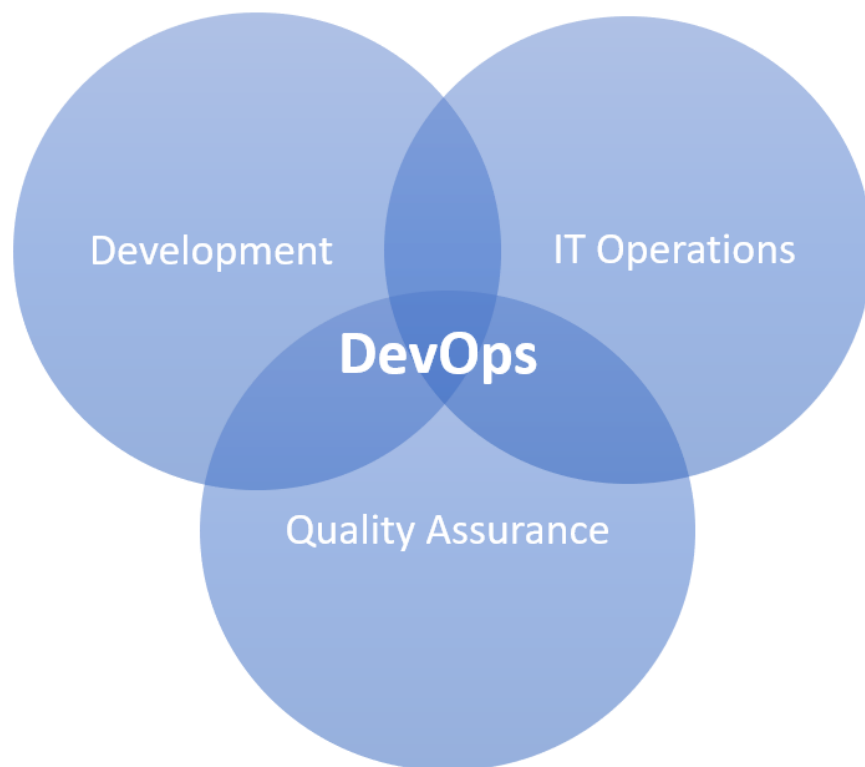
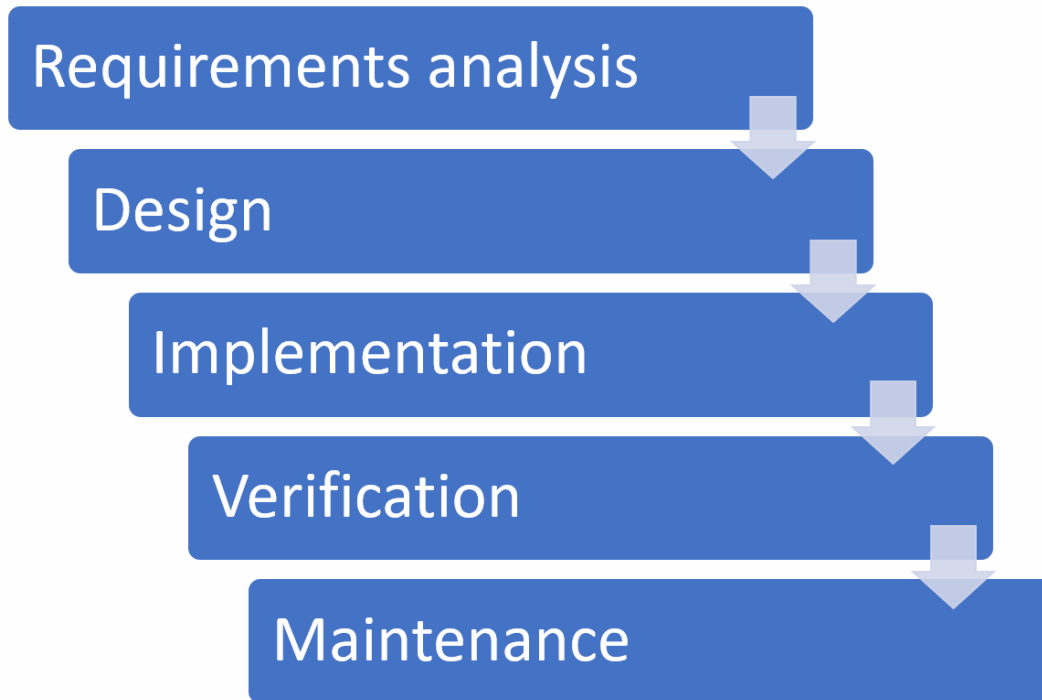
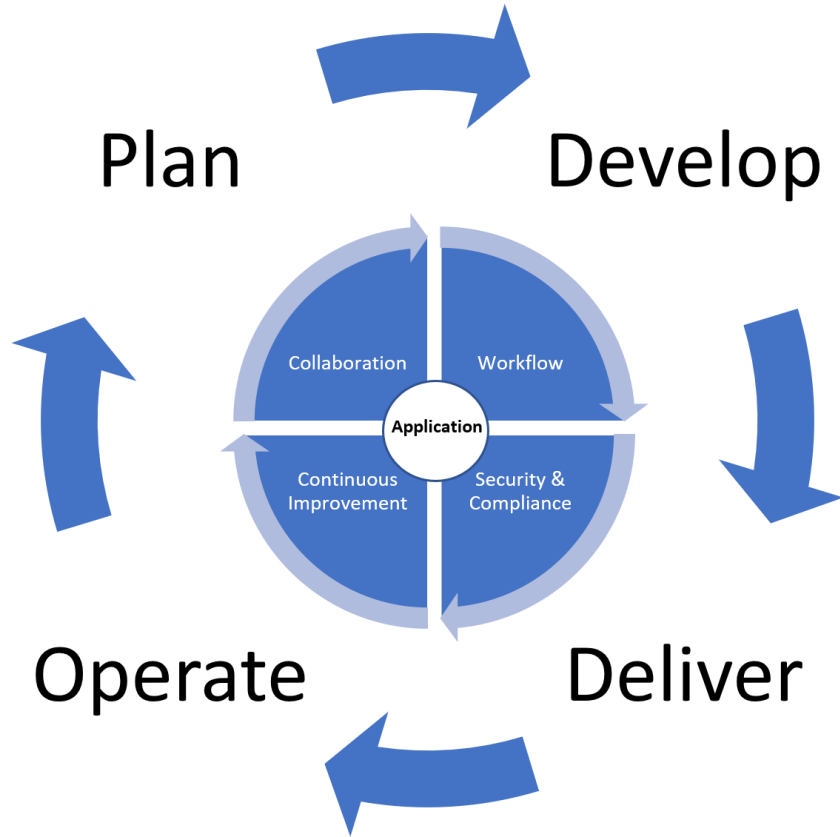


## Chapter 1: Azure DevOps Overview





**Azure DevOps** | sjoukjezaal / Tailwind Traders / Boards / Boards

Search

**Tailwind Traders** | Tailwind Traders Team

Board | Analytics | View as Backlog

Stories

New	Active <span>4/5</span>	Resolved <span>3/5</span>	Closed
<p><b>125</b> As developer, I want to use Azure Machine Learning to provide a recommendations engine behind the website.</p> <p>State: ● New</p>	<p><b>121</b> As a User, I want to add items to my shopping cart</p> <p>State: ● Active</p> <p>2/4</p>	<p><b>128</b> As an admin, I want to generate coupons for customers</p> <p>State: ● Resolved</p>	<p><b>120</b> As a User I want to view products from a certain category</p> <p>State: ● Closed</p> <p>3/3</p>
<p><b>126</b> As a admin, I should be able to update prices on ad-hoc condition</p> <p>State: ● New</p>	<p><b>122</b> As a User I want to view my user profile</p> <p>State: ● Active</p> <p>0/2</p>	<p><b>130</b> As a User I want to view my discounts coupons</p> <p>State: ● Resolved</p>	<p><b>129</b> As a User, I want to change quantity of items in my shopping cart</p> <p>State: ● Closed</p> <p>1/1</p>
<p><b>127</b> As a user, I want to be able to update the frequency and type of newsletters to receive</p> <p>State: ● New</p>	<p><b>123</b> As a User I want to view product details</p> <p>State: ● Active</p>	<p><b>131</b> As a user, I want to choose to unsubscribe newsletters</p> <p>State: ● Resolved</p>	<p><b>134</b> As a user, I want to subscribe to newsletters</p> <p>State: ● Closed</p> <p>1/1</p>
<p><b>132</b> As a User, I should be able to select different shipping option</p> <p>State: ● New</p>	<p><b>124</b> As a User, I want to be able to modify my particulars</p> <p>State: ● Active</p>		

Azure DevOps / Tailwind Traders / Repos / Commits / TailwindTraders-Website

New Repos pull request experience: Try out the new modern, fast, and mobile-friendly pull request experience within Repos. [Learn more](#) Not now Try it!

master

### Commits

Graph	Commit	Pull Request	Status
	<b>spelling (#106)</b> 7aa60192 Shayne Boyer Apr 3 at 11:32 PM		
	<b>aks workflow: use secrets instead of env</b> 1841e107 Eduard Tomàs Mar 11 at 7:31 PM		
	<b>Reviewing aks secrets</b> 95c02571 Eduard Tomàs Mar 11 at 7:24 PM		
	<b>Update aks pipeline: avoid pwsh to run helm</b> 2d12391d Eduard Tomàs Mar 11 at 7:11 PM		
	<b>Merge pull request #78 from ivilches/master</b> 39da1e8e Eduard Tomàs Mar 11 at 6:50 PM		
	<b>Feature/ghaction aks (#9)</b> 33ac3481 ivilches Feb 3 at 2:44 PM		
	<b>Documentation for GitHub actions.</b> 91b581fd ivilches@plainconcepts.com Jan 28 at 1:18 PM		

Azure DevOps / Tailwind Traders / Pipelines / Website-Cl / 25

#25 spelling (#106) on Website-Cl Cancel ⋮

Summary Releases

Manually run by Sjoukje Zaal View 250 changes

Repository and version	Time started and elapsed	Related	Tests and coverage
TailwindTraders-Website master 7aa6019	Just now	0 work items 0 artifacts	<a href="#">Get started</a>

### Jobs

Name	Status	Duration
Agent job 1	Queued	

Azure DevOps | sjoukjezaal / Parts Unlimited / Test Plans / Test plans\*

172 : Provide tentative duration for shipping. (ID: 297)

Apr 20 - May 11 | Current | 0% run. View report

Define | Execute | Chart

Test Suites

- Parts Unlimited\_TestPlan1
  - 172 : Provide tentative dur... (1 ...)
  - 159 : Provide related items or... (...)
  - 173 : Notify the user about ... (...)
  - 169 : As a customer, I would ... (...)
  - 163 : As a customer, I would l... (...)
  - 162 : As a customer, I shoul... (...)
  - 165 : As a customer, I would li... (...)
  - 176 : As a customer, I would l... (...)
  - 175 : As a customer, I would l... (...)
  - 174 : As a admin, I should be... (...)
  - 161 : As a customer, I shoul... (...)

Test Points (1 item)

- Title | Outcome
- Verify that the tentative date is displayed for shipping the product | Active

Run for web application

Azure DevOps | sjoukjezaal / Tailwind Traders / Artifacts / Packages

You can now search for packages across feeds. Try searching for a package in the search box. Learn more.

Connect to feed | Tailwind\_Feed

NuGet.exe | Command line reference | Get the tools

First time using Azure Artifacts with NuGet.exe on this machine? | Get the tools

Project setup

Add a nuget.config file to your project, in the same folder as your .csproj or .sln file

```
<?xml version="1.0" encoding="utf-8"?>
<configuration>
  <packageSources>
    <clear />
    <add key="Tailwind_Feed" value="034b49bc-fff1-41a1-84da-183e72bc0869/_packaging/Tailwind_Feed/nuget/v3/index.json" />
  </packageSources>
</configuration>
```

Restore packages

Run this command in your project directory







```
nuget.exe restore
```

Visual Studio | Visual Studio Code | **Azure DevOps** | Subscriptions | Build your own | Publish extensions







## Extensions for Azure DevOps

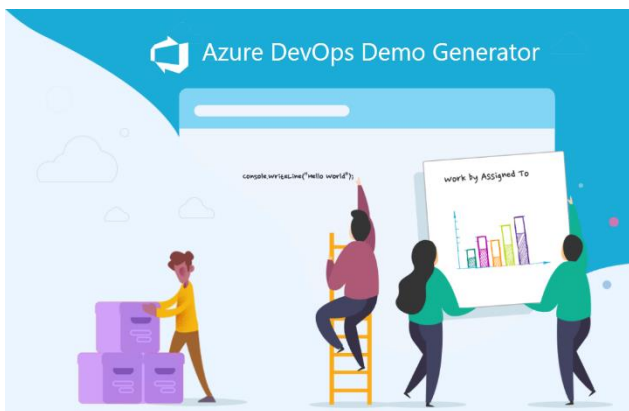
Search Azure DevOps extensions

**Featured**

 <p><b>Timetracker</b> 7pace ★★★★★ 12.9K FREE TRIAL</p>	 <p><b>Azure Cost Insights</b> Kees Schollaart ★★★★★ 3.1K FREE</p>	 <p><b>Code Quality NDepend</b> independ ★★★★★ 1.5K FREE TRIAL</p>	 <p><b>Visual Studio IntelliCode</b> Microsoft ★★★★★ 635 FREE</p>	 <p><b>Bravo Notes</b> Agile Extensions ★★★★★ 577 FREE TRIAL</p>	 <p><b>Azure Boards Slack app</b> Microsoft ★★★★★ 68 FREE</p>
--	---	---	--	---	--

**Most Popular** [See more](#)

 <p><b>Code Search</b> Microsoft ★★★★★ 135K FREE</p>	 <p><b>Test &amp; Feedback</b> Microsoft ★★★★★ 131K FREE</p>	 <p><b>Azure DevOps Open Tools</b> Microsoft DevLabs ★★★★★ 96.5K FREE</p>	 <p><b>SonarQube</b> SonarSource ★★★★★ 43.2K FREE</p>	 <p><b>Delivery Plans</b> Microsoft ★★★★★ 37.1K FREE</p>	 <p><b>Replace Tokens</b> Guillaume Rochon ★★★★★ 36K FREE</p>
---	---	--	--	---	--



### AZURE DEVOPS DEMO GENERATOR

Azure DevOps Demo Generator helps you create projects on your Azure DevOps Organization with pre-populated sample content that includes source code, work items, iterations, service endpoints, build and release definitions based on a template you choose. [Read more](#)

The purpose of this system is to simplify working with the Azure DevOps hands-on-labs, demos and other education material provided by the Microsoft Azure Marketing team.

[Sign In](#)


Don't have an Azure DevOps Organization?

[Get started for free >](#)

New Project Name :

Select Organization :

Selected Template :


 **Azure DevOps Demo Generator now supports GitHub forking!**

The selected template includes a GitHub repository. You can choose to fork it or use the existing repo. If you fork, all pipelines will be updated to point to the forked repo.

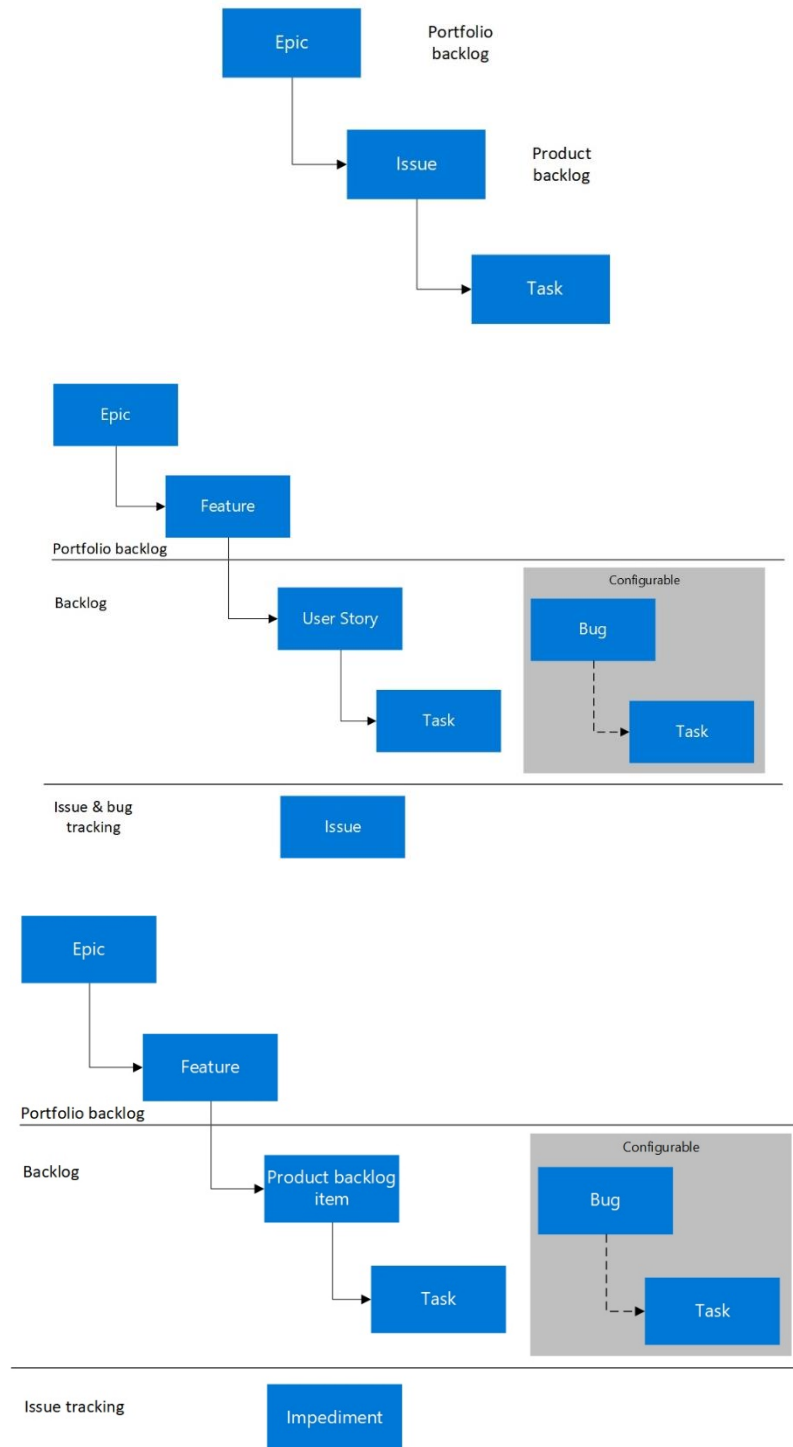
Yes, I want to fork this repository

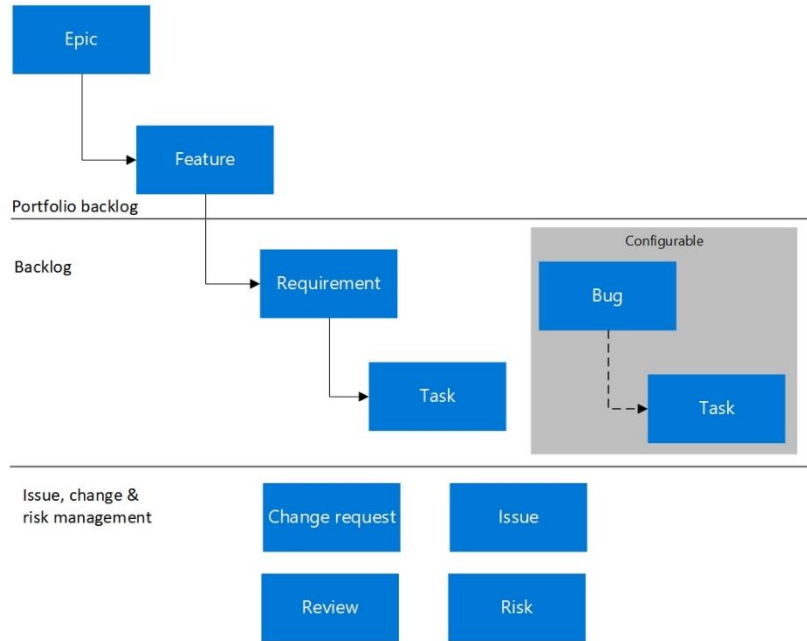
**Verifying if all required extension(s) are installed and enabled**

All required extensions are installed/enabled in your Azure DevOps Organization.

 **ARM Outputs**

# Chapter 2: Managing Projects with Azure DevOps Boards

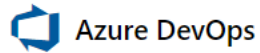




## Azure DevOps

The screenshot shows the Azure DevOps user interface. On the left sidebar, the **New organization** button is highlighted with a red rectangular box. A red arrow points from this box towards the main content area. The main content area displays the **Projects** tab, showing a list of organizations. The first organization listed is **Tailwind Traders**, with the initials **TT** in a purple square and the text "Generated by Azure DevOps Demo Generator". Below the organization name are five small grey dots representing a horizontal menu.





Switch directory

## Almost done...

Name your Azure DevOps organization

dev.azure.com/ PacktLearnDevOps

We'll host your projects in

West Europe

Continue

## Create a project to get started

Project name \*

LearnDevOps

Visibility



Public

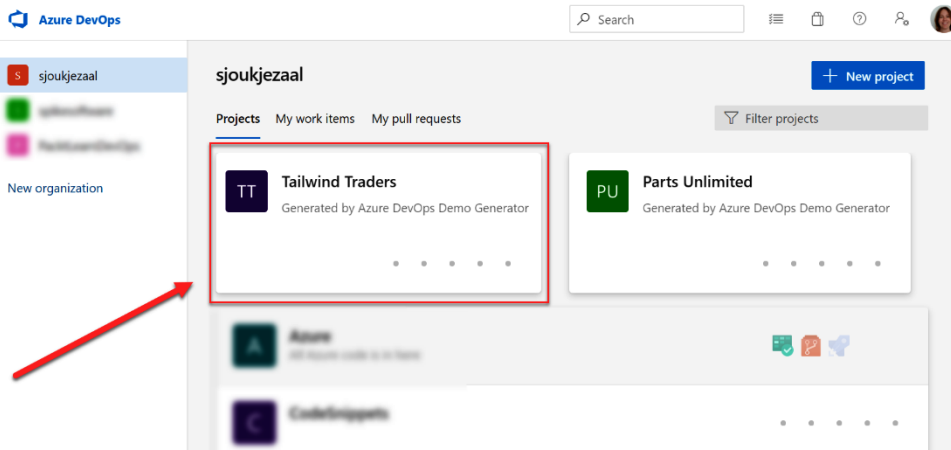
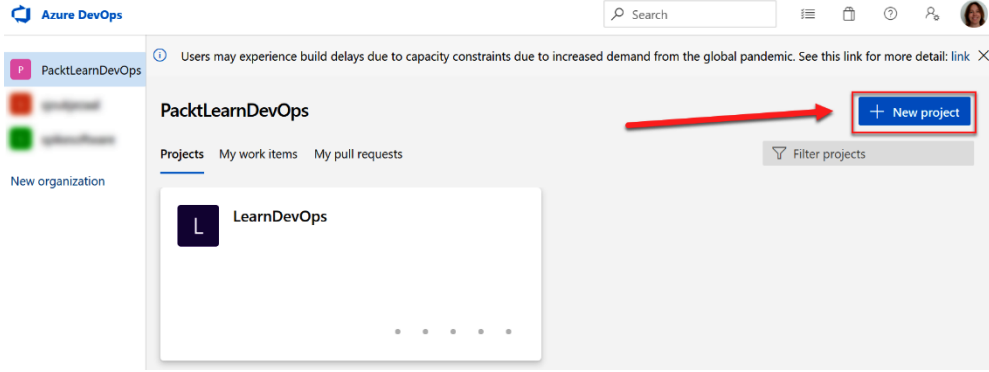
Anyone on the internet can view the project. Certain features like TFVC are not supported.



Private

Only people you give access to will be able to view this project.

+ Create project



**Azure DevOps** / Overview / Summary

**Tailwind Traders** Private Invite

**About this project** Like 0

Generated by Azure DevOps Demo Generator

**Boards**

- Work items
- Boards
- Backlogs
- Sprints
- Queries

Boards

0 Work items created Last 7 days 0 Work items completed

**Azure DevOps** / Boards / Work items

**Tailwind Traders** **Work items**

Recently updated | + New Work Item | Open in Queries

Filter by keyword | Types | Assigned to | States | Area

ID	Title	Assigned To
115	Test Plan 1.0	Unassigned
136	As a User, I want to view my past orders	Unassigned
135	As an admin, I want to set order limit for free shipping	Unassigned
133	As a User, I want to remove items from my shopping cart	Unassigned
132	As a User, I should be able to select different shipping option	Unassigned
131	As a user, I want to choose to unsubscribe newsletters	Unassigned
130	As a User I want to view my discounts coupons	Unassigned
128	As an admin, I want to generate coupons for customers	Unassigned
127	As a user, I want to be able to update the frequency and type of n...	Unassigned

**Tailwind Traders** +

Work items

Recently updated ▾ | + New Work Item ▾ | → Open in Queries 🔗 Column

Filter by keyword

ID	Title	Types
115	Te	
136	As	orders
135	As	limit for free shipping
133	As a User, I want to remove items from my shopping cart	
132	As a User, I should be able to select different shipping option	
131	As a user, I want to choose to unsubscribe newsletters	

- Bug
- Epic
- Feature
- Issue
- Task
- Test Case
- User Story

Description Planning Deployment

User I

Accepta

Click to

Discussi

As

**Add link**

You are adding a link from:

User I want to edit my user profile

Link type

Found in build

Build

Build

Found in build

Integrated in build

Code

Branch

Changeset

Commit

Pull Request

Versioned Item

GitHub

GitHub Commit

GitHub Pull Request

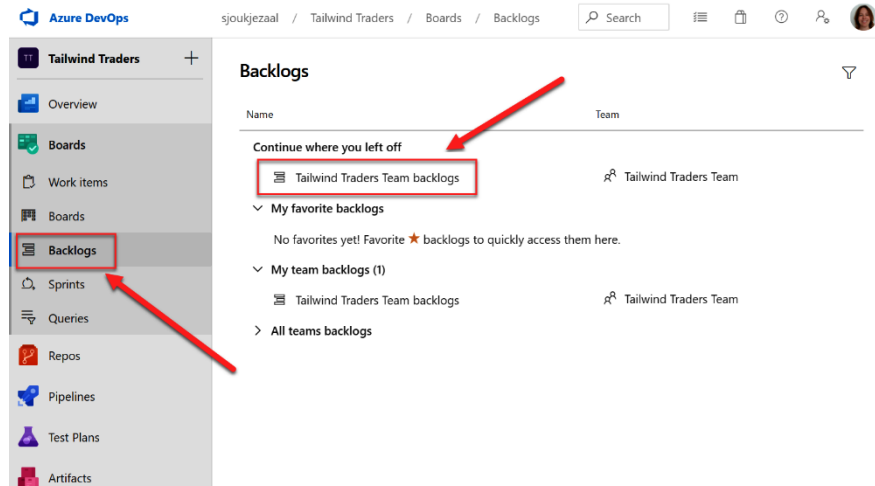
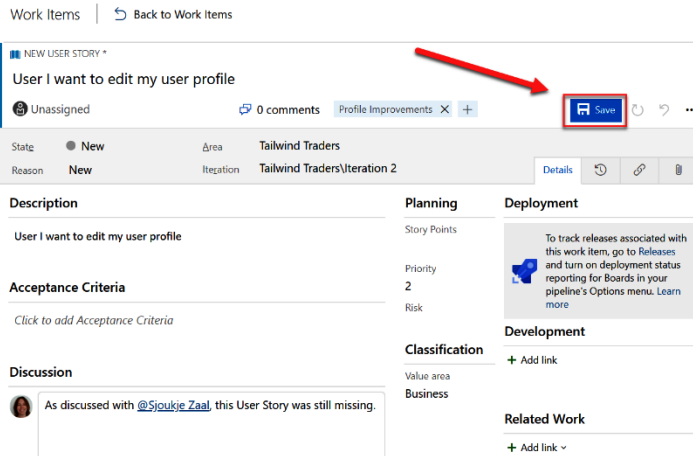
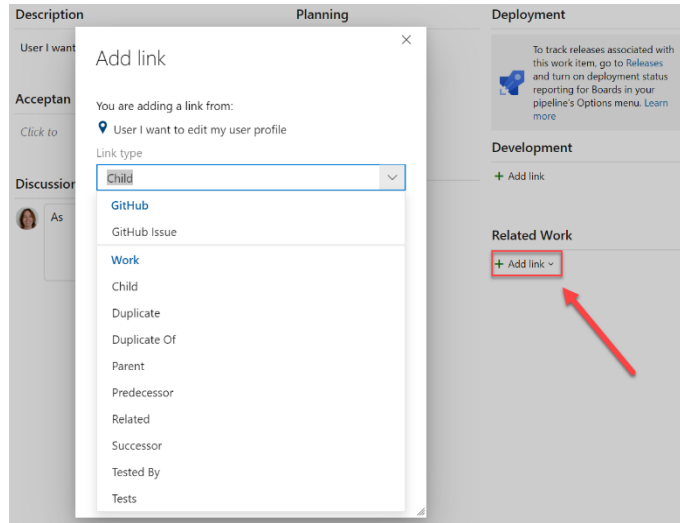
To track releases associated with this work item, go to Releases and turn on deployment status reporting for Boards in your pipeline's Options menu. Learn more

Development

+ Add link

Related Work

+ Add link ▾



Order	Work Item Type	Title
1	User Story	As a User, I want to add items to my shopping car
2	User Story	As a User I want to view my user profile
3	User Story	As a User I want to view product details
4	User Story	As a User, I want to be able to modify my particula
5	User Story	As developer, I want to use Azure Machine Learnin

Planning

Drag and drop work

Tailwind Traders

Iteration 2

Current

- Epics
- Features
- Stories

Order	Work Item Type	Title
1	User Story	As a User, I want to add items to my shopping cart
	Task	As a User I want to view a public landing page with static
	Task	As a User I want to see a list of recommended product
	Task	Shows the total price of all items
	Task	Create a new route and view for cart
2	User Story	As a User I want to view my user profile
3	User Story	As a User I want to view product details
4	User Story	As a User, I want to be able to modify my particulars
5	User Story	As developer, I want to use Azure Machine Learning to prov
6	User Story	As a admin, I should be able to update prices on ad-hoc cor
7	User Story	As a user, I want to be able to update the frequency and typ
8	User Story	As an admin, I want to generate coupons for customers
9	User Story	As a User I want to view my discounts coupons
10	User Story	As a user, I want to choose to unsubscribe newsletters
11	User Story	As a User, I should be able to select different shipping
12	User Story	As a User, I want to remove items from my shopping
13	User Story	As an admin, I want to set order limit for free shipping
14	User Story	As a User, I want to view my past orders
15	User Story	As a User I want to edit my user profile

Planning

Drag and drop work items to include them in a sprint.

Tailwind Traders Team Backlog

Iteration 2 **Current** 4/20/2020 - 5/11/2020  
Planned Effort: - 16 working days  
8 4

Iteration 3 5/12/2020 - 6/2/2020  
Planned Effort: - 16 working days  
3

+ New Sprint

Order	Work Item Type	Title
1	User Story	As a User, I want to add items to my shopping cart
	Task	As a User I want to view a public landing page with stati
	Task	As a User I want to see a list of recommended product
	Task	Shows the total price of all items
	Task	Create a new route and view for cart
2	User Story	As a User I want to view my user profile
3	User Story	As a User I want to edit my user profile
4	User Story	As a User I want to view product details
5	User Story	As a User, I want to be able to modify my particulars
6	User Story	As developer, I want to use Azure Machine Learning to pro
7	User Story	As a admin, I should be able to update prices on ad-hoc
8	User Story	As a user, I want to be able to update the frequency and
9	User Story	As an admin, I want to generate coupons for customers
10	User Story	As a User I want to view my discounts coupons

Planning

Drag and drop work items to include them in a sprint.

Tailwind Traders Team Backlog

Iteration 2 **Current** 4/20/2020 - 5/11/2020  
Planned Effort: - 16 working days  
8 4

Iteration 3 5/12/2020 - 6/2/2020  
Planned Effort: - 16 working days  
3

+ New Sprint

Tailwind Traders Team

Backlog Analytics + New Work Item View as Board Column Options ... Stories

Order	Work Item Type	Title
+ Epic	Shopping Cart	
Feature	Product Catalog	
User Story		As a User I want to view product details
Feature	Price Catalog	
User Story		As a admin, I should be able to update prices on ad-h
Feature	Purchase	
User Story		As a User, I want to add items to my shopping cart
User Story		As developer, I want to use Azure Machine Learning
User Story		As a User, I want to remove items from my shopping
User Story		As a User, I want to view my past orders
Epic	Loyalty Membership	
Feature	Loyalty points	
User Story		As an admin, I want to generate coupons for custome
User Story		As a User I want to view my discounts coupons
Epic	Customer Management	
Feature	Membership signup	
User Story		As a User I want to view my user profile

**Planning**  
Drag and drop

Tailwind Trad  Off

In Progress Items  
Planned Effort: -  On

Completed Child Items  
 On

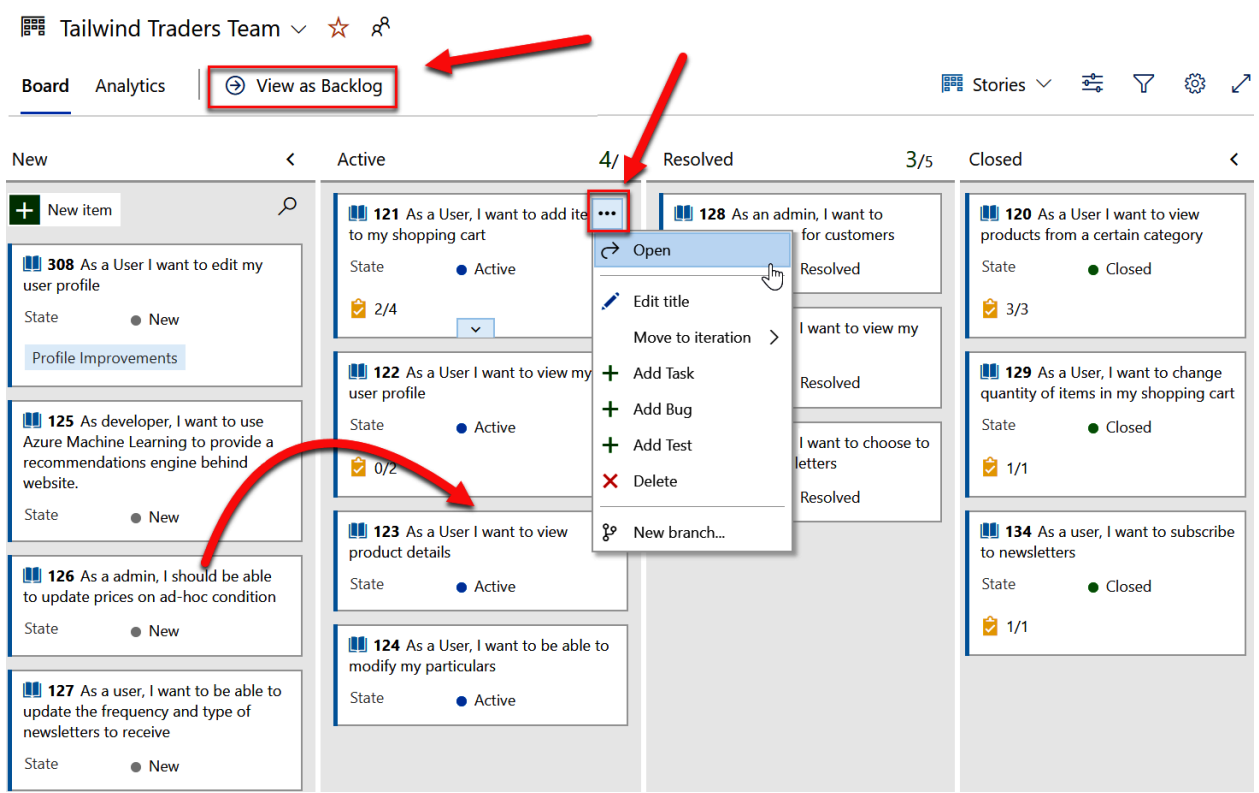
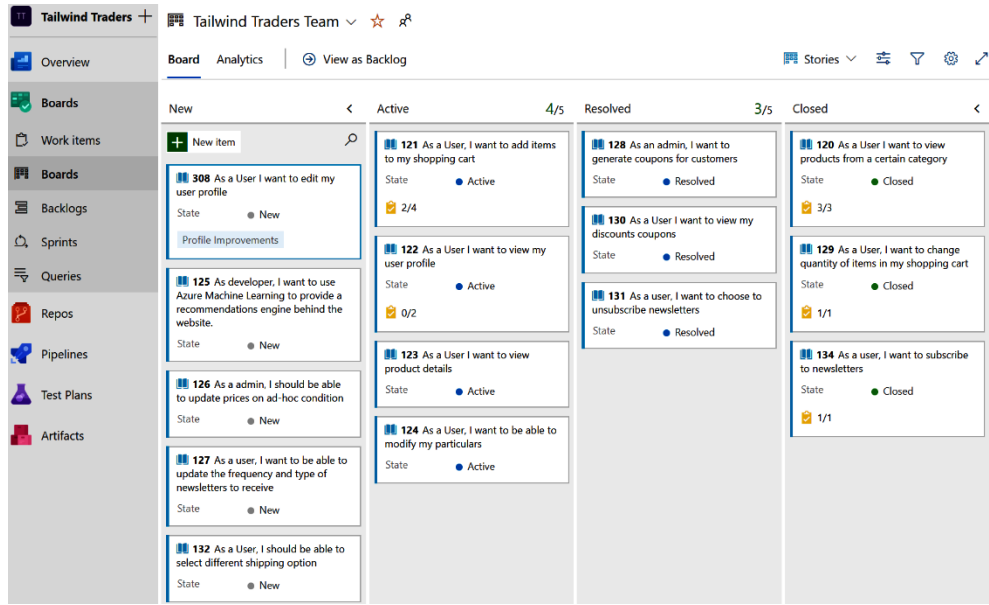
Side Pane

Mapping

Planning

Off

- Epic > Loyalty Membership
    - Feature > Loyalty points
      - User Story As an admin, I want to generate coupons for customer
      - User Story As a User I want to view my discounts coupons
  - Epic > Customer Management
    - Feature > Membership signup
      - User Story > As a User I want to view my user profile
    - User Story As a User, I want to be able to modify my particulars
    - User Story As a user, I want to choose to unsubscribe newsletters
  - Feature > Newsletter
    - User Story As a user, I want to be able to update the frequency at
  - Epic > Payments
    - Feature > Shipping & Delivery
      - User Story As a User, I should be able to select different shipping
      - User Story As an admin, I want to set order limit for free shipping
  - > Unparented Features
  - > Unparented Stories
- + User Story As a User I want to edit my user profile





Tailwind Traders Team ☆ 🔊 April 20 - May 11  
1 work day remaining

Taskboard **Backlog** Capacity Analytics | + New Work Item | Column Options ... | Iteration 2 🔍 🔧 🔗

Order	Title
1	As a User, I want to add items to my shopping cart
2	As a User I want to view my user profile
3	As a User I want to edit my user profile
4	As a User, I want to be able to modify my particulars
5	As a user, I want to be able to update the frequency and typ...
6	As an admin, I want to generate coupons for customers
7	As a User I want to view my discounts coupons
8	As a user, I want to choose to unsubscribe newsletters

**Planning** ✕

Drag and drop work items to include them in a sprint.

Tailwind Traders Team Backlog

**Iteration 2** Current 4/20/2020 - 5/11/2020  
Planned Effort: - 16 working days  
📊 8 🏆 4

**Iteration 3** 5/12/2020 - 6/2/2020  
Planned Effort: - 16 working days  
📊 3

+ New Sprint

Tailwind Traders Team ☆ 🔊 April 20 - May 11  
1 work day remaining

Taskboard Backlog Capacity Analytics | + New Work Item ... | Iteration 2 🔍 👤 Person: All 🔍 🔧 🔗

⌵ Collapse all

	New	Active	Resolved	Closed
<p>📄 121 As a User, I want to add items to my shopping cart</p> <p>📧 Unassigned</p> <p>State <span>● Active</span></p>	<p>📄 91 Shows the total price of all items</p> <p>📧 Unassigned</p> <p>State <span>● New</span></p> <p>+ </p>	<p>📄 92 Create a new route and view for cart</p> <p>📧 Unassigned</p> <p>State <span>● Active</span></p>		
<p>📄 122 As a User I want to view my user profile</p> <p>📧 Unassigned</p> <p>State <span>● Active</span></p>	<p>📄 89 Route to login screen if not signed in or upon timeout</p> <p>📧 Unassigned</p> <p>State <span>● New</span></p> <p>+ </p>	<p>📄 88 Update DB schema</p> <p>📧 Unassigned</p> <p>State <span>● Active</span></p>		
<p>📄 308 As a User I want to edit my user profile</p> <p>📧 Unassigned</p> <p>State <span>● New</span></p> <p>Profile Improv...</p> <p>+ </p>				
<p>📄 124 As a User, I want to be able to modify my particulars</p> <p>📧 Unassigned</p> <p>State <span>● Active</span></p> <p>+ </p>				

Collapse all

New

Active

Resolved

Closed

121 As a User, I want to add items to my shopping cart

Unassigned

State Active

91 Shows the total price of all items

Unassigned

State New

92 Create a new route and view for cart

Unassigned

State Active

122 As a User I want to view my user profile

Unassigned

State Active

89 Route to login screen if not signed in or upon timeout

Unassigned

State New

88 Update DB schema

Unassigned

State Active

Tailwind Traders

Overview

Boards

Work items

Boards

Backlogs

Sprints

Queries

Repos

Pipelines

Test Plans

Artifacts

### Queries

Favorites All **+ New query** Import Work Items Filter by keywords

Title	Folder	Last modified by
My favorites		
No favorites yet! Favorite a query to quickly access it here.		

Type of query Flat list of work items

Query across projects

Filters for top level work items

And/Or	Field*	Operator	Value
+ X <input type="checkbox"/>	Work Item Type	=	User Story
+ X <input type="checkbox"/>	Tags	Contains	Profile Improvements

+ Add new clause

Queries > My Queries

1 work item  
1 selected

Results **Editor** Charts | ▶ Run query + New ▾ 📄 Save query ↶ Revert changes 🛠 Column options ... ↗

Type of query 📄 Flat list of work items

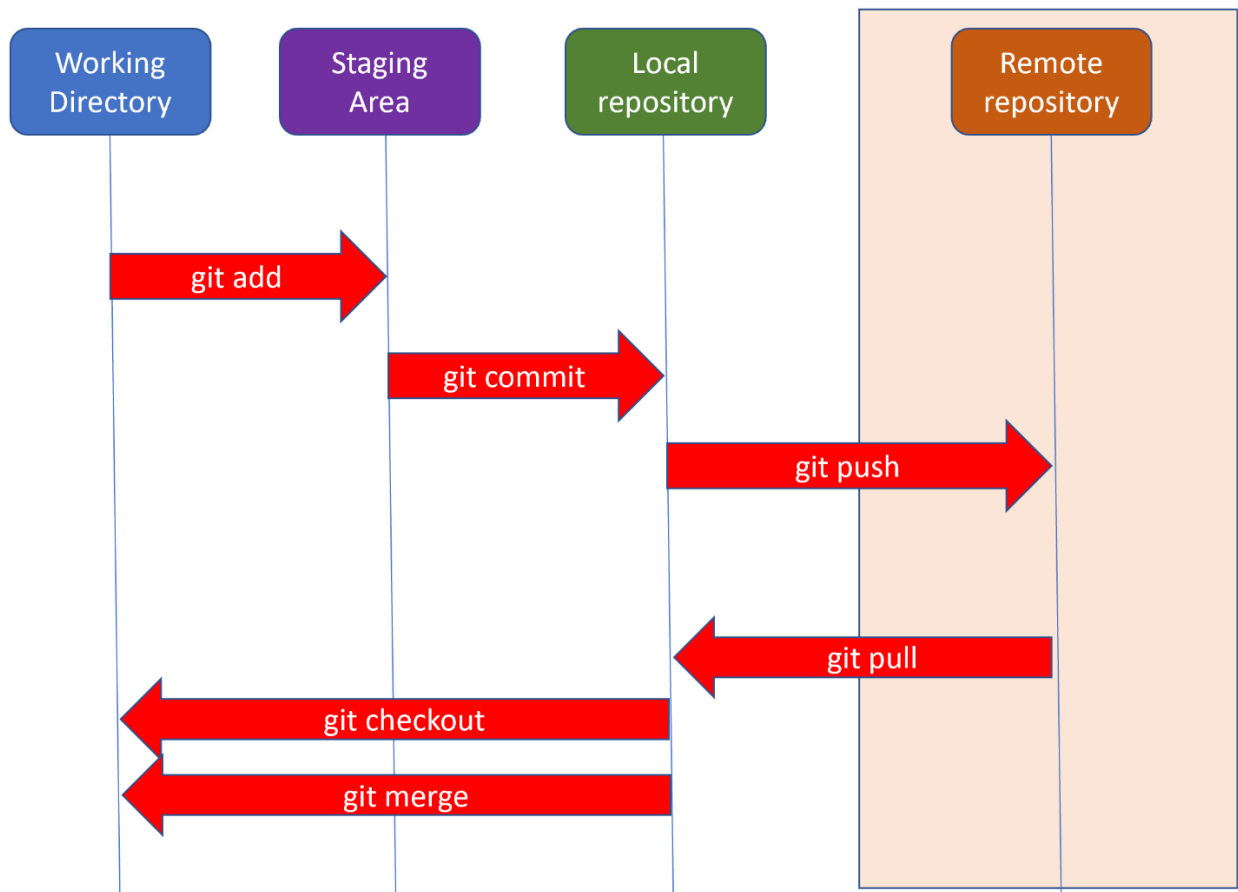
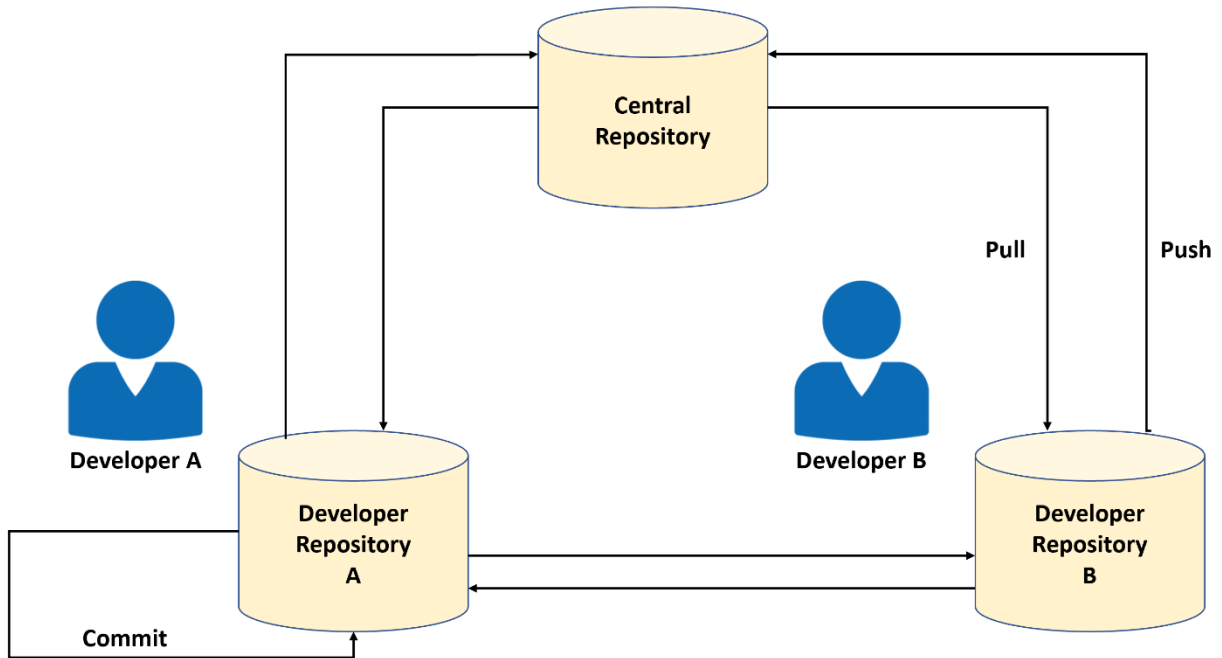
Query across projects

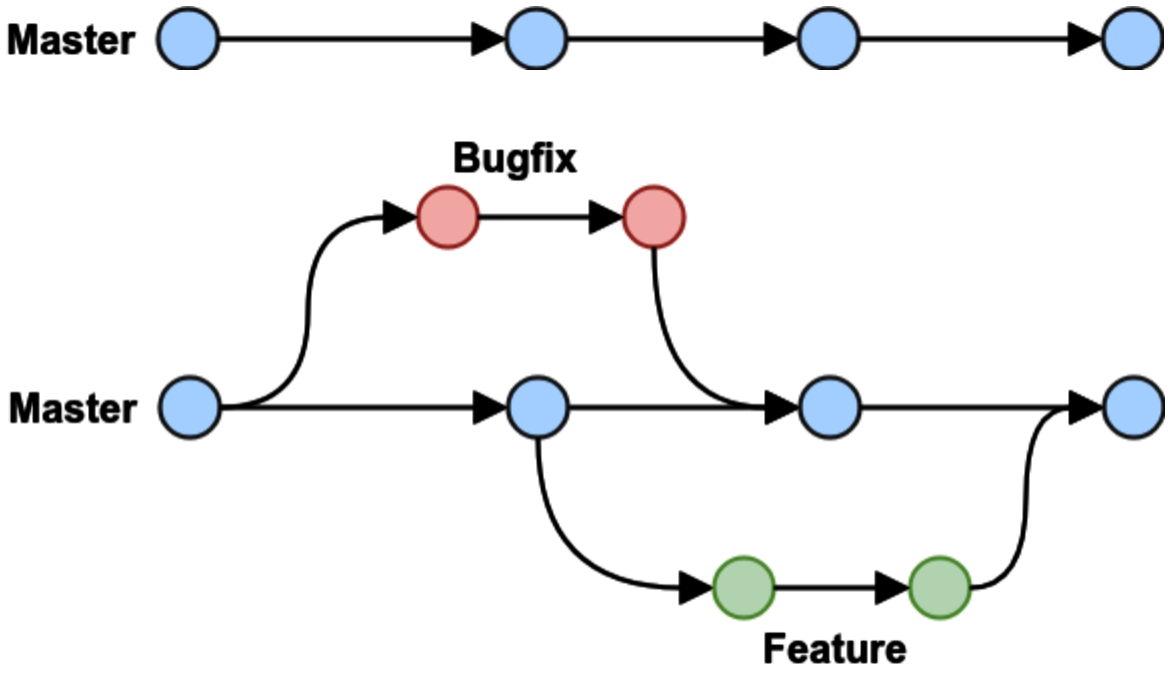
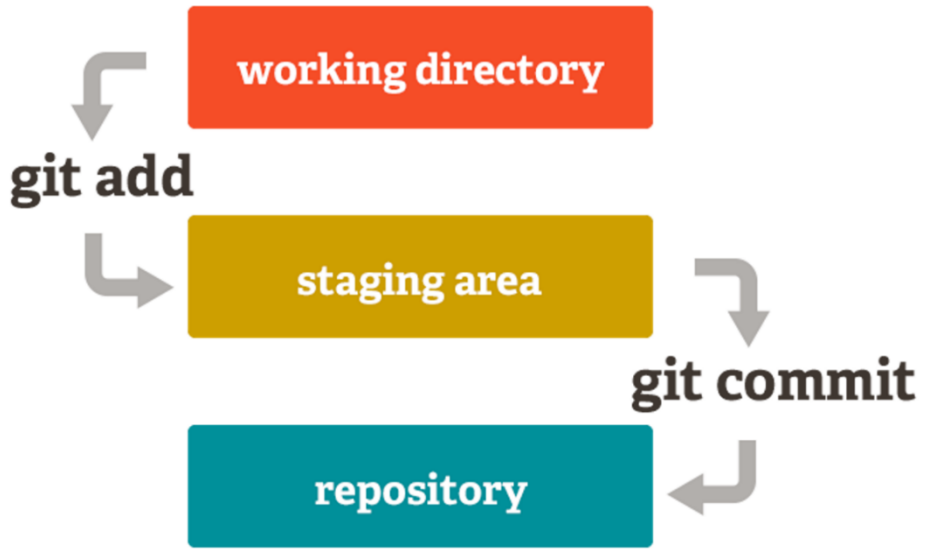
Filters for top level work items

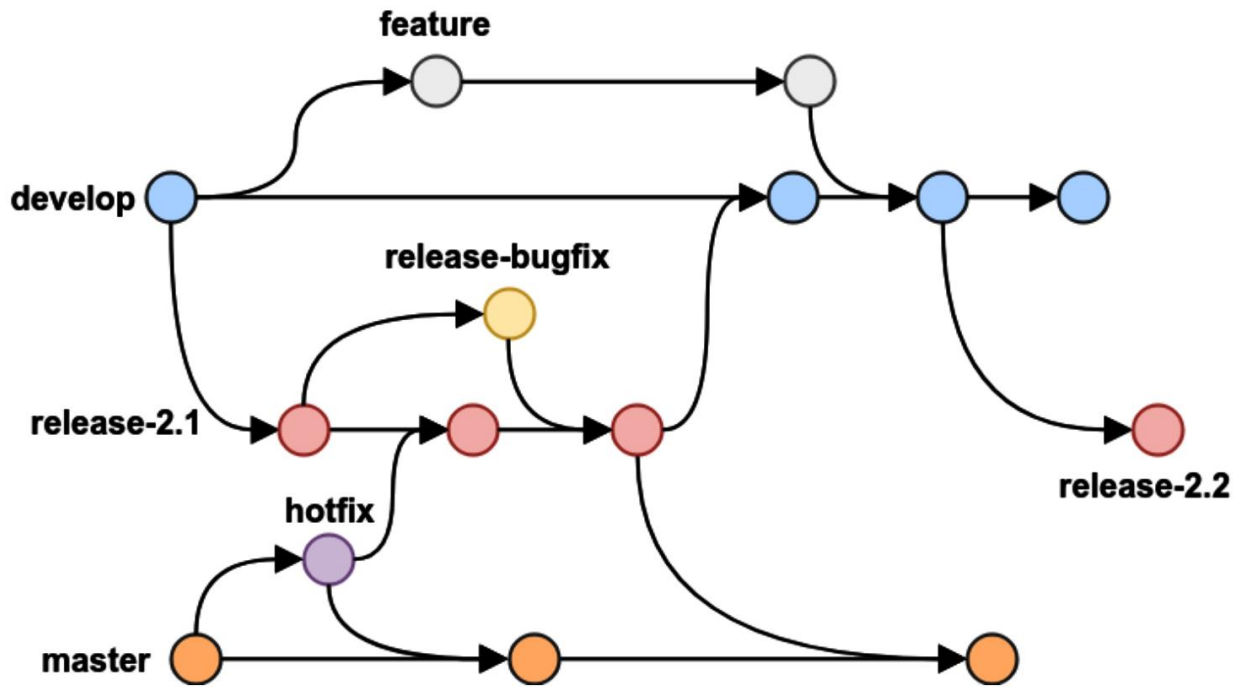
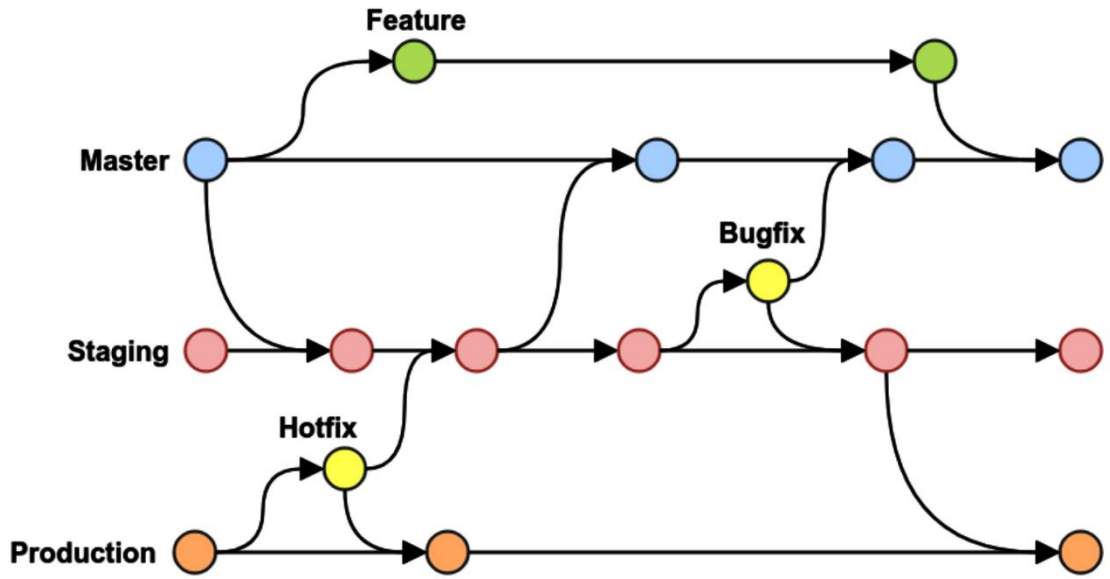
	And/Or	Field*	Operator	Value
+ X <input type="checkbox"/>		Work Item Type	=	User Story
+ X <input type="checkbox"/>	And ▾	Tags	Contains	Profile Improvements
+ Add new clause				

ID	Work Item...	Title	Assigned To	State	Tags
308	User Story	👤 As a User I want to edit my user profile	...	● New	Profile Improvements

# Chapter 3: Source Control Management with Azure DevOps











# Create new project



Project name \*


Description


## Visibility

 <b>Public</b>  Anyone on the internet can view the project. Certain features like TFVC are not supported.	 <b>Private</b>  Only people you give access to will be able to view this project.
--	--


Public projects are disabled for your organization. You can turn on public visibility with [organization policies](#).


## Advanced

Version control 

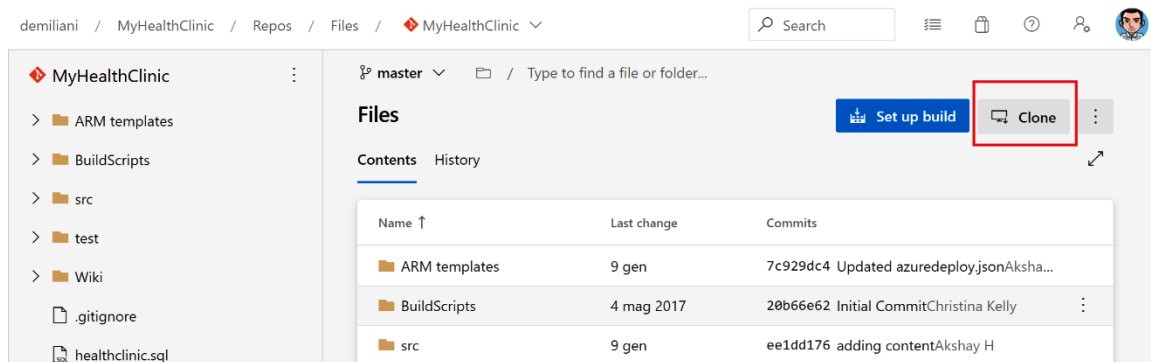
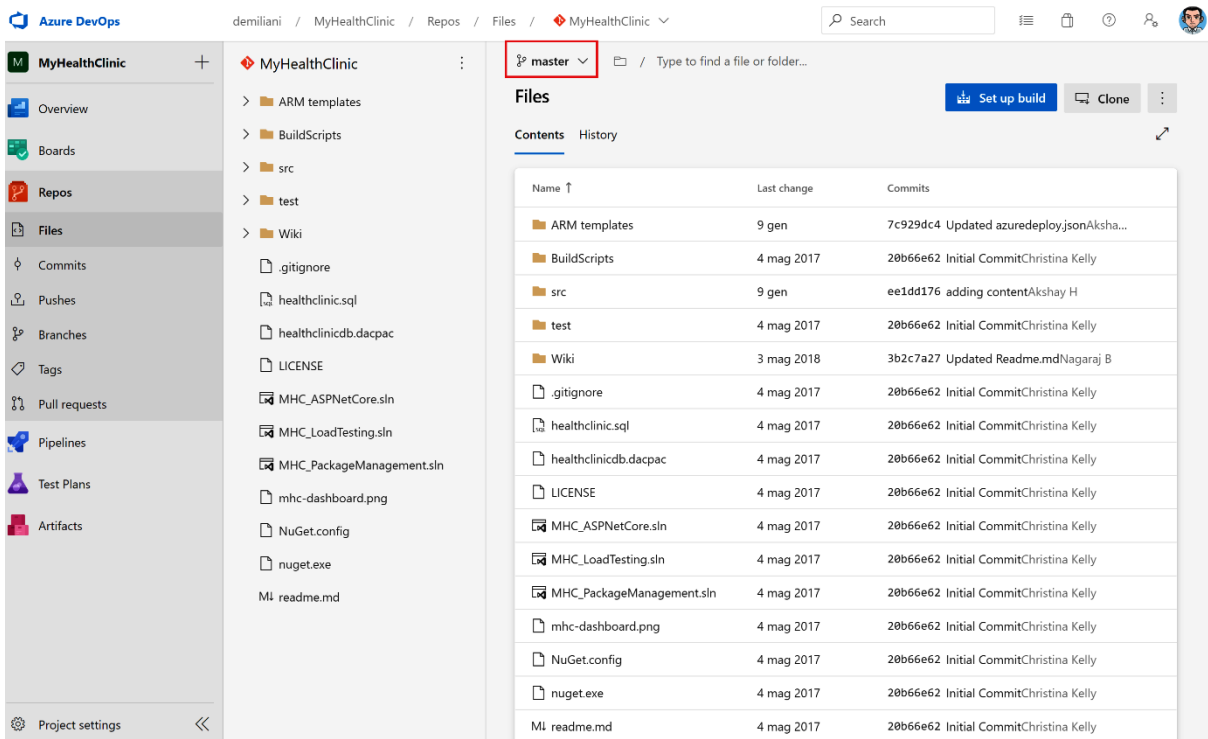
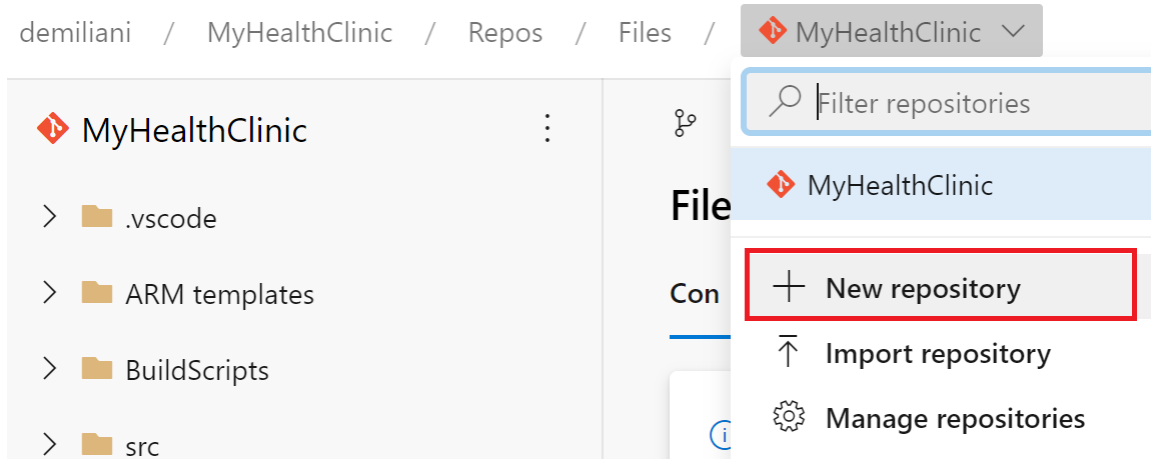
Git 

- Git
- Team Foundation Version Control

Work item process 

Agile 

- Overview
- Boards
- Repos**
- Files
- Commits
- Pushes
- Branches
- Tags
- Pull requests
- Pipelines
- Test Plans
- Artifacts





## Clone Repository



Command line

HTTPS

SSH

https://demiliani@dev.azure.com/demilia



Generate Git Credentials

IDE

Clone in VS Code

Android Studio

CLion

DataGrip

Eclipse

IntelliJ IDEA

PhpStorm

PyCharm

RubyMine


Tower

Visual Studio

VS Code

WebStorm

Git? Be sure to get the latest version  
IntelliJ, Eclipse, Android Studio or

**i** Cloning git repository 

'https://demiliani@dev.azure.com/demiliani/MyHealthClinic/\_git/MyHealthClinic'...

Source: Git (Extension) Cancel

File Edit Selection View Go Run Terminal Help Welcome - Visual Studio Code

Start

>git

**Git: Clone** recently used

Git: Initialize Repository

MyHealth... >



Cerca in MyHealthClinic



Nome

- .git
- ARM templates
- BuildScripts
- src
- test
- Wiki
- .gitignore
- healthclinic.sql
- healthclinicdb.dacpac
- LICENSE
- MHC\_ASPNetCore.sln
- MHC\_LoadTesting.sln
- MHC\_PackageManagement.sln
- mhc-dashboard.png
- NuGet.config
- nuget.exe
- readme.md

Extension: Azure Repos X



Azure Repos

ms-vsts.team

Microsoft

1,065,524



Repository

License

Connect to Azure Repos and work with Git and Team Foundation Version Control (TFVC) repositories. Manage your pull requests, work items, and more.

Disable

Uninstall

This extension is enabled globally.

```
> team
Team: Signin recently used
Team: Create Pull Request
Team: Associate Work Items
Team: Create Bug other commands
Team: Create Task
Team: Create Work Item
Team: Send Feedback
Team: Signout
Team: View Blame
Team: View Build Summary
Team: View History
Team: View Pull Requests
Team: View Website
Team: View Work Item Queries
Team: View Work Items
```

### TestApp is empty. Add some code!

#### Clone to your computer

**HTTPS** SSH  OR **Clone in VS Code**

[Generate Git Credentials](#)

Having problems authenticating in Git? Be sure to get the latest version [Git for Windows](#) or our plugins for [IntelliJ](#), [Eclipse](#), [Android Studio](#) or [Windows command line](#).

#### Push an existing repository from command line

**HTTPS** SSH

#### Import a repository

[Import](#)

**Import a Git repository** ✕

Repository type

Clone URL \*

Requires Authentication

**On its way!**



 Processing request

Importing <https://github.com/demiliani/afzipdeployment.git>

We'll send you a notification when it's ready. For now, you can work on some other project or just take a moment to sit back, relax and enjoy your day.

TestApp

AzureFunctionZipDeploy.ps1

MI README.md

Files

Contents History

Name ↑	Last change	Commits
AzureFunctionZipDeploy.ps1	Mar 26	bcf9d756 Add files via uploadStefano Demili...
MI README.md	Mar 26	bdcc1b47 Update README.mdStefano Demili...

**Azure Functions Zip Deployment**

This repository contains a Powershell script (Azure CLI) for deploying Azure Functions quickly by using Zip Deployment. Link for more informations here: (<https://demiliani.com/2020/03/26/a-quick-way-to-deploy-your-azure-functions-in-the-cloud/>)

Commits

Graph	Commit	Pull Request	Status
	<b>Update README.md</b> bdcc1b47 Stefano Demiliani Mar 26 at 4:04 PM		
	<b>Add files via upload</b> bcf9d756 Stefano Demiliani Mar 26 at 3:59 PM		
	<b>Update README.md</b> 541b6ef4 Stefano Demiliani Mar 26 at 3:58 PM		
	<b>Initial commit</b> 9fa569ab Stefano Demiliani Mar 26 at 3:56 PM		

File Edit Selection View Go Run Terminal Help MedicinesController.cs - MyHealthClinic - Visual Studio Code

EXPLORER

OPEN EDITORS

- MedicinesController.cs src\My... M

MYHEALTHCLINIC

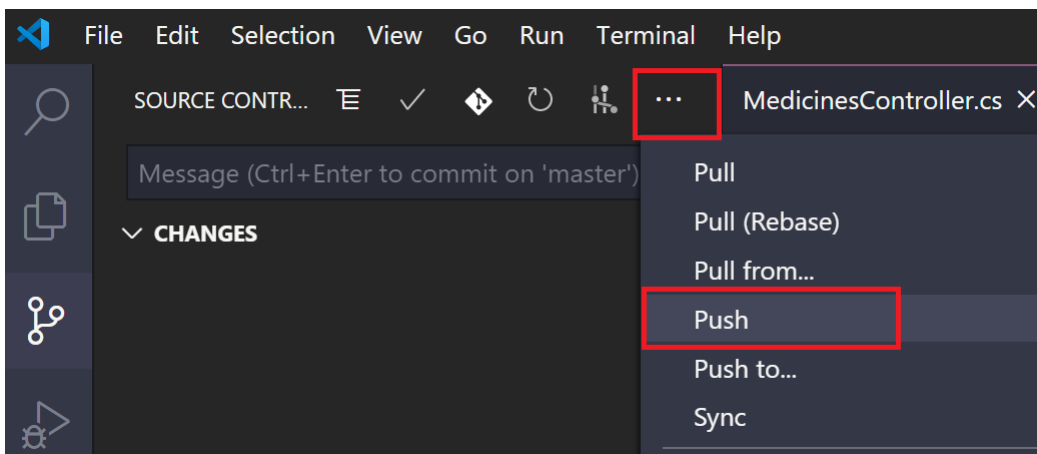
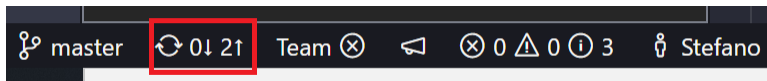
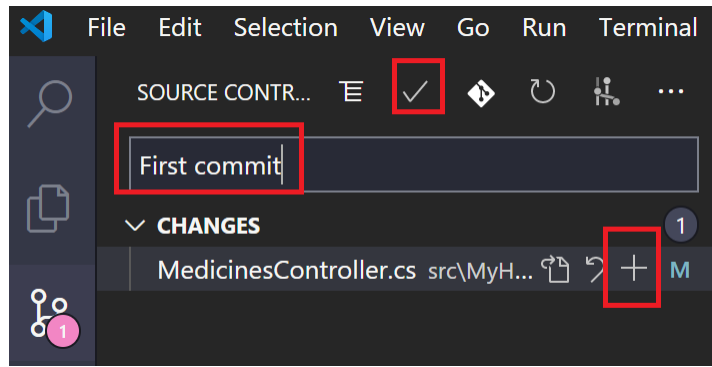
- .vscode
- ARM templates
- BuildScripts
- src
  - MyHealth.API
    - AppExtensions
    - bin
    - Controllers
      - ClinicAppointmentsController.cs
      - DoctorsController.cs
      - HomeAppointmentsController.cs
      - MedicinesController.cs M
      - PatientsController.cs
      - ReportsController.cs
      - TenantsController.cs
      - TipsController.cs
      - UsersController.cs
    - Infrastructure
      - Policies.cs
      - obj

MedicinesController.cs

```

1  using Microsoft.AspNetCore.Mvc;
2  using MyHealth.Data.Repositories;
3  using MyHealth.Model;
4  using System.Collections.Generic;
5  using System.Threading.Tasks;
6  using MyHealth.API.AppExtensions;
7  using System.Linq;
8
9  //Added comment here
10
11 namespace MyHealth.API.Controllers
12 {
13     [ResponseCache(Duration = 0, NoStore = true, VaryByHeader = "")]
14     [Route("api/[controller]")]
15     public class MedicinesController : Controller
16     {
17         5 references
18         private readonly MedicinesRepository _MedicinesRepository = null;
19
20         0 references
21         public MedicinesController(MedicinesRepository medicinesRepository)
22         {
23             _MedicinesRepository = medicinesRepository;
24         }
25     }

```



Azure DevOps demiliani / MyHealthClinic / Repos / Commits / MyHealthClinic

MyHealthClinic +

- Overview
- Boards
- Repos
- Files
- Commits**
- Pushes
- Branches
- Tags
- Pull requests
- Pipelines
- Test Plans

master

### Commits

Graph Commit

- First commit**  
27439428 Stefano Demiliani Today at 17:39
- first clone**  
1f9c10e1 Stefano Demiliani Today at 17:30
- adding content**  
ee1dd176 Akshay H 9 gen at 12:31
- Updated package.json**  
ab5b6544 Akshay H 9 gen at 11:36
- Updated azuredeploy.json**  
7c929dc4 Akshay H 9 gen at 11:35
- Updated package.json**  
5a15d268 Nagaraj B 13 ago 2018 at 07:04
- Updated Readme.md**  
3b2c7a27 Nagaraj B 3 mag 2018 at 16:10

Azure DevOps / Repos / Branches / MyHealthClinic

MyHealthClinic +

- Overview
- Boards
- Repos
- Files
- Commits
- Branches**
- Tags

Branches

Mine All Stale

Search branch name

Branch	Commit	Author	Authored ...	Behind   Ahead	Status	Pull Requ...
AddingContactUs	924ac579	Chri...	4 mag 2...	12   2		18
CopyrightUpdate	b6f5e2b5	Chri...	4 mag 2...	12   1		19
master <small>Default</small>	27439428	Stef...	26m ago			★

New branch

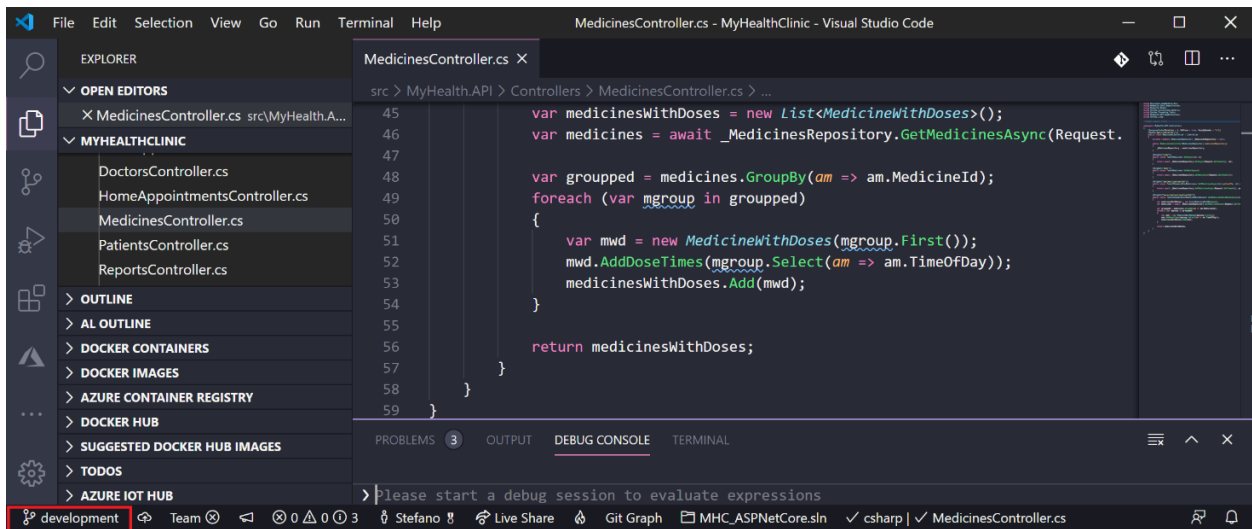
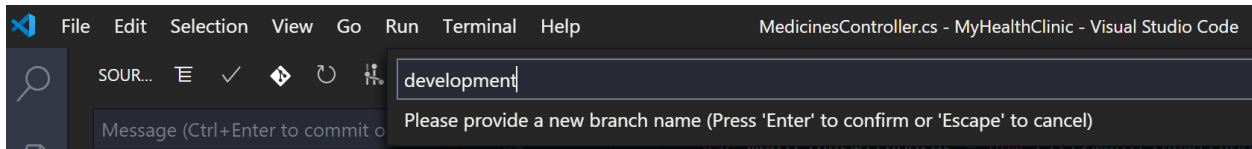
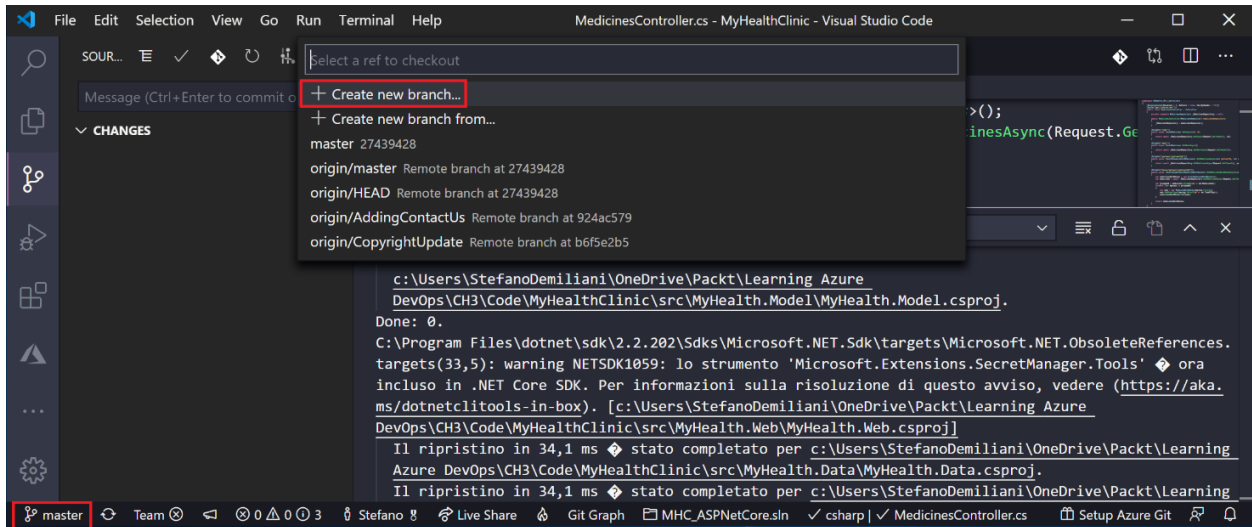
## Create a branch

Name \*

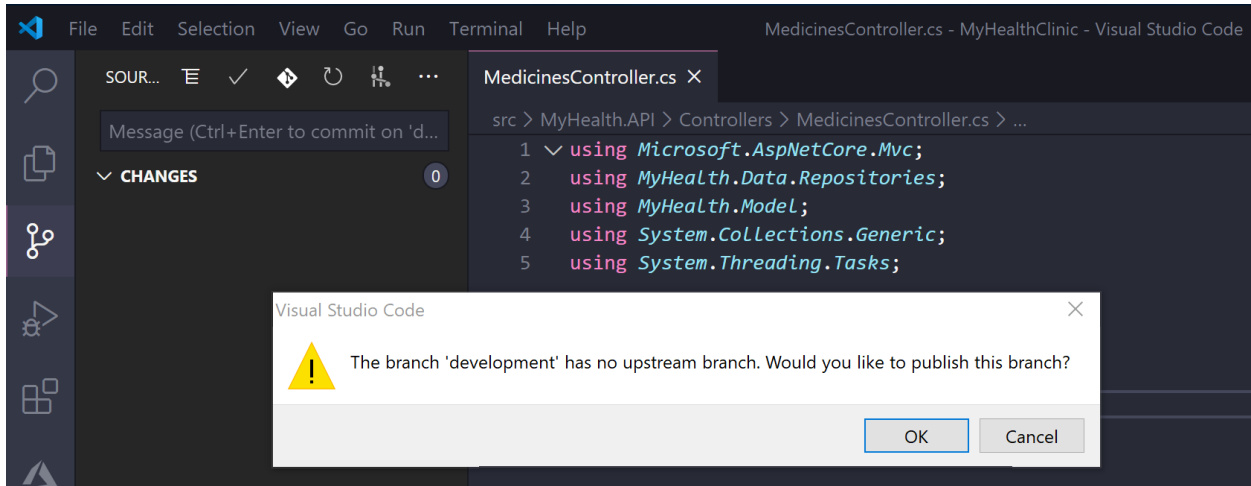
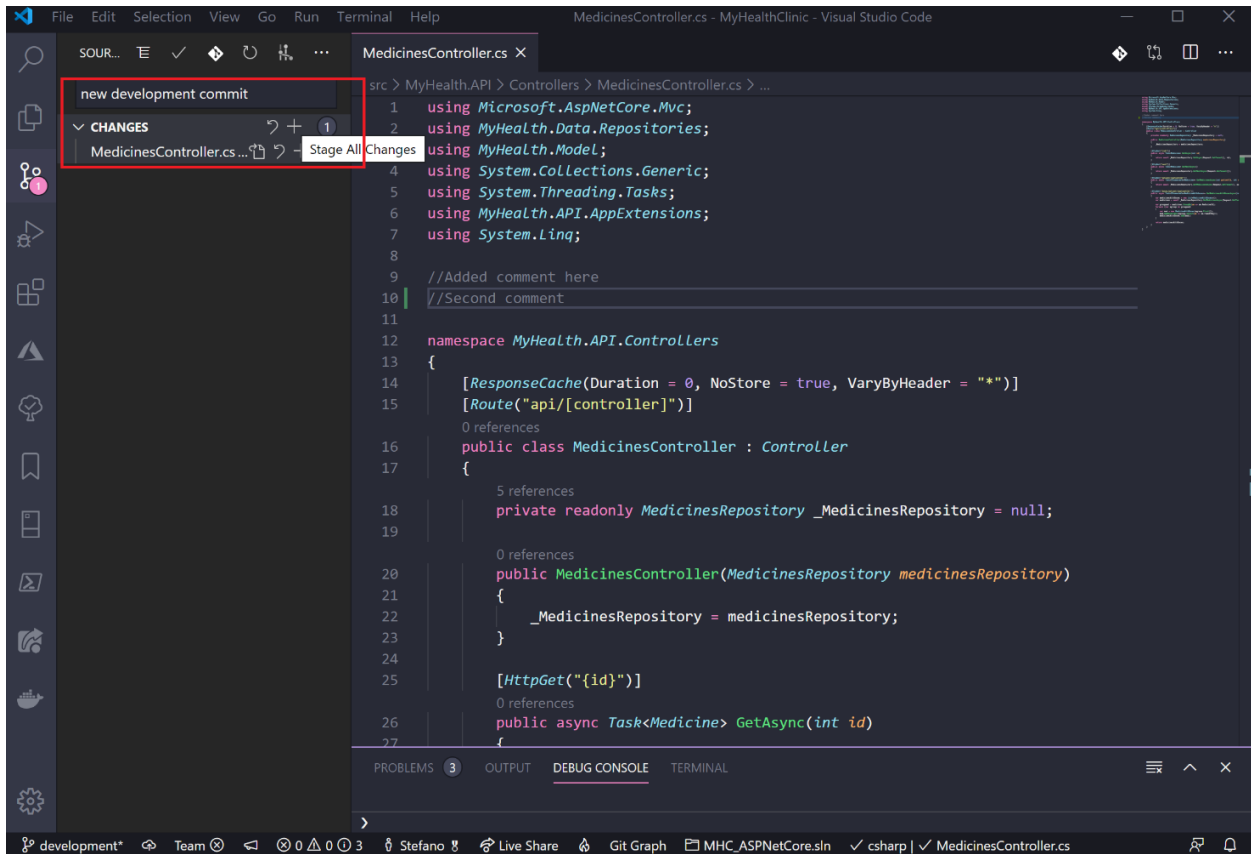
Based on

Cancel

Create







**MyHealthClinic** +

Overview  
Boards  
Repos  
Files  
Commits  
Pushes  
**Branches**  
Tags  
Pull requests

### Branches

Mine All Stale New branch

Search branch name

You updated development 42m ago Create a pull request

Branch	Commit	Author	Authored ...	Behind   Ahead	Status	Pull Requ...
AddingContactUs	924ac579	Chri...	4 mag 2...	12   2		18
CopyrightUpdate	b6f5e2b5	Chri...	4 mag 2...	12   1		19
<b>development</b>	<b>69be6c36</b>	Stef...	45m ago	0   1		
master	27439428	Stef...	Yesterday		Default	★

Azure DevOps demiliani / MyHealthClinic / Repos / Commits / MyHealthClinic

Search

**MyHealthClinic** +

Overview  
Boards  
Repos  
Files  
**Commits**  
Pushes  
Branches  
Tags  
Pull requests

69be6c36 **new development commit**

Stefano Demiliani 4/2/2020 7:15 AM development

Browse files Search in branches

Diff to Parent 1 - 27439428

Find a file or folder

/src/MyHealth.API/Controllers  
MedicinesController.cs

Showing 1 file change: 1 edit

Side-by-side diff

```

C# MedicinesController.cs +1
/src/MyHealth.API/Controllers/MedicinesController.cs
...
7 using System.Linq;
8
9 //Added comment here
10 + //Second comment
11
12 namespace MyHealth.API.Controllers
13 {
...
  
```

File Edit Selection View Go Run Terminal Help

SOUR... [Icons]

Message (Ctrl+Enter to commit)

>team.view

- Team: View History**
- Team: View Blame
- Team: View Build Summary
- Team: View Pull Requests
- Team: View Website
- Team: View Work Item Queries
- Team: View Work Items

CHANGES

# Branches

New branch

Mine All Stale

Search branch name

You updated development 1h ago Create a pull request

Branch	Commit	Author	Authored Date	Behind   Ahead	Status	Pull Request
AddingContactUs	924ac579	Christina K...	4 mag 2017	12   2		18
CopyrightUpdate	b6f5e2b5	Christina K...	4 mag 2017	12   1		19
development	69be6c36	Stefano De...	1h ago	0   1		
<b>master</b> <span>Default</span> <span>Compare</span>	27439428	Stefano De...	Yesterday			

- + New branch
- New pull request
- Delete branch

---

- View files
- View history
- Compare branches
- Set as compare branch

---

- Lock**
- Branch policies
- Branch security

/ Repos / Branches / MyHealthClinic

Search



# Branches

Mine All Stale

You updated development 1h ago

Branch	Commit	Author	Authored ...	Behind   Ahead
AddingContactUs	924ac579	Chri...	4 mag 2...	12   2
CopyrightUpdate	b6f5e2b5	Chri...	4 mag 2...	12   1
development	69be6c36	Stef...	2h ago	0   1
<b>master</b> <span>Default</span>	27439428	Stef...	Yesterday	

- + New branch
- New pull request
- Delete branch

---

- View files
- View history
- Compare branches
- Set as compare branch

---

- Lock
- Branch policies**
- Branch security

**Require a minimum number of reviewers**

Require approval from a specified number of reviewers on pull requests.

Minimum number of reviewers

- Allow requestors to approve their own changes
- Allow completion even if some reviewers vote to wait or reject
- Reset code reviewer votes when there are new changes

**Check for linked work items**

Encourage traceability by checking for linked work items on pull requests.

Policy requirement

- Required  
Block pull requests from being completed unless they have at least one linked work item.
- Optional  
Warn if there are no linked work items, but allow pull requests to be completed.

**Check for comment resolution**

Check to see that all comments have been resolved on pull requests.

Policy requirement

- Required  
Block pull requests from being completed while any comments are active.
- Optional  
Warn if any comments are active, but allow pull requests to be completed.

**Limit merge types**

Control branch history by limiting the available types of merge when pull requests are completed.

Allowed merge types:

- Basic merge (no fast-forward)**  
Preserves nonlinear history exactly as it happened during development.
- Squash merge**  
Creates a linear history by condensing the source branch commits into a single new commit on the target branch.
- Rebase and fast-forward**  
Creates a linear history by replaying the source branch commits onto the target without a merge commit.
- Rebase with merge commit**  
Creates a semi-linear history by replaying the source branch commits onto the target and then creating a merge commit.

Azure DevOps MyHealthClinic

### Branch policies for master

Save changes Discard changes

#### Protect this branch

- Setting a Required policy will enforce the use of pull requests when
- Setting a Required policy will prevent branch deletion
- Manage permissions for this branch on the [Security page](#)

- Require a minimum number of reviewers**  
Require approval from a specified number of reviewers on pull requests.
- Check for linked work items**  
Encourage traceability by checking for linked work items on pull requests.
- Check for comment resolution**  
Check to see that all comments have been resolved on pull requests.
- Limit merge types**  
Control branch history by limiting the available types of merge when

#### Build validation

Validate code by pre-merging and building pull request changes

**+ Add build policy**

#### Require approval from additional services

Require other services to post successful status to complete pull requests. [Learn more](#)

### Add build policy

Build pipeline \*

Path filter (optional) ⓘ

Trigger

- Automatic (whenever the source branch is updated)
- Manual

Policy requirement

- Required  
Build must succeed in order to complete pull requests.
- Optional  
Build failure will not block completion of pull requests.

Build expiration

- Immediately when master is updated
- After  hours if master has been updated
- Never

Save Cancel

Azure DevOps MyHealthClinic

### Branch policies for master

Save changes Discard changes

- Check for comment resolution**  
Check to see that all comments have been resolved on pull requests.
- Limit merge types**  
Control branch history by limiting the available types of merge when

#### Build validation

Validate code by pre-merging and building pull request changes

**+ Add build policy**

#### Require approval from additional services

Require other services to post successful status to complete pull requests.

**+ Add status policy**

#### Automatically include code reviewers

Include specific users or groups in the code review based on which files

**+ Add automatic reviewers**

### Add status policy

Status policies are passing when a "succeeded" status is posted to the pull request.

Status to check ⓘ \*

Policy requirement

- Required  
A status of "succeeded" is needed to complete pull requests.
- Optional  
A status of "failed" will not block completion of pull requests.

Advanced

Authorized organization

- Any identity can post this status
- Only the following identity can post this status

Reset conditions ⓘ

- Reset status whenever there are new changes

Save Cancel

Azure DevOps MyHealthClinic

### Branch policies for master

Save changes Discard changes

- Check for comment resolution  
Check to see that all comments have been resolved on pull requests.
- Limit merge types  
Control branch history by limiting the available types of merge when

#### Build validation

Validate code by pre-merging and building pull request changes

+ Add build policy

#### Require approval from additional services

Require other services to post successful status to complete pull requests.

+ Add status policy

#### Automatically include code reviewers

Include specific users or groups in the code review based on which files

+ Add automatic reviewers

### Automatically include reviewers

Include the following reviewer(s) \*

Policy requirement

Optional  
 Required

For pull requests affecting these folders ⓘ

Leave blank to include the specified reviewers on all new pull requests

Completion options

Allow requestors to approve their own changes

Activity feed message

Message will appear in the activity feed of pull requests with automatically added reviewers

Save Cancel

- Overview
- Teams
- Permissions
- Notifications
- Service hooks
- Dashboards
- Boards**
- Project configuration
- Team configuration
- GitHub connections
- Repos**
- Repositories
- Cross-repo policies**
- Pipelines

# Add branch protection



Branches to protect

- Protect the default branch of each repository
- Protect current and future branches matching a specified pattern

Example patterns: "master", "releases/\*", "\*\*"

Matches 1 branch in 1 repo

master

D365BCHelloWorldDevOps

**Azure DevOps** / Repos / Pull requests / MyHealthClinic

**MyHealthClinic**

- Overview
- Boards
- Repos
- Files
- Commits
- Pushes
- Branches
- Tags
- Pull requests**
- Pipelines
- Test Plans
- Project settings

### Pull requests

**Mine** Active Completed Abandoned

You updated development 7h ago [Create a pull request](#)

Created by me (2)

- Copyright Information is updated to latest**  
Stefano Demiliani request #19 into master 1 Updated Yesterday
- Added Contact Us Tab to homepage**  
Stefano Demiliani request #18 into master 1 Updated Yesterday

Assigned to me (2)

- Copyright Information is updated to latest**  
Stefano Demiliani request #19 into master 1 Updated Yesterday
- Added Contact Us Tab to homepage**  
Stefano Demiliani request #18 into master 1 Updated Yesterday

Azure DevOps

D365BCHelloWorldDevOps

Search

D365BCHelloWorldDe... +

Overview

Boards

Repos

Files

Commits

Pushes

Branches

Tags

**Pull requests**


Pipelines

Test Plans

### Pull requests

Mine Active Completed Abandoned

**New pull request**



**Currently, no pull requests need your attention**

Pull requests allow you to review code and help ensure quality before merge. [Learn more](#)

**New pull request**

NEW TASK \*

## Implementing the Patient Check routine

Stefano Demiliani 0 comments Add tag Save & Close

State: To Do Area: MyHealthClinic Reason: New task Iteration: MyHealthClinic

**Description**

**Details**

Priority: 2 Remaining Work Activity Blocked

**Deployment**

To track releases associated with this work item, go to [Releases](#) and turn on deployment status reporting for Boards in your pipeline's Options menu. [Learn more](#)

**Development**

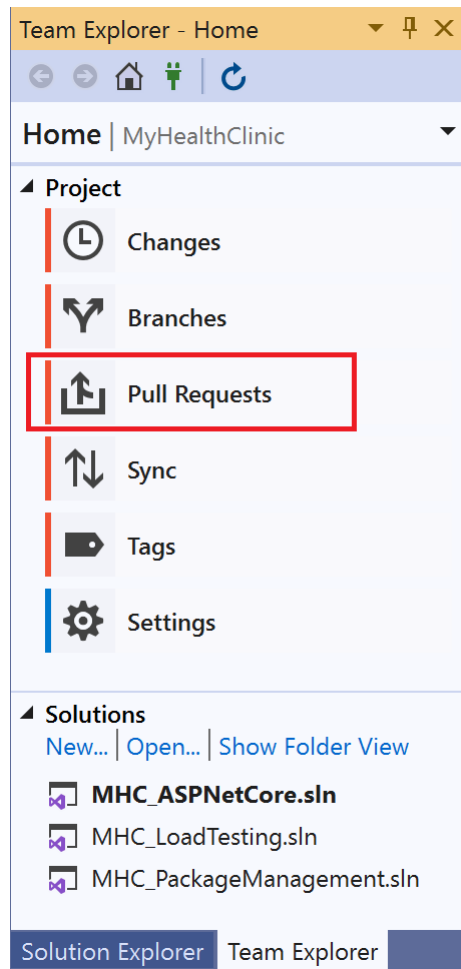
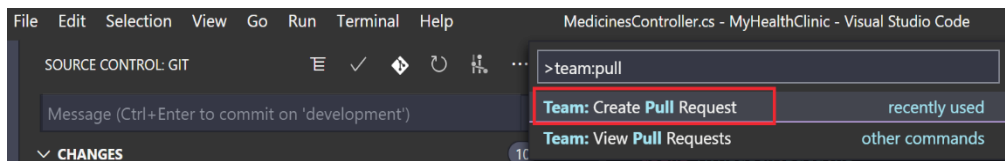
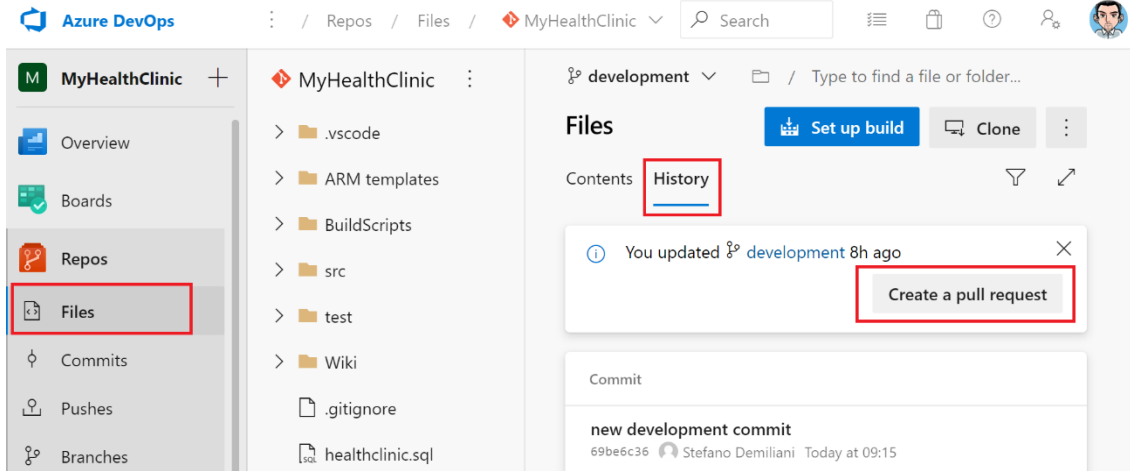
+ Add link development Latest commit 8 hours ago **Create a pull request**

**Related Work**

**Discussion**

Add a comment. Use # to link a work item, ! to link a pull request, or @ to mention a person.





## New Pull Request

development into master

Title \*

New features deployed on the development branch

Add label

Description

New features deployed on the development branch

Markdown supported.

Rich text editor toolbar with icons for bold, italic, link, code, list, and other formatting options.

New features deployed on the development branch

Reviewers

Search users and groups to add as reviewers

Work Items

Search work items by ID or title

151 Implementing the Patient Check routine

Create

Files (1) Commits (1)

Files (1) Commits (1)

Showing 1 file change: 1 edit

Side-by-side diff

```
C# MedicinesController.cs +1
/src/MyHealth.API/Controllers/MedicinesController.cs
...
7 using System.Linq;
8
9 //Added comment here
10 //Second comment
11
12 namespace MyHealth.API.Controllers
13 {
...

```

demiliani / MyHealthClinic / Repos / Pull requests / MyHealthClinic

Search

## 20 ACTIVE New features deployed on the development branch

Stefano Demiliani development into master

Approve

Complete

- Complete
- Mark as draft
- Abandon

Overview Files Updates Commits

### Description

New features deployed on the development branch

Show everything

Add a comment...

Created by Stefano Demiliani

just now

Work Item

151

Reviewers

No reviewers

Labels

Add label

## Complete pull request ✕

Merge commit comment

Merged PR 20: New features deployed on the development branch

New features deployed on the development branch

Related work items: #151

Merge type

Merge (no fast-forward) ▾



Post-completion options

- Complete associated work items after merging ℹ
- Delete development after merging

Complete merge

Cancel

## 20 ACTIVE New features deployed on the development branch

Stefano Demiliani development into master

[Overview](#) [Files](#) [Updates](#) [Commits](#)

Completing the pull request...

▶ Merge in progress.

### Description

New features deployed on the development branch ^

## 20 COMPLETED New features deployed on the development branch

Stefano Demiliani development into master

[Overview](#) [Files](#) [Updates](#) [Commits](#)

Stefano Demiliani completed the pull request on 4/7/2020 3:01 PM (18 minutes ago).








Cherry-pick

Revert

361d87d3 Merged PR 20: New features deployed on the development branch...

### Description

New features deployed on the development branch ^

-  Repos
-  Files
-  Commits
-  Pushes
-  Branches
-  Tags
-  Pull requests

### Create a tag



Name \*

Based on

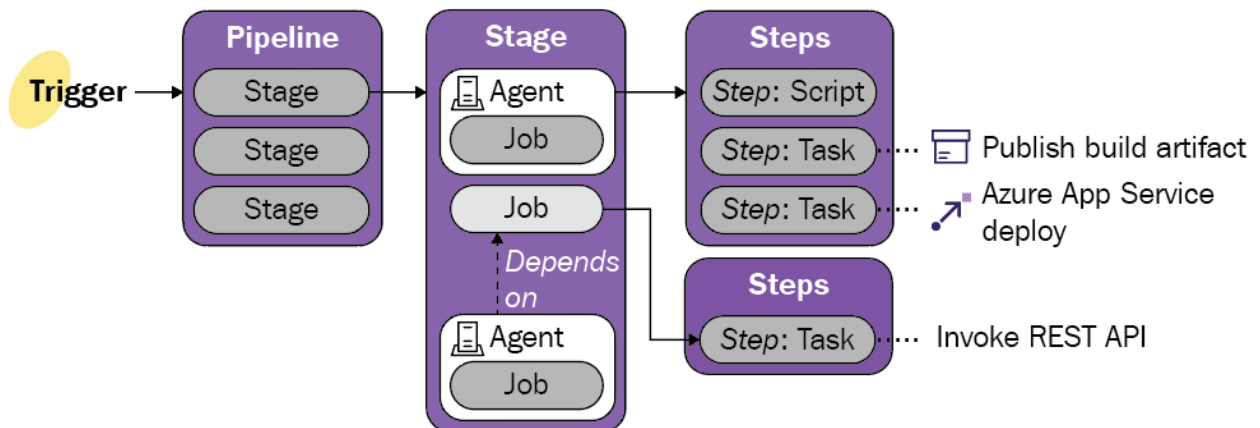
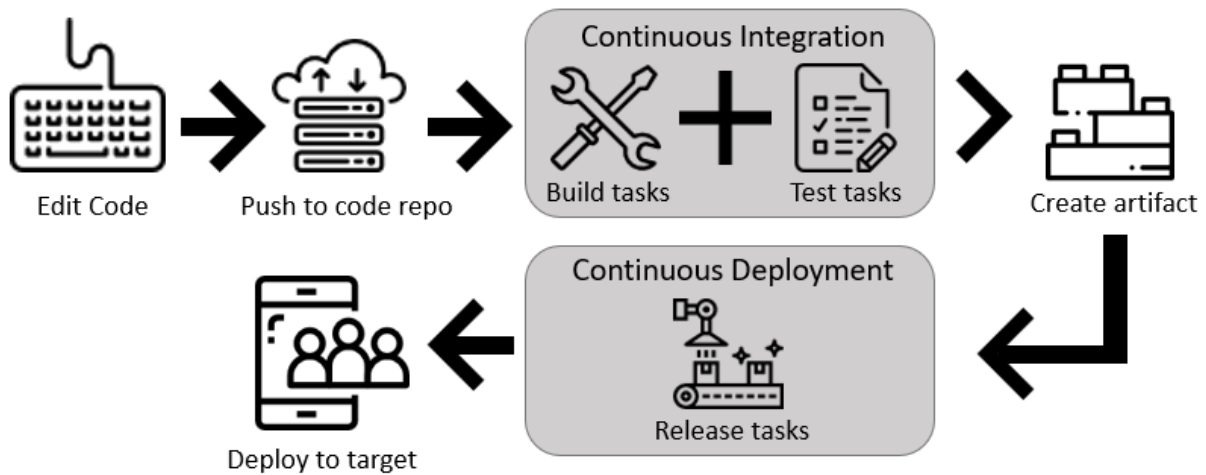
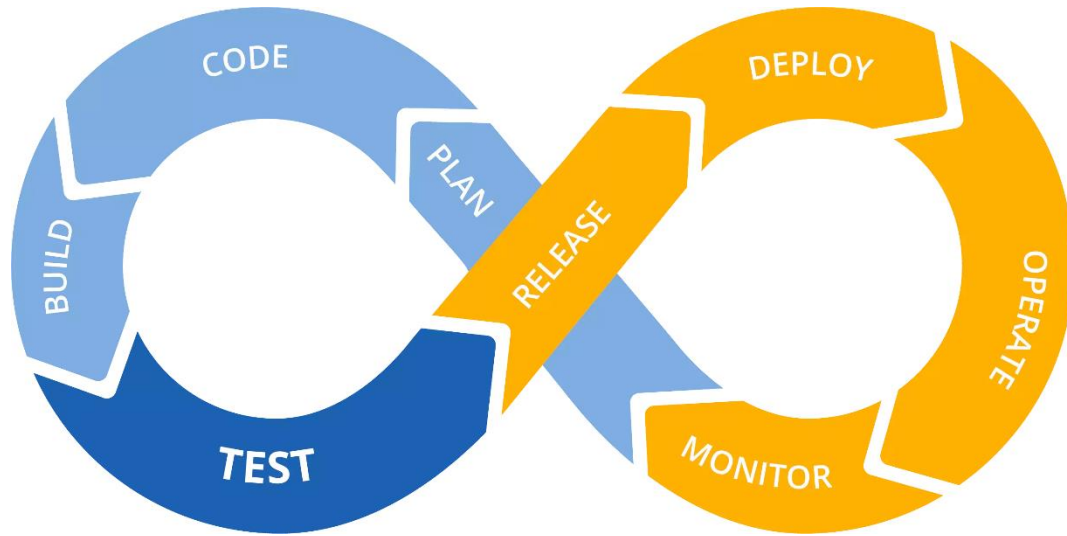
Description \*

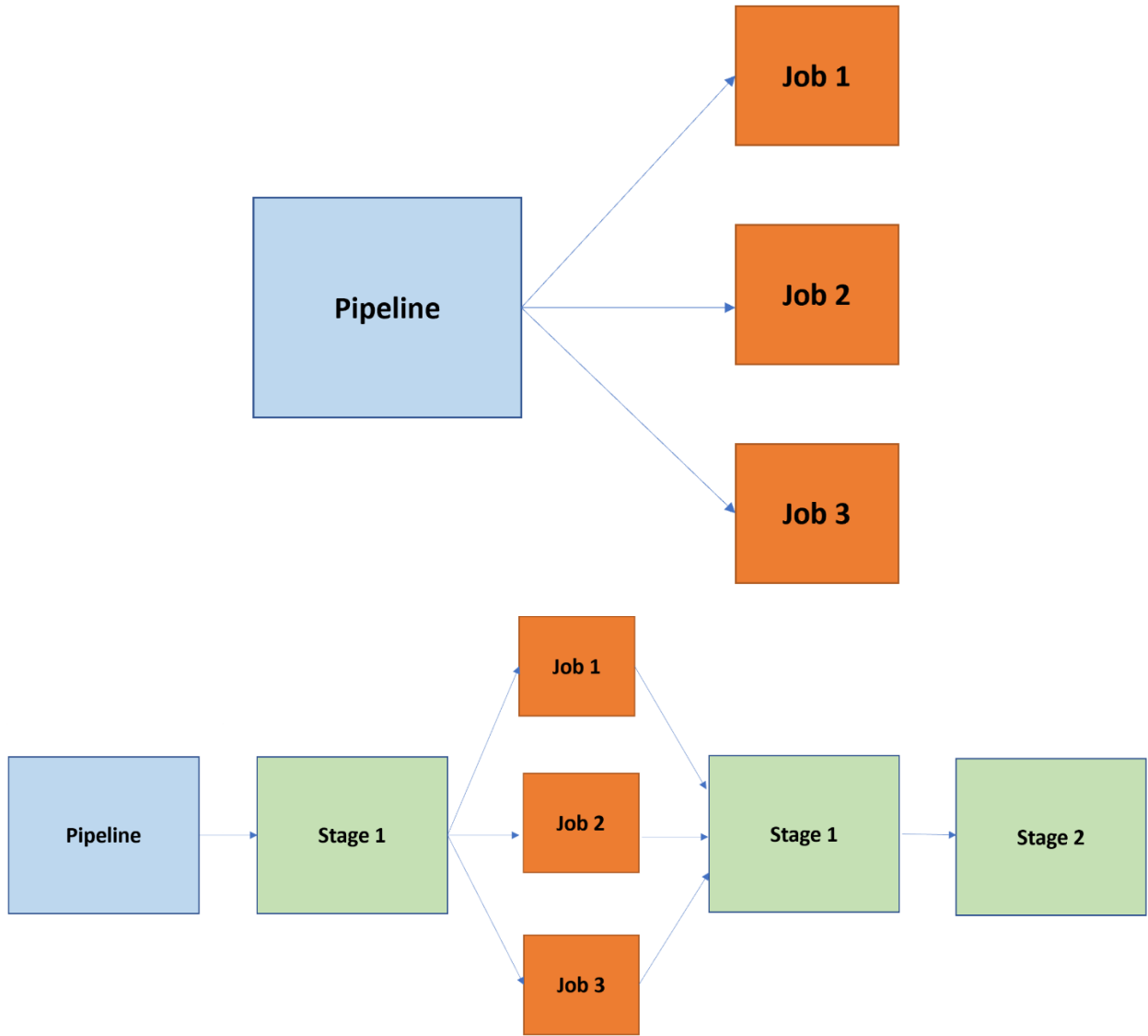
Cancel

Create


Tags					New tag	Search tag name
Tag		Commit	Tagger	Creation Date		
 v2.0.0.0	Version 2.0.0.0	361d87d3	 Stefano Demiliani	2m ago		

# Chapter 4: Understanding Azure DevOps Pipelines





### Agent pools

Name	Queued jobs	Running jobs
 <b>Azure Pipelines</b> Azure Pipelines		

- 📄 Preview features

---

- 👤 Profile
- 🌐 Time and Locale

---

- 💬 Notifications
- 😊 Theme
- 📊 Usage

---

- 👤 Personal access tokens**
- 🔑 SSH public keys
- 🔄 Alternate credentials

### Create a new personal access token ✕

Name

Organization

Expiration (UTC)

Scopes  
Authorize the scope of access associated with this token  
Scopes  Full access  Custom defined

**Agent Pools**  
Manage agent pools and agents  
 Read  Read & manage

**Analytics**  
Read data from the analytics service  
 Read

**Auditing**  
Read audit log events, manage and delete streams.  
 Read Audit Log

**Build**

[Show less scopes](#)

Azure DevOps demiliani / Settings / Agent pools / Default

Organization Settings demiliani

Search Settings

General

- Overview
- Projects
- Users
- Billing
- Auditing
- Global notifications
- Usage
- Extensions
- Azure Active Directory

Security

- Policies
- Permissions

Boards

- Process

Pipelines

- Agent pools
- Settings

Default

Jobs Agents Details Security Settings Maintenance History

Update all agents New agent

Name	Last run	Current status	Agent version	Enabled
------	----------	----------------	---------------	---------

Get the agent

Windows macOS Linux

x64  
x86

System prerequisites

Configure your account

Configure your account by following the steps outlined [here](#).

Download the agent

Download

Create the agent

```
PS C:\> mkdir agent ; cd agent
PS C:\agent> Add-Type -AssemblyName System.IO.Compression.FileSystem ;
[System.IO.Compression.ZipFile]::ExtractToDirectory("$HOME\Downloads\vsts-agent-win-x64-2.166.4.zip", "$PWD")
```

Configure the agent [Detailed instructions](#)

```
PS C:\agent> .\config.cmd
```

Optionally run the agent interactively

If you didn't run as a service above:

```
PS C:\agent> .\run.cmd
```

That's it!

[More Information](#)



» StefanoDemiliani » Download » vsts-agent-win-x64-2.166.4.zip

Nome	Tipo
bin	Cartella di file
externals	Cartella di file
config.cmd	Script di comandi Windows
run.cmd	Script di comandi Windows

```
Enter authentication type (press enter for PAT) >
Enter personal access token > *****
Connecting to server ...

>> Register Agent:
```

Default Update all agents New agent


Jobs Agents Details Security Settings Maintenance History

Name	Last run	Current status	Agent version	Enabled
vm365bcblldagent <span>Offline</span>	Yesterday	Idle	2.165.0	<input checked="" type="checkbox"/> On

← vm365bcblldagent

Jobs Capabilities

User-defined capabilities +



No user-defined capabilities  
[Add a new capability](#)

System capabilities Search by keyword

Name	Value
Agent.Name	vm365bcblldagent
Agent.Version	2.165.0
Agent.ComputerName	vm365bcblldagent
Agent.HomeDirectory	C:\Agent
Agent.OS	Windows_NT
Agent.OSArchitecture	X64
Agent.OSVersion	10.0.17763
ALLUSERSPROFILE	C:\ProgramData

**PartsUnlimited**

Overview

Summary

Dashboards

Wiki

Boards

Repos

Pipelines

Test Plans

Artifacts

### About this project

Generated by Azure DevOps Demo Generator

Languages

JavaScript CSS


Pipelines

- Pipelines
- Environments
- Releases
- Library
- Task groups
- Deployment groups


Connect      Select      Configure      Review


New pipeline


## Where is your code?


 **Azure Repos Git** YAML  
Free private Git repositories, pull requests, and code search

 **Bitbucket Cloud** YAML  
Hosted by Atlassian

 **GitHub** YAML  
Home to the world's largest community of developers








 **GitHub Enterprise Server** YAML  
The self-hosted version of GitHub Enterprise

 **Other Git**  
Any generic Git repository

 **Subversion**  
Centralized version control by Apache

[Use the classic editor](#) to create a pipeline without YAML.

## Select a source

 Azure Repos Git	 TFVC	 GitHub	 GitHub Enterprise Server	 Subversion
 Bitbucket Cloud	 Other Git			

## Team project

 PartsUnlimited ▼

## Repository

 PartsUnlimited ▼

## Default branch for manual and scheduled builds

 master ▼

Continue

## Select a template

Or start with an [Empty job](#)

### Configuration as code

---



#### YAML

Looking for a better experience to configure your pipelines using YAML files? Try the new YAML pipeline creation experience. [Learn more](#)

### Featured

---



#### .NET Desktop

Build and test a .NET or Windows classic desktop solution.



#### Android

Build, test, sign, and align an Android APK.



#### ASP.NET

Build and test an ASP.NET web application.



#### Azure Web App for ASP.NET

Build, package, test, and deploy an ASP.NET Azure Web App.



#### Docker container

Build a Docker image and push it to a container registry.



#### Maven

Build and test a Java project with Apache Maven.



#### Python package

Create and test a Python package on multiple Python versions.

PartsUnlimited-demo-pipeline

Tasks Variables Triggers Options Retention History | Save & queue

**Pipeline**  
Build pipeline

**Get sources**  
PartsUnlimited master

**Agent job 1**  
Run on agent

- Use NuGet 4.4.1**  
NuGet tool installer
- NuGet restore**  
NuGet
- Build solution**  
Visual Studio build
- Test Assemblies**  
Visual Studio Test
- Publish symbols path**  
Index sources and publish symbols
- Publish Artifact**  
Publish build artifacts

PartsUnlimited-demo-pipeline

Tasks Variables Triggers Options Retention History | Save & queue Discard Summary Queue

**Pipeline**  
Build pipeline

**Get sources**  
PartsUnlimited master

**Agent job 1**  
Run on agent

- Use NuGet 4.4.1**  
NuGet tool installer
- NuGet restore**  
NuGet
- Build solution**  
Visual Studio build
- Test Assemblies**  
Visual Studio Test
- Publish symbols path**  
Index sources and publish symbols
- Publish Artifact**  
Publish build artifacts

**Name \***  
PartsUnlimited-demo-pipeline

**Agent pool \*** | Pool information | Manage  
Azure Pipelines

**Agent Specification \***  
vs2017-win2016

**Parameters** | Unlink all

**Path to solution or packages.config \***  
\*\*\\*.sln

**Artifact Name \***  
drop

**Pipeline**  
Build pipeline

**Get sources**  
PartsUnlimited master

**Agent job 1**  
Run on agent

- Use NuGet 4.4.1**  
NuGet tool installer
- NuGet restore**  
NuGet
- Build solution**  
Visual Studio build
- Test Assemblies**  
Visual Studio Test
- Publish symbols path**  
Index sources and publish symbols
- Publish Artifact**  
Publish build artifacts

Task version 2.\*

Display name \*  
NuGet restore

Command \*  
restore

Path to solution, packages.config, or project.json \*  
\*\*\\*.sln

Feeds and authentication ^

Feeds to use \*  
 Feed(s) I select here  Feeds in my NuGet.config

Use packages from this Azure Artifacts/TFS feed

Use packages from NuGet.org

Advanced ^

Control Options ^

Output Variables ^

PartsUnlimited-demo-pipeline

Tasks Variables Triggers Options Retention History Save & queue Discard Summary Queue

**Pipeline**  
Build pipeline

**Get sources**  
PartsUnlimited master

**Agent job 1**  
Run on agent

- Use NuGet 4.4.1  
NuGet tool installer
- NuGet restore  
NuGet
- Build solution**  
Visual Studio build
- Test Assemblies  
Visual Studio Test
- Publish symbols path  
Index sources and publish symbols
- Publish Artifact  
Publish build artifacts

Task version: 1.\*

Display name: Build solution

Solution: \*\*\\*.sln

Visual Studio Version: Latest

MSBuild Arguments: /p:DeployOnBuild=true /p:WebPublishMethod=Package /p:PackageAsSingleFile=true /p:SkiplInvalidConfigurations=true /p:PackageLocation="\$(build.artifactstagingdirectory)\\"

Platform: \$(BuildPlatform)

Configuration: \$(BuildConfiguration)

Clean

Advanced

Control Options

PartsUnlimited-demo-pipeline

Tasks Variables Triggers Options Retention History Save & queue Discard Summary Queue

**Pipeline**  
Build pipeline

**Get sources**  
PartsUnlimited master

**Agent job 1**  
Run on agent

- Use NuGet 4.4.1  
NuGet tool installer
- NuGet restore  
NuGet
- Build solution  
Visual Studio build
- Test Assemblies  
Visual Studio Test
- Publish symbols path  
Index sources and publish symbols
- Publish Artifact**  
Publish build artifacts

Task version: 1.\*

Display name: Publish Artifact

Path to publish: \$(build.artifactstagingdirectory)

Artifact name: drop

Artifact publish location: Azure Pipelines

Advanced

Control Options

Output Variables

PartsUnlimited-demo-pipeline

Tasks **Variables** Triggers Options Retention History | Save & queue Discard Summary Queue ...

Pipeline variables

Name ↑	Value
BuildConfiguration	release
BuildPlatform	any cpu
system.collectionId	6baa1639-4743-4a78-b433-25f77f2805fe
system.debug	false
system.definitionId	< No pipeline ID yet >
system.teamProject	PartsUnlimited

[+ Add](#)

PartsUnlimited-demo-pipeline

Tasks Variables **Triggers** Options Retention History | Save & queue Discard Summary Queue ...

Continuous integration

- PartsUnlimited** Enabled
- Scheduled [+ Add](#)  
No builds scheduled
- Build completion [+ Add](#)  
Build when another build completes

**PartsUnlimited**

- Enable continuous integration**
- Batch changes while a build is in progress

Branch filters

Type:  Branch specification:

[+ Add](#)

Path filters [+ Add](#)



### Build properties

Define general build pipeline settings

#### Description

#### Build number format

#### The new build request is processing

- Enabled - queue and start builds when eligible agent(s) available
- Paused - queue new builds but do not start
- Disabled - do not queue new builds

#### Automatically link new work in this build

When a build completes successfully, create links to all work items linked to associated changes.

Enabled

#### Only link to work added to specific branches

##### Type

##### Branch specification

+ Add

#### Create work item on failure

Create a work item for each failed build

Disabled

#### Status badge

### Build job

Define build job authorization and timeout settings

#### Build job authorization scope

#### Build job timeout in minutes

#### Build job cancel timeout in minutes

### Demands

Specify which capabilities the agent must have to run this pipeline.

Name	Condition	Value
------	-----------	-------

+ Add

### Run pipeline ✕

Select parameters below and manually run the pipeline

Save comment

Pipeline definition

Agent pool

Azure Pipelines ▼

Agent Specification \*

vs2017-win2016 ▼

Branch/tag

🔗 master ▼

Select the branch, commit, or tag

#### Advanced options

Variables

3 variables defined >

Demands

This pipeline has no defined demands >

Enable system diagnostics

Cancel

Save and run

## ← Jobs in run #20190722.1

Parts Unlimited-ASP.NET-CI

🕒 Agent job 1 1m 33s

## 🕒 Agent job 1

🕒 Build solution

on.xml".

876 Copying file from "D:\a\1\s\P

877 Creating "D:\a\1\s\PartsUnlim

878 \_CopyOutOfDateSourceItemsToOutp

879 Copying file from "D:\a\1\s\P

✓ #20190722.1 Updated FullEnvironmentSetupMerged.param.json

on Parts Unlimited-ASP.NET-CI

Summary Tests

Manually run by

◆ PartsUnlimited master 58d9b87

📅 Today at 1:46 PM

Duration:

🕒 2m 6s

Tests:

📊 100% passed

Summary **Tests**

∨ Summary

1 Run(s) Completed ( 1 Passed, 0 Failed )

16

Total tests

+16



14 ● Passed

0 ● Failed

2 ● Others

87.5%

Pass percentage

↑ 87.5%

5s 804ms

Run duration ⓘ

↑ +5s 804ms

📄 Bug ∨ 🔗 Link

🔍 Filter by test or run name

Connect

Select

Configure

Review

New pipeline

## Where is your code?



Azure Repos Git YAML

Free private Git repositories, pull requests, and code search



Bitbucket Cloud YAML

Hosted by Atlassian



GitHub YAML

Home to the world's largest community of developers



GitHub Enterprise Server YAML

The self-hosted version of GitHub Enterprise



Other Git

Any generic Git repository



Subversion

Centralized version control by Apache

Use the [classic editor](#) to create a pipeline without YAML.

✓ Connect

Select

Configure

Review

New pipeline

## Select a repository

Filter by keywords

PartsUnlimited ▼ ✕



PartsUnlimited

✓ Connect

✓ Select

**Configure**

Review

New pipeline

## Configure your pipeline



**ASP.NET**

Build and test ASP.NET projects.



**ASP.NET Core (.NET Framework)**

Build and test ASP.NET Core projects targeting the full .NET Framework.



**.NET Desktop**

Build and run tests for .NET Desktop or Windows classic desktop solutions.



**Universal Windows Platform**

Build a Universal Windows Platform project using Visual Studio.



**Xamarin.Android**

Build a Xamarin.Android project.



**Xamarin.iOS**

Build a Xamarin.iOS project.



**Starter pipeline**

Start with a minimal pipeline that you can customize to build and deploy your code.



**Existing Azure Pipelines YAML file**

Select an Azure Pipelines YAML file in any branch of the repository.

Show more

New pipeline

## Review your pipeline YAML

Variables

Save and run

PartsUnlimited / azure-pipelines.yml

Show assistant

```
1 # ASP.NET
2 # Build and test ASP.NET projects.
3 # Add steps that publish symbols, save build artifacts, deploy, and more:
4 # https://docs.microsoft.com/azure/devops/pipelines/apps/aspnet/build-aspnet-4
5
6 trigger:
7   - master
8
9 pool:
10  - vmImage: 'windows-latest'
11
12 variables:
13  - solution: '**/*.sln'
14  - buildPlatform: 'Any CPU'
15  - buildConfiguration: 'Release'
16
17 steps:
18   - task: NuGetToolInstaller@1
19
20   Settings
21   - task: NuGetCommand@2
22     inputs:
23     - restoreSolution: '$(solution)'
24
25   Settings
26   - task: VSBuild@1
27     inputs:
28     - solution: '$(solution)'
29     - msbuildArgs: '/p:DeployOnBuild=true /p:WebPublishMethod=Package /p:PackageAsSingleFile=true /p:SkipInvalidConfigurations=true /p:PackageLocation="$(build.artifactSt
30     - platform: '$(buildPlatform)'
31     - configuration: '$(buildConfiguration)'
32
33   Settings
34   - task: VSTest@2
```

← PartsUnlimited

Edit

Run pipeline



Runs Branches Analytics








Description	Stages	
<b>#20200302.1 Set up CI with Azure Pipelines</b> Individual CI master bec2cb5		3m ago 2m 21s

master ▾ PartsUnlimited / azure-pipelines.yml

```
29 | configuration: '$(buildConfiguration)'  
30 |  
31 | Settings  
32 | - task: VSTest@2  
33 |   inputs:  
34 |     platform: '$(buildPlatform)'  
35 |     configuration: '$(buildConfiguration)'  
36 |  
37 | Settings  
38 | - task: PublishSymbols@2  
39 |   displayName: 'Publish symbols path'  
40 |   inputs:  
41 |     SearchPattern: '**\bin\**\*.pdb'  
42 |     PublishSymbols: false  
43 |     continueOnError: true  
44 |  
45 | Settings  
46 | - task: PublishBuildArtifacts@1  
47 |   displayName: 'Publish Artifact'  
48 |   inputs:  
49 |     PathToPublish: '$(build.artifactstagingdirectory)'  
50 |     ArtifactName: '$(Parameters.ArtifactName)'  
51 |     condition: succeededOrFailed()
```

Tasks ☰

-  **Copy and Publish Build Artifacts**  
[DEPRECATED] Use the Copy Files task and the Pu...
-  **Index sources and publish symbols**  
Index your source code and publish symbols to a ...
-  **npm**  
Install and publish npm packages, or run an npm ...
-  **Publish build artifacts**  
Publish build artifacts to Azure Pipelines or a Win...
-  **Publish Pipeline Artifacts**  
Publish (upload) a file or directory as a named arti...

New Repos pull request experience: Try out the new modern, fast, and mobile-friendly pull request experience within Repos. [Learn more](#) Not now Try it!

- PartsUnlimited
- PartsUnlimited-aspnet45
- .gitattributes
- .gitignore
- azure-pipelines.yml

master ▾ / Type to find a file or folder...

Files failed Clone  
Contents History

Name ↑	Last change	Commits
PartsUnlimited-aspnet45	30 set 2019	8086ee35 Updated FullEnvironmentSetupMerged.json Akshay H
.gitattributes	18 nov 2015	45f7fff9 Add PartsUnlimited source Colin Dembovsky
.gitignore	18 nov 2015	45f7fff9 Add PartsUnlimited source Colin Dembovsky
azure-pipelines.yml	21m ago	0d50eeab0 Set up CI with Azure Pipelines Stefano Demiliani

**Project Settings**  
D365BCHelloWorldDevOps

**General**

- Overview
- Teams
- Permissions
- Notifications
- Service hooks
- Dashboards

**Boards**

- Project configuration
- Team configuration
- GitHub connections

**Repos**


- Repositories
- Cross-repo policies

**Pipelines**

- Agent pools
- Parallel jobs
- Settings**
- Test management
- Release retention
- Service connections\*

**Settings**

**Retention policy**

 The artifacts and attachments retention setting is being ignored because the runs retention setting is evaluated first.

Days to keep artifacts and attachments	<input type="text" value="30"/>
Days to keep runs	<input type="text" value="30"/>
Days to keep pull request runs	<input type="text" value="10"/>
Number of recent runs to retain per pipeline ⓘ	<input type="text" value="3"/>






[Learn more about run retention](#)

**General**

- Disable anonymous access to badges ⓘ
- Limit variables that can be set at queue time ⓘ
- Limit job authorization scope to current project ⓘ
- Publish metadata from pipelines (preview) ⓘ

## Tasks



- 
-  **Azure file copy**  
Copy files to Azure Blob Storage or virtual machin...
  -  **Copy and Publish Build Artifacts**  
[DEPRECATED] Use the Copy Files task and the Pu...
  -  **Copy files**  
Copy files from a source folder to a target folder ...
  -  **Copy files over SSH**  
Copy files or build artifacts to a remote machine ...
  -  **Windows machine file copy**  
Copy files to remote Windows machines



Azure DevOps interface showing the 'Environments' section in the left sidebar. The main content area displays a 'Create your first environment' banner with a 'Create environment' button. A 'New environment' dialog is open on the right, with the following fields:

- Name: nuget-org
- Description: Environment for publishing the NuGet package
- Resource:  None (You can add resources later),  Kubernetes (Add Kubernetes namespace),  Virtual machines (Manage virtual machines)

A 'Create' button is located at the bottom right of the dialog.

## New NuGet service connection

### Authentication method

- ApiKey
- External Azure DevOps Server
- Basic Authentication

### Feed URL

https://api.nuget.org/v3/index.json

URL for the feed. This will generally end with 'index.json'. For nuget.org, use https://api.nuget.org/v3/index.json

### Authentication

#### ApiKey

ApiKey (only for push).

### Details

#### Service connection name

NuGet

#### Description (optional)

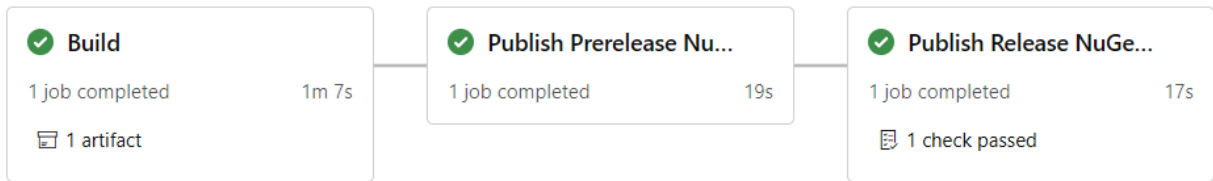
### Security

- Grant access permission to all pipelines

[Learn more](#)  
[Troubleshoot](#)

Back

Save



Application

# Azure Pipelines

[Set up a plan](#)

Verified by GitHub  
GitHub confirms that this app meets the requirements for verification.

Continuously build, test, and deploy to any platform and cloud

Azure Pipelines offers cloud-hosted pipelines for Linux, macOS, and Windows with 10 free parallel jobs and unlimited minutes for open source projects.



## Install Azure Pipelines

Install on your personal account Stefano Demiliani

All repositories  
This applies to all current and future repositories.


Only select repositories

...with these permissions:

- ✓ Write access to code
- ✓ Read access to metadata
- ✓ Read and write access to checks, commit statuses, deployments, issues, and pull requests

[Install](#) [Cancel](#)

Next: you'll be directed to the GitHub App's site to complete setup.

 Azure DevOps

demiliani@outlook.com [Switch directory](#)

## Setup your Azure Pipelines project

Select your Azure DevOps organization

demiliani

[Create a new organization](#)

Project name

GitHubProject


[Select an existing project](#)

Project visibility




Private

Choosing **Continue** means that you agree to our [Terms of Service](#), [Privacy Statement](#), and [Code of Conduct](#).

[Continue](#)



Azure Pipelines by **Microsoft** would like access to:

-  **Your account** (demiliani)  
Verify your GitHub account
-  **Resources**  
Determine what resources both you and Azure Pipelines can access
-  **Actions**  
Enable you to trigger actions on GitHub from within Azure Pipelines

---

Azure Pipelines has been installed on 1 account you have access to: demiliani.

[Learn more about Azure Pipelines](#)

[Authorize Azure Pipelines by Microsoft](#)

Authorizing will redirect to <https://app.vssps.visualstudio.com>

Azure DevOps demiliani / GitHubProject / Pipelines

Connect Select Configure Review

New pipeline

### Select a repository

Filter by keywords

- demiliani/SDVisualStudioCodeExtensionPack 8 mag
- demiliani/global-azure-2020 25 apr
- demiliani/afzipdeployment 26 mar
- demiliani/d365bcmsworkshop 20 feb
- demiliani/d365bcdevopsevent 13 feb
- demiliani/TailwindTraders-Website fork 22 gen
- demiliani/NAV-AzureCloudService 13 nov 2019
- demiliani/AzureSqlBackupPowershell 20 set 2019
- demiliani/AzureFunctionLoadCSVtoAzureSQLNAV 30 mag 2019
- demiliani/Powershell-Move-local-SQL-db-to-Azure-SQL 7 feb 2019

Azure DevOps demiliani / GitHubProject / Pipelines

You selected a public repository, but this is not a public project. Go to project settings to change the visibility of the project. Learn more

Connect Select Configure Review

New pipeline

### Configure your pipeline

- .NET Core Function App to Windows on Azure**  
Build a .NET Core function app and deploy it to Azure as a Windows function App.
- ASP.NET**  
Build and test ASP.NET projects.
- ASP.NET Core (.NET Framework)**  
Build and test ASP.NET Core projects targeting the full .NET Framework.
- .NET Desktop**  
Build and run tests for .NET Desktop or Windows classic desktop solutions.
- Universal Windows Platform**  
Build a Universal Windows Platform project using Visual Studio.
- Xamarin.Android**  
Build a Xamarin.Android project.
- Xamarin.iOS**  
Build a Xamarin.iOS project.
- Starter pipeline**  
Start with a minimal pipeline that you can customize to build and deploy your code.
- Existing Azure Pipelines YAML file**  
Select an Azure Pipelines YAML file in any branch of the repository.

Show more

Azure DevOps interface showing the 'Review your pipeline YAML' screen. The pipeline configuration is as follows:

```
17 - vmImageName: 'vs2017-win2016'
18
19 # Working Directory
20 workingDirectory: '$(System.DefaultWorkingDirectory)/AzureFunctionLoadCSVtoAzureSQL'
21
22 stages:
23 - stage: Build
24   displayName: Build stage
25
26   jobs:
27   - job: Build
28     displayName: Build
29     pool:
30       vmImage: $(vmImageName)
31
32     steps:
33     - task: DotNetCoreCLI@2
34       displayName: Build
35       inputs:
36         command: 'build'
37         projects: |
38           $(workingDirectory)/*.csproj
39         arguments: '--output $(System.DefaultWorkingDirectory)/publish_output --configuration Release
40
41     - task: ArchiveFiles@2
42       displayName: 'Archive files'
43       inputs:
44         rootFolderOrFile: '$(System.DefaultWorkingDirectory)/publish_output'
45         includeRootFolder: false
46         archiveType: zip
47         archiveFile: '$(Build.ArtifactStagingDirectory)/$(Build.BuildId).zip'
```

demiliani / GitHubProject / Pipelines / demiliani.AzureFunctionLoa...

← demiliani.AzureFunctionLoadCSVtoAzureSQLNAV

Runs Branches Analytics

Description	Stages
#20200519.1 Set up CI with Azure Pipelines Individual CI for  master  fe9168c	

Actions menu: Edit, Run pipeline, Manage security, Rename/move, Status badge, Settings, Delete, Scheduled runs.

demiliani / GitHubProject / Pipelines / demiliani.AzureFunctionLoa...

← demiliani.AzureFunctionLoadCSVtoAzureSQLNAV

Runs Branches Analytics

Description
#20200519.1 Set up CI with Azure Pipelines Individual CI for  master  fe9168c

Status badge configuration:

- Azure Pipelines **never built**
- Branch: master
- Scope: Pipeline
- Image URL: [https://demiliani.visualstudio.com/GitHubProject/\\_apis/build/status/demiliani.AzureFunc](https://demiliani.visualstudio.com/GitHubProject/_apis/build/status/demiliani.AzureFunc)
- Sample markdown: `[[Build Status]][https://demiliani.visualstudio.com/GitHubProject/_apis/build/status/demi`

## Status badge



Tasks Variables Triggers Options Retention History | Save & queue Discard Summary Queue ...

Pipeline Build pipeline

Get sources PartsUnlimited master

Agent job 1 Run on agent

PowerShell Script - Task 1 PowerShell

Agent job Agent job 1 View YAML Remove

Display name \* Agent job 1

Agent selection ^

Agent pool | Pool information | Manage Azure Pipelines

Agent Specification \* windows-2019

Tasks Variables Triggers Options Retention History | Save & queue Discard Summary

Pipeline Build pipeline

Get sources PartsUnlimited master

Agent job 1 Run on agent

PowerShell Script - Task 1 PowerShell

Agent selection

Agent pool | Azure Pipelines

Add an agent job

Add an agentless job

Learn more about jobs

Tasks Variables Triggers Options Retention History | Save & queue Discard Summary Queue ...

Pipeline Build pipeline

Get sources PartsUnlimited master

Agent job 1 Run on agent

PowerShell Script - Task 1 PowerShell

Agent job 2 Run on agent

PowerShell Script - Task 2 PowerShell

Agent job Agent job 2 View YAML Remove

Display name \* Agent job 2

Agent selection ^

Agent pool | Pool information | Manage Default

Demands

Name	Condition	Value
------	-----------	-------

**Pipeline**  
Build pipeline

**Get sources**  
PartsUnlimited master

**Agent job 1**  
Run on agent

**PowerShell Script - Task 1**  
PowerShell

**Agent job 2**  
Run on agent

**PowerShell Script - Task 2**  
PowerShell

**Agent job 3**  
Run on agent

**PowerShell Script - Final Task**  
PowerShell

**Agent Specification \***  
windows-2019

**Demands**

Name	Condition	Value
------	-----------	-------

+ Add

**Execution plan**

**Parallelism**

None  Multi-configuration  Multi-agent

**Timeout \***  
0

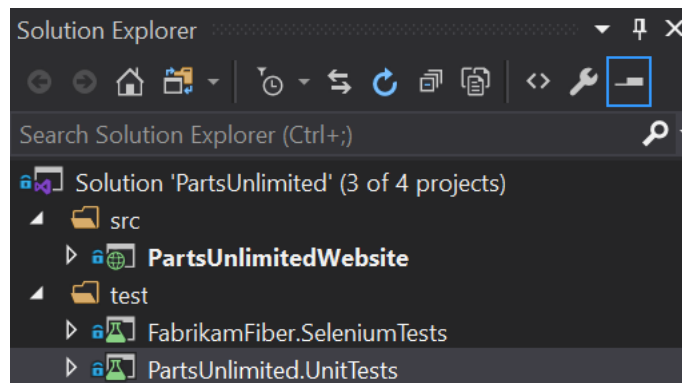
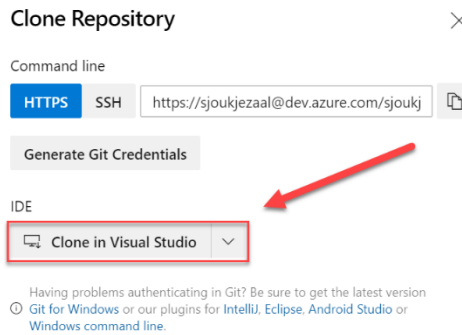
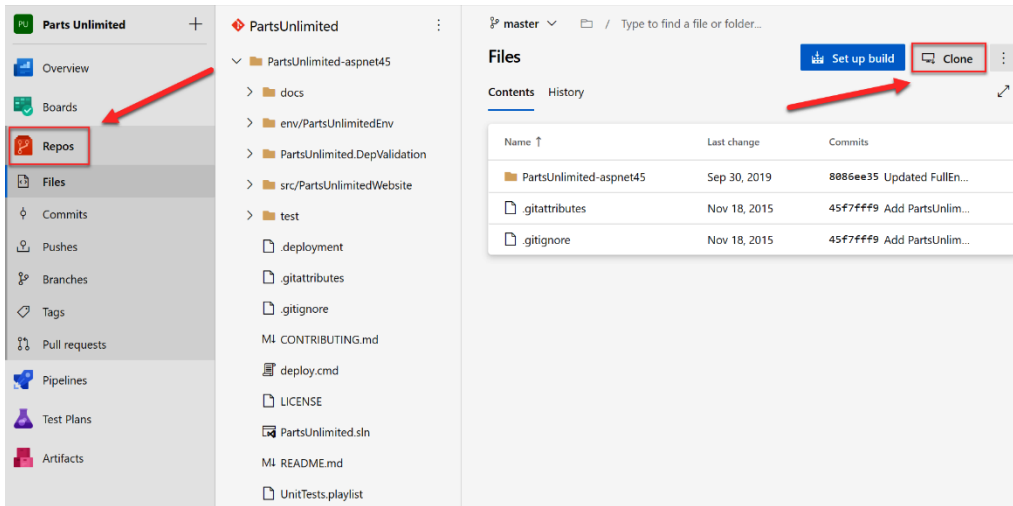
**Job cancel timeout \***  
0

**Dependencies**

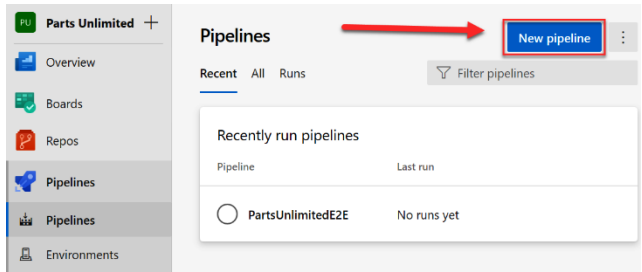
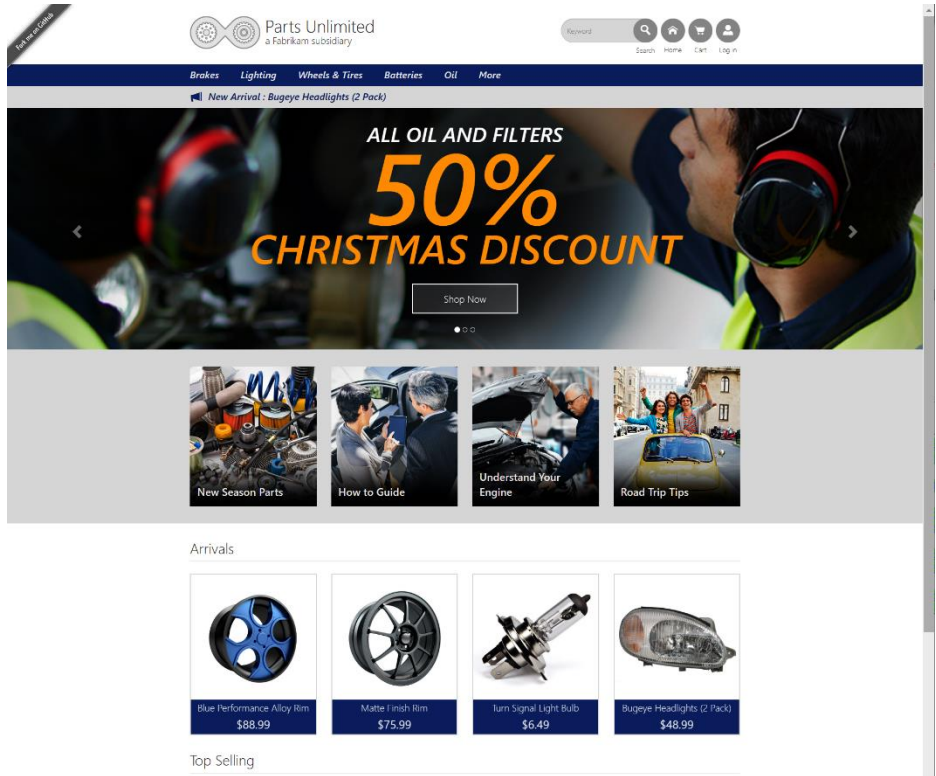
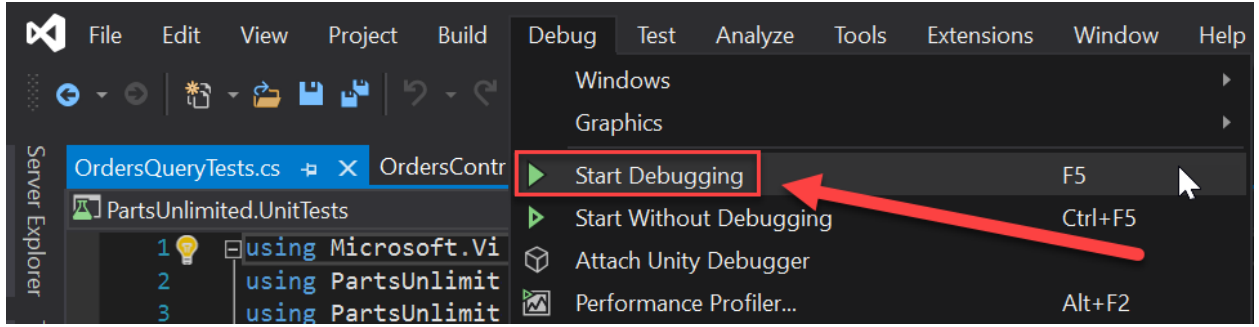
- Agent job 1 (+1)
- Agent job 1
- Agent job 2

**Run this job**  
Only when all previous jobs have succeeded

# Chapter 5: Running Quality Tests in a Build Pipeline







Connect

Select

Configure

Review

New pipeline

## Where is your code?



Azure Repos Git YAML

Free private Git repositories, pull requests, and code search



Bitbucket Cloud YAML

Hosted by Atlassian



GitHub YAML

Home to the world's largest community of developers



GitHub Enterprise Server YAML

The self-hosted version of GitHub Enterprise



Other Git

Any generic Git repository









Subversion

Centralized version control by Apache



Use the classic editor to create a pipeline without YAML.

Select a source

 Azure Repos Git	 GitHub	 GitHub Enterprise Server	 Subversion
 Bitbucket Cloud	 Other Git		

Team project

 Parts Unlimited

Repository

 PartsUnlimited

Default branch for manual and scheduled builds

 master

**Continue**



## Select a template

Or start with an  [Empty job](#)

 Search

### Configuration as code



#### YAML

Looking for a better experience to configure your pipelines using YAML files? Try the new YAML pipeline creation experience. [Learn more](#)

### Featured



#### .NET Desktop

Build and test a .NET or Windows classic desktop solution.



#### Android

Build, test, sign, and align an Android APK.



#### ASP.NET

Build and test an ASP.NET web application.

Apply



#### Azure Web App for ASP.NET

Build, package, test, and deploy an ASP.NET Azure Web App.



#### Docker container

Build a Docker image and push it to a container registry.



Parts Unlimited-ASP.NET-CI

Tasks Variables Triggers Options Retention History | Save & queue Discard Summary Queue ...

Pipeline Build pipeline

Get sources PartsUnlimited master

Agent job 1 Run on agent

- Use NuGet 4.4.1 NuGet tool installer
- NuGet restore NuGet
- Build solution Visual Studio build
- Test Assemblies Visual Studio Test**
- Publish symbols path Index sources and publish symbols
- Publish Artifact Publish build artifacts

Visual Studio Test Link settings View YAML

Task version 2.\*

Display name \* Test Assemblies

Test selection ^

Select tests using \* Test assemblies

Test files \* `**\*test*.dll  
!**\*TestAdapter.dll  
!**\obj\**`

Search folder \* `$(System.DefaultWorkingDirectory)`

Test results folder `$(Agent.TempDirectory)\TestResults`

Test filter criteria

Run only impacted tests

Test mix contains UI tests

Parts Unlimited-ASP.NET-CI

Tasks Variables Triggers Options Retention History | **Save & queue** Discard Summary Queue ...

Pipeline Build pipeline

Get sources PartsUnlimited master

Agent job 1 Run on agent

- Use NuGet 4.4.1 NuGet tool installer
- NuGet restore NuGet
- Build solution Visual Studio build
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Visual Studio Test Link settings View YAML

Task version 2.\*

Display name \* Test Assemblies

Test selection ^

Select tests using \* Test assemblies

Test files \* `**\*test*.dll  
!**\*TestAdapter.dll  
!**\obj\**`

Search folder \* `$(System.DefaultWorkingDirectory)`

Test results folder

### Run pipeline



Select parameters below and manually run the pipeline

Save comment

Run pipeline for test results

Agent pool

Azure Pipelines

Agent Specification \*

vs2017-win2016

Branch/tag

master

Select the branch, commit, or tag

#### Advanced options

Variables  
3 variables defined

Demands  
This pipeline has no defined demands

Enable system diagnostics

Cancel

Save and run



#20200608.1 ~~Deleted~~ azure-pipelines.yml

Cancel



on Parts Unlimited-ASP.NET-CI

#### Summary

Manually run by Sjoukje Zaal

View 108 changes

Repository and version

PartsUnlimited

master 5736ecc

Time started and elapsed

Just now

-

Related

0 work items

0 artifacts

Tests and coverage

Get started

#### Jobs

Name	Status	Duration
Agent job 1	Queued	

# ✓ #20200608.1 Deleted azure-pipelines.yml

on Parts Unlimited-ASP.NET-CI ✨ Retained

Run new



Summary **Tests** Code Coverage

Manually run by Sjoukje Zaal

View 108 changes

Repository and version

◆ PartsUnlimited

📁 master 📄 5736ecc

Time started and elapsed

📅 Today at 6:07 PM

🕒 2m 3s

Related

📁 0 work items

📄 1 published

Tests and coverage

📊 87.5% passed

🔗 Setup code coverage

## Warnings 1



PartsUnlimited-aspnet45\src\PartsUnlimitedWebsite\Controllers\ManageController.cs(135,41): Warning CS1998: This async method lack...  
Build solution

## Jobs

Name

Status

Duration



Agent job 1

Success

🕒 1m 57s

# #20200608.1 Deleted azure-pipelines.yml

on Parts Unlimited-ASP.NET-CI ✨ Retained

Run new

Summary **Tests** Code Coverage

## Summary

1 Run(s) Completed ( 1 Passed, 0 Failed )

Total tests: 16 (14 Passed, 0 Failed, 2 Others)  
Pass percentage: 87.5%  
Run duration: 8s 410ms  
Tests not reported: 0

Bug Link

Test run Column Options

Filter by test or run name

Tags Test file Owner Aborted (+2)

Test	Duration	Failing since
TestRun_Parts Unlimited-ASP.NET-CI_20200608.1 (14/16)	0:00:08.410	
✓ AzureMLRecommendation_Exception	0:00:00.486	
✓ AzureMLRecommendation_Result	0:00:00.287	
✓ OrdersQuery_IndexHelperWithNoUsername	0:00:00.194	
✓ Home_Index	0:00:00.187	
✓ Order_Index	0:00:00.146	
✓ Order_DetailWithNullId	0:00:00.080	
✓ Order_DetailWithOrderDetails	0:00:00.043	
✓ Order_DetailWithNoDetails	0:00:00.010	
✓ OrdersQuery_IndexHelperWithUsername	0:00:00.007	
✓ Order_DetailWithUserMismatch	0:00:00.004	
✓ ProductSearch_TestStringExistingProduct	0:00:00.003	
✓ ProductSearch_TestStringExistingProductPartial	0:00:00.000	
✓ ProductSearch_TestStringNoHit	0:00:00.000	
✓ AzureMLRecommendation_NoResult	0:00:00.000	

- Failed
- Aborted
- Passed
- Passed on rerun
- Not Impacted
- Others

Clear

The screenshot shows the Azure Pipelines interface for a pipeline named 'Parts Unlimited-ASP.NET-CI'. The left sidebar contains navigation options: Overview, Boards, Repos, Pipelines, and Environments. The 'Pipelines' option is highlighted with a red box and a red arrow. The main content area shows the pipeline details, including the description '#20200608.1 Deleted azure-pipelines.yml' and the status 'Manually triggered for master 5736ecc'. The 'Edit' button is highlighted with a red box and a red arrow.



# Parts Unlimited-ASP.NET-CI

Tasks Variables Triggers Options Retention History

Save & queue Discard Summary Queue ...

Pipeline Build pipeline

Get sources PartsUnlimited master

Agent job 1 Run on agent

- Use NuGet 4.4.1 NuGet tool installer
- NuGet restore NuGet
- Build solution Visual Studio build
- Test Assemblies Visual Studio Test**
- Publish symbols path Index sources and publish symbols
- Publish Artifact Publish build artifacts

## Execution options

Select test platform using

- Version
- Specific location

Test platform version

Latest

Settings file

Override test run parameters

Path to custom test adapters

Run tests in parallel on multi-core machines

Run tests in isolation

Code coverage enabled



Other console options

Collect advanced diagnostics in case of catastrophic failures

Rerun failed tests

Advanced execution options

## Code Coverage Results

Hierarchy	Not Covered (Blocks)	Not Covered (% Blocks)	Covered (Blocks)	Covered (% Blocks)
20200609.2.release.any cpu.16.coverage				
20200609.2.release.any cpu.16...	1753	80.67%	420	19.33%
fabrikamfiber.seleniumtests...	74	100.00%	0	0.00%
partsunlimited.dll	1620	89.95%	181	10.05%
PartsUnlimited	242	100.00%	0	0.00%
PartsUnlimited.Api	24	100.00%	0	0.00%
PartsUnlimited.Areas.Ad...	4	100.00%	0	0.00%
PartsUnlimited.Areas.Ad...	153	100.00%	0	0.00%
PartsUnlimited.Controll...	255	75.00%	85	25.00%
PartsUnlimited.Models	278	100.00%	0	0.00%
PartsUnlimited.ProductS...	10	50.00%	10	50.00%
PartsUnlimited.Recomm...	2	50.00%	2	50.00%
PartsUnlimited.Security	28	100.00%	0	0.00%
PartsUnlimited.Utils	624	89.14%	76	10.86%
PartsUnlimited.ViewMo...	0	0.00%	8	100.00%
partsunlimited.unittests.dll	59	19.80%	239	80.20%
PartsUnlimited.UnitTests...	0	0.00%	64	100.00%
HomeControllerTests	0	0.00%	52	100.00%
OrdersControllerTests	0	0.00%	12	100.00%
PartsUnlimited.UnitTests...	59	25.21%	175	74.79%
MockDataContext	23	16.43%	117	83.57%
AddProductOrde...	0	0.00%	16	100.00%
CreateProduct(in...	0	0.00%	19	100.00%
Dispose()	1	100.00%	0	0.00%
Entry(object)	2	100.00%	0	0.00%
InitOrders()	0	0.00%	57	100.00%
InitProducts()	0	0.00%	21	100.00%
MockDataContex...	0	0.00%	4	100.00%
SaveChangesAsy...	20	100.00%	0	0.00%
MockHttpContext	2	7.69%	24	92.31%
TestDbAsyncEnumer...	4	33.33%	8	66.67%
TestDbAsyncEnumer...	2	18.18%	9	81.82%
TestDbAsyncQueryP...	12	75.00%	4	25.00%
TestDbSet<TEntity>	16	55.17%	13	44.83%

Summary **Tests** Code Coverage

### Summary

1 Run(s) Completed ( 1 Passed, 0 Failed )

Total tests: 16 (14 Passed, 0 Failed, 2 Others)  
Pass percentage: 87.5%  
Run duration: 24s 77ms  
Tests not reported: 0

Bug [Link](#)

Test run Column Options

Filter by test or run name

Tags Test file Owner Passed

Test	Duration	Failing since
TestRun_Parts Unlimited-ASP.NET-CI_20200610.1 (14/16)	0:00:24.077	
✓ AzureMLRecommendation_Exception		
✓ OrdersQuery_IndexHelperWithNoUsername	0:00:00.330	
✓ AzureMLRecommendation_Result	0:00:00.200	
✓ Home_Index	0:00:00.143	
✓ Order_DetailWithNullId	0:00:00.060	
✓ Order_Index	0:00:00.056	
✓ Order_DetailWithNoDetails	0:00:00.017	
✓ Order_DetailWithOrderDetails	0:00:00.016	

- Failed
- Aborted
- Passed
- Passed on rerun
- Not Impacted
- Others

Clear

Bug [Link](#)

Test run Column Options


Filter by test or run name

Tags Test file Owner Passed

Test	Duration	Failing since	Failing build	Tags
TestRun_Parts Unlimited-ASP.NET-CI_20200610.1 (14/16)	0:00:24.077			
✓ AzureMLRecommendation_Exception	0:00:00.473			
✓ OrdersQuery_IndexHelperWithNoUsername	0:00:00.330			
✓ AzureMLRecommendation_Result	0:00:00.200			
✓ Home_Index	0:00:00.143			
✓ Order_DetailWithNullId	0:00:00.060			

## Associate tests to work item

 As a tester 

ID ↑	Title	State	Assigned To
160	 As tester, I need to test th...	● New	

[Associate](#) [Close](#)

AzureMLRecommendation\_Exception

Result Details			
✓ Passed 1h ago on fv-az335	Duration	0:00:00.473	
Owner	not available	Date started	6/10/2020, 8:05:25 AM
Date completed	6/10/2020, 8:05:25 AM		

[Debug](#) [Work items](#) [Attachments](#) [History](#)

### Requirements (1)

ID ↓	Title	State	Assigned To
160	 As tester, I need to test the website on all the relevant browsers and d	● New	

```
AzureAD+SjoukjeZaal@SZ-Desktop MINGW64 ~/RazorFeatureFlags
$ dotnet run
info: Microsoft.Hosting.Lifetime[0]
      Now listening on: https://localhost:5001
info: Microsoft.Hosting.Lifetime[0]
      Now listening on: http://localhost:5000
info: Microsoft.Hosting.Lifetime[0]
      Application started. Press Ctrl+C to shut down.
info: Microsoft.Hosting.Lifetime[0]
      Hosting environment: Development
info: Microsoft.Hosting.Lifetime[0]
      Content root path: C:\Users\SjoukjeZaal\RazorFeatureFlags
```

RazorFeatureFlags [Home](#) [Privacy](#)

# Welcome

Learn about building Web apps with [ASP.NET Core](#).

```
Pages > Index.cshtml.cs > {} RazorFeatureFlags.Pages
1  using System;
2  using System.Collections.Generic;
3  using System.Linq;
4  using System.Threading.Tasks;
5  using Microsoft.AspNetCore.Mvc;
6  using Microsoft.AspNetCore.Mvc.RazorPages;
7  using Microsoft.Extensions.Logging;
8  using Microsoft.FeatureManagement;
9
10 namespace RazorFeatureFlags.Pages
11 {
12     6 references
13     public class IndexModel : PageModel
14     {
15         2 references
16         private readonly IFeatureManager _featureManager;
17         0 references
18         public IndexModel(IFeatureManager featureManager)
19         {
20             _featureManager = featureManager;
21         }
22         1 reference
23         public static string WelcomeMessage { get; set; }
24
25         0 references
26         public async Task OnGetAsync()
27         {
28             WelcomeMessage = await _featureManager.IsEnabledAsync("ChangeBanner")
29             ? "Welcome to Learn Azure DevOps" : "Welcome";
30         }
31     }
32 }
```

# Welcome to Learn Azure DevOps

Learn about [building Web apps with ASP.NET Core](#).

# Chapter 6: Hosting Your Own Azure Pipeline Agent

New Project Name :

Select Organization :

Selected Template :

**Congratulations! Your project is successfully provisioned.**

Like the tool? Share your feedback

- ✔ Project PartsUnlimited-SelfHosted created
- ✔ 2 team(s) created
- ✔ Board-Column, Swimlanes, Styles updated
- ✔ Work Items created
- ✔ Build definition created
- ✔ Release definition created

Home > New >

## Marketplace

My Saved List

Recently created

Service Providers

Categories

Get Started

AI + Machine Learning

Analytics

Blockchain

Compute

Containers

Pricing : All

Operating System : All

Publisher : All

Showing All Results

 <b>Visual Studio Code in Browser</b> TechLatest Visual Studio Code in your browser	 <b>Visual Studio</b> Microsoft Visual Studio images for Azure	 <b>Visual Studio 2019</b> Microsoft Visual Studio images for Azure	 <b>Visual Studio 2019 Latest</b> Microsoft Visual Studio images for Azure
--	---	--	---

# Visual Studio

Microsoft



## Visual Studio [Save for later](#)

Microsoft

### Select a software plan

Visual Studio Enterprise 2017 on Win... ^ [Create](#) [Start with a pre-set configuration](#)

- Visual Studio Enterprise 2017 on Windows Server 2016 (x64)
- Visual Studio Enterprise 2017 on Windows 10 Enterprise N (x64)
- Visual Studio Enterprise 2017 (latest release) on Windows Server 2016 (x64)
- Visual Studio Enterprise 2017 (latest release) on Windows 10 Enterprise N (x64)
- Visual Studio Enterprise 2015 Update 3 with Universal Windows Tools and Azure SDK 2.9 on Windows 10 Enterprise N (x64)
- Visual Studio Enterprise 2015 Update 3 with Azure SDK 2.9 on Windows Server 2012 R2
- Visual Studio Community 2017 on Windows Server 2016 (x64)**
- Visual Studio Community 2017 on Windows 10 Enterprise N (x64)
- Visual Studio Community 2017 (latest release) on Windows Server 2016 (x64)
- Visual Studio Community 2017 (latest release) on Windows 10 Enterprise N (x64)
- Visual Studio Community 2015 Update 3 with Universal Windows Tools and Azure SDK 2.9 on Windows 10 Enterprise N (x64)
- Visual Studio Community 2015 Update 3 with Azure SDK 2.9 on Windows Server 2012 R2

### Overview

Using Visual Studio  
Visual Studio configu  
the "latest" updated  
Microsoft Visual Stud  
analyzing code qual  
Development Enviro

End of Support notifi  
product after suppor

### Useful Links

- [Visual Studio VMs](#)
- [Provide survey feed](#)
- [Monthly Azure cred](#)
- [Visual Studio Produ](#)
- [Microsoft Lifecycle](#)

images with different  
aka 'RTM') version, and  
testing, debugging,  
Studio Integrated  
images for this

## Pipelines

- Agent pools**
- Settings
- Deployment pools
- Parallel jobs
- OAuth configurations

**Organization settings**

## Agent pools



Security

**Add pool**

Name	Queued jobs	Running jobs
<b>Azure Pipelines</b> Azure Pipelines		
<b>Default</b> Azure Pipelines		



# Add agent pool



Agent pools are shared across an organization.

Pool type:

Self-hosted

Name:

My Pool - VS 2017 Based

Description (optional):

Markdown supported.

Pipeline permissions:

- Grant access permission to all pipelines
- Auto-provision this agent pool in all projects

## Agent Pools

Manage agent pools and agents

- Read
- Read & manage



Preview features

Profile

Time and Locale

Notifications

Theme

Usage

Personal access tokens

SSH public keys

Alternate credentials

# Create a new personal access token



**Name**  
Self-Hosted Agent Token

**Organization**  
PacktLearnAzureDevOps

**Expiration (UTC)**  
Custom defined 6/24/2021

**Scopes**  
Authorize the scope of access associated with this token  
Scopes  Full access  Custom defined

**Agent Pools**  
Manage agent pools and agents  
 Read  Read & manage

## Analytics

Read data from the analytics service

Read

## Auditing

Read audit log events, manage and delete streams.

Read Audit Log  Manage Audit Streams  Delete Audit Streams

## Build

Artifacts, definitions, requests, queue a build, and updated build properties

Read  Read & execute

## Code

Show less scopes

Create

Cancel

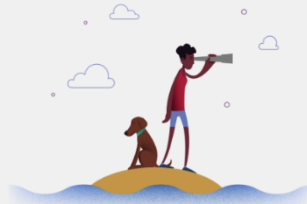


## My Pool - VS 2017 Based

Update all agents

New agent

Jobs Agents Details Security Settings Maintenance History



**No jobs have run on this agent pool**

Run a pipeline on this agent pool to see more details

Windows

macOS

Linux

x64

x86

## System prerequisites

### Configure your account

Configure your account by following the steps outlined [here](#).

### Download the agent

Download



### Create the agent

```
PS C:\> mkdir agent ; cd agent
PS C:\agent> Add-Type -AssemblyName System.IO.Compression.FileSystem ;
[System.IO.Compression.ZipFile]::ExtractToDirectory("$HOME\Downloads\vsts
agent-win-x64-2.171.1.zip", "$PWD")
```

### Configure the agent [Detailed instructions](#)

```
PS C:\agent> .\config.cmd
```

### Optionally run the agent interactively

If you didn't run as a service above:

```
PS C:\agent> .\run.cmd
```

That's it!

[More Information](#)

Administrator: Windows PowerShell

```
windows PowerShell
Copyright (C) 2016 Microsoft Corporation. All rights reserved.

PS C:\Users\AzureUser> cd C:\
PS C:\>
```

agent

File Home Share View

← → ↕ ↑ This PC > Windows (C:) > agent >

Name	Date modified	Type	Size
bin	6/27/2020 8:44 AM	File folder	
externals	6/27/2020 8:45 AM	File folder	
config	6/22/2020 4:20 PM	Windows Command ...	3 KB
run	6/22/2020 4:20 PM	Windows Command ...	4 KB

```
PS C:\agent> .\config.cmd

Azure Pipelines
agent v2.171.1 (commit 798f533)

>> Connect:
Enter server URL > https://dev.azure.com/PacktLearnAzureDevOps
Enter authentication type (press enter for PAT) >
Enter personal access token > *****
Connecting to server ...

>> Register Agent:
Enter agent pool (press enter for default) > My Pool - VS 2017 Based
Enter agent name (press enter for agent2017) > Agent1-2017
Scanning for tool capabilities.
Connecting to the server.
Successfully added the agent
Testing agent connection.
Enter work folder (press enter for _work) >
2020-06-27 09:17:37Z: Settings saved.
Enter run agent as service? (Y/N) (press enter for N) > Y
Enter User account to use for the service (press enter for NT AUTHORITY\NETWORK SERVICE) >
Granting file permissions to 'NT AUTHORITY\NETWORK SERVICE'.
Service vstsagent.PacktLearnAzureDevOps.My Pool - VS 2017 Based.Agent1-2017 successfully installed
Service vstsagent.PacktLearnAzureDevOps.My Pool - VS 2017 Based.Agent1-2017 successfully set recovery option
Service vstsagent.PacktLearnAzureDevOps.My Pool - VS 2017 Based.Agent1-2017 successfully set to delayed auto start
Service vstsagent.PacktLearnAzureDevOps.My Pool - VS 2017 Based.Agent1-2017 successfully configured
Service vstsagent.PacktLearnAzureDevOps.My Pool - VS 2017 Based.Agent1-2017 started successfully
PS C:\agent>
```


My Pool - VS 2017 Based Update all agents New agent


Jobs Agents Details Security Settings Maintenance History


Name	Last run	Current status	Agent version	Enabled
Agent1-2017 ● Online		Idle	2.171.1	<input checked="" type="checkbox"/> On

 **PartsUnlimited-SelfHo...** 

 Overview


 Boards


 Repos


 **Pipelines**


 **Pipelines**


 Environments

 Releases

 Library

 Task groups

 Deployment groups

 Test Plans

 Artifacts

# PartsUnlimitedE2E

Tasks Variables Triggers Options Retention History | Save & queue Discard Summary Queue ...

**Pipeline**  
Build pipeline

Get sources  
PartsUnlimited master

Phase 1  
Run on agent

- NuGet restore  
NuGet Installer
- Build solution  
Visual Studio build
- Test Assemblies  
Visual Studio Test
- Copy Files  
Copy files
- Publish Artifact  
Publish build artifacts

Name \*

PartsUnlimitedE2E

Agent pool \* | Pool information | Manage

Azure Pipelines

Hosted

- Azure Pipelines

Private

- Default (No agents)
- My Pool - VS 2017 Based**

Learn more

# PartsUnlimitedE2E

Tasks Variables Triggers Options Retention History

Save & queue

**Pipeline**  
Build pipeline

Get sources  
PartsUnlimited master

Save & queue

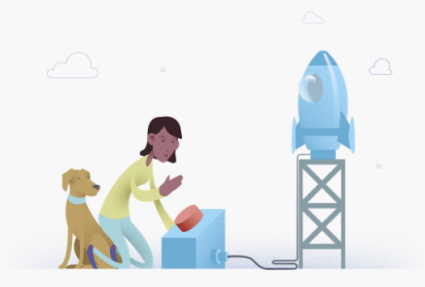
**Save**

Save as draft

← PartsUnlimitedE2E

Edit **Run pipeline** ⋮

Runs Branches Analytics



Get started and run this pipeline for the first time!

**Run pipeline**



## Run pipeline




Select parameters below and manually run the pipeline

Agent pool

My Pool - VS 2017 Based



Branch/tag

 master



Select the branch, commit, or tag

## Advanced options

Variables

3 variables defined



Demands

This pipeline has no defined demands





Enable system diagnostics

Cancel

Run

## Jobs

Name	Status	Duration
 Phase 1	Running	 47s

« [Create a resource](#)

[Home](#)

[Dashboard](#)

[All services](#)

★ **FAVORITES**

[All resources](#)

[Resource groups](#)

[Home](#) >

# New

Virtual machine scale set

[Get started](#)

[Recently created](#)



**Windows Server 2016 Datacenter**

[Quickstarts + tutorials](#)

# Create a virtual machine scale set

## Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription \*  ✓

Resource group \*  ✓  
[Create new](#)

## Scale set details

Virtual machine scale set name \*  ✓

Region \*  ✓

Availability zone ⓘ  ✓

## Instance details

Image \* ⓘ  ✓  
[Browse all public and private images](#)

Azure Spot instance ⓘ  Yes  No

Size \* ⓘ  ✓  
[Select size](#)

## Administrator account

Authentication type ⓘ  Password  SSH public key

Username \* ⓘ  ✓

Password \* ⓘ  ✓

Confirm password \* ⓘ  ✓

[Review + create](#) [< Previous](#) [Next : Disks >](#)

## Load balancing

You can place this virtual machine scale set in the backend pool of an existing Azure load balancing solution. [Learn more](#)

Use a load balancer  Yes  No

# Create a virtual machine scale set

Basics   Disks   Networking   Scaling   Management   Health   Advanced   Tags   Review + create

An Azure virtual machine scale set can automatically increase or decrease the number of VM instances that run your application. This automated and elastic behavior reduces the management overhead to monitor and optimize the performance of your application. [Learn more about VMSS scaling](#)

## Instance

Initial instance count \* ⓘ

## Scaling

Scaling policy ⓘ

 Manual  Custom

## Scale-In policy

Configure the order in which virtual machines are selected for deletion during a scale-in operation. [Learn more about scale-in policies.](#)

Scale-in policy

## Upgrade policy

Upgrade mode \* ⓘ

## Add agent pool ✕

Agent pools are shared across an organization.

Pool type: ⓘ

Azure virtual machine scale set (Preview)

Project for Service Connections:

PartsUnlimited-SelfHosted

Azure subscription:

This subscription requires authorization

**Authorize**

Virtual machine scale set:

AzurePipelines-ScaleSet

Name:

Scale-Set-Agents

Description (optional):

[Markdown supported.](#)

Pool options:

- Automatically tear down virtual machines after every use
- Preserve machines with failed runs for diagnostics

Maximum number of virtual machines in the scale set

5

Number of agents to keep on standby

1

Pipeline permissions:

- Grant access permission to all pipelines
- Auto-provision this agent pool in all projects

Create



## Scale-Set-Agents

Update all agents

Jobs Agents Details Security Settings Maintenance History

Name	Last run	Current status	Agent version	Enabled
azurepipe000004 <span>● Online</span>		Idle	2.171.1	<input checked="" type="checkbox"/> On
azurepipe000005 <span>● Online</span>		Idle	2.171.1	<input checked="" type="checkbox"/> On

# Chapter 7: Using Artifacts with Azure DevOps

### Create new feed ✕

Feeds host your packages and let you control permissions.

Name

This name will appear in the URL for your feed

Visibility

Members of sjoukjezaal  
Any member of your organization can view the packages in this feed

Specific people  
Only users you grant access to can view the packages in this feed

Upstream sources

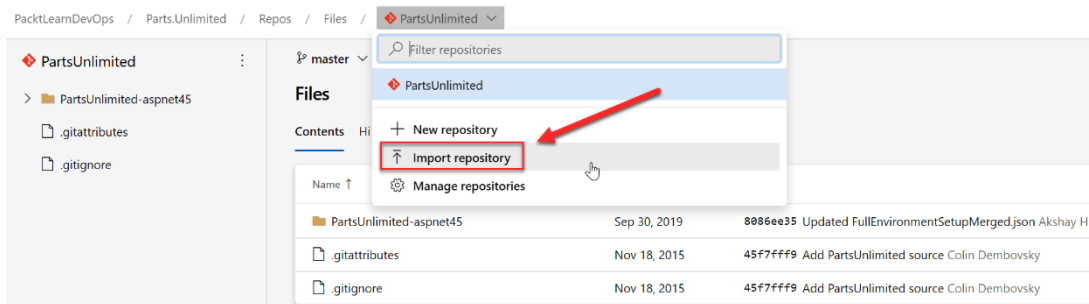
Include packages from common public sources

For example: nuget.org, npmjs.com

Scope

Project: Parts Unlimited (Recommended)  
The feed will be scoped to the Parts Unlimited project. [Learn more.](#)

Organization



# Import a Git repository



Repository type

 Git ▼

Clone URL \*

https://github.com/SjoukjeZaal/LearnAzureDevOps.git

Requires Authentication

Name \*







PartsUnlimited.Models

Cancel **Import**


The screenshot shows a file explorer interface for a Git repository named 'PartsUnlimited.Models'. The left sidebar shows the file tree with folders like '.vs/PartsUnlimited.Models/v16', 'packages', and 'PartsUnlimited.Models', and files like 'PartsUnlimited.Models.sln' and 'README.md'. The main area shows the 'Files' view for the 'master' branch, displaying a table of repository contents.

Name ↑	Last change	Commits
.vs/PartsUnlimited.Models/v16	Yesterday	48f300a7 Added project ...
packages	Yesterday	48f300a7 Added project ...
PartsUnlimited.Models	Yesterday	48f300a7 Added project ...
PartsUnlimited.Models.sln	Yesterday	48f300a7 Added project ...
README.md	Yesterday	abd1364e first commit Sjo...


Select a source

 Azure Repos Git	 GitHub	 GitHub Enterprise Server	 Subversion
 Bitbucket Cloud	 Other Git		

Team project

 Parts.Unlimited

Repository

 PartsUnlimited.Models

Default branch for manual and scheduled builds

 master

Continue



Pipeline  
Build pipeline

Get sources  
PartsUnlimited master

Agent job 1  
Run on agent

- Use NuGet 4.4.1  
NuGet tool installer
- NuGet restore  
NuGet
- Build solution  
Visual Studio build
- Test Assemblies  
Visual Studio Test
- Publish symbols path  
Index sources and publish symbols
- Publish Artifact  
Publish build artifacts

Add tasks | Refresh

Search: nuget

**NuGet**  
Restore, pack, or push NuGet packages, or run a NuGet command. Supports NuGet.org and authenticated feeds like Azure Artifacts and MyGet. Uses NuGet.exe and works with .NET Framework apps. For .NET Core and .NET Standard apps, use the .NET Core task.

by Microsoft Corporation

[Add](#) [Learn more](#)

**NuGet authenticate**  
Configure NuGet tools to authenticate with Azure Artifacts and other NuGet repositories. Requires NuGet >= 4.8.5385, dotnet >= 2.1.400, or MSBuild >= 15.8.166.59604

Agent job 1  
Run on agent

- Use NuGet 4.4.1  
NuGet tool installer
- NuGet restore  
NuGet
- Build solution  
Visual Studio build
- NuGet pack**  
NuGet
- Publish symbols path  
Index sources and publish symbols
- Publish Artifact  
Publish build artifacts

NuGet ⓘ [Link settings](#) [View YAML](#)

Task version

Display name \*

Command \* ⓘ

Path to csproj or nuspec file(s) to pack \* ⓘ

Configuration to package ⓘ

Package folder ⓘ

Pack options

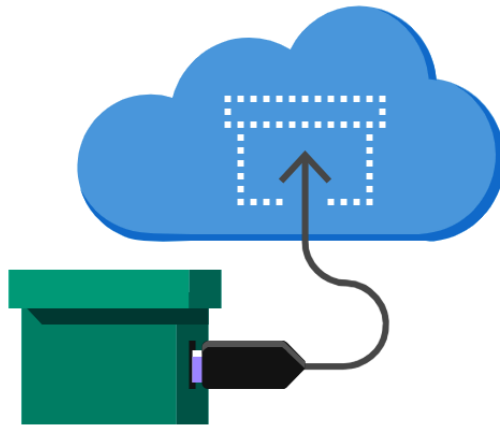

Advanced

Control Options

Output Variables

ⓘ You can now search for packages across feeds. Try searching for a package in the search box. [Learn more.](#)


| [+ Create Feed](#) [🔗 Connect to feed](#) [🗑 Recycle Bin](#)



Connect to the feed to get started

[🔗 Connect to feed](#)

[Learn more about Azure Artifacts](#)

Feed details **Permissions** Views Upstream sources + Add users/groups  Delete ...

User/Group	Role	Inherited
[PacktLearnDevOps]\Project Collection Administrators	Owner	✓
Project Collection Build Service (PacktLearnDevOps)	Contributor	
[PacktLearnDevOps]\Project Collection Valid Users	Reader	✓

### Add users or groups

Users/groups

PS Parts.Unlimited Build Service (PacktLearnDevOps) ▼

- Role
- Owner
  - Contributor
  - Collaborator
  - Reader

Save Close

**Pipeline**  
Build pipeline

**Get sources**  
PartsUnlimited.Models master

**Agent job 1**  
Run on agent

- Use NuGet 4.4.1 (NuGet tool installer)
- NuGet restore (NuGet)
- Build solution (Visual Studio build)
- NuGet pack (NuGet)
- NuGet push (NuGet)**
- Publish symbols path (Index sources and publish symbols)
- Publish Artifact (Publish build artifacts)

**NuGet** [Link settings](#) [View YAML](#) [Trash](#)

Task version: 2.\*

Display name: NuGet push

Command: push

Path to NuGet package(s) to publish: \$(Build.ArtifactStagingDirectory)/\*\*/\*.nupkg!\$(Build.ArtifactStagingDirectory)/\*\*/\*.symbols.nupkg

Target feed location:  This organization/collection  External NuGet server (including other accounts/collections)

Target feed: PacktLearnDevOps

Allow duplicates to be skipped

Advanced  Control Options  Output Variables


**Parts.Unlimited**


- Overview
- Boards
- Repos
- Pipelines
- Test Plans
- Artifacts**

You can now search for packages across feeds. Try searching for a package in the search box. [Learn more.](#)

PacktLearnDev... [+ Create Feed](#) [Connect to feed](#) [Recycle Bin](#)

Filter by keywords View Source X

Package	Views	Source	Last pushed	Description	Downloads
 <b>PartsUnlimited.Models</b> Version 1.0.0-CI-20200628-08		This feed	3m ago	Description	↓ 0



# Configure your new project

Console App (.NET Core) Console C# Linux macOS Windows

Project name

Location

 ...


Solution name ⓘ

Place solution and project in the same directory

Back Create

PacktLearnDev... | + Create Feed 🔌 Connect to feed 🗑️ Recycle Bin

Filter by keywords View

Package	Views	Source	Last pushed	Description
 <b>PartsUnlimited.Models</b> Version 1.0.0-CI-20200628-08-		This feed	Sunday	Description

🔔 You can now search for packages across feeds. Try searching for a package in the search box. [Learn more.](#)



## ← Connect to feed

PackLearnDevOps

NuGet

dotnet

NuGet.exe

Visual Studio

npm

npm

Maven

Maven

Gradle

Python

pip

twine

## Visual Studio

Learn about restoring packages

Get the tools

🔔 First time using Azure Artifacts with Visual Studio on this machine?

Get the tools

### Machine setup

On the Tools menu, select Options > NuGet Package Manager > Package Sources. Select the green plus in the upper-right corner and enter the name and source URL below.

Name

PackLearnDevOps

Source

[https://pkgs.dev.azure.com/PackLearnDevOps/\\_packaging/PackLearnDevOps/nuget/v3/index.json](https://pkgs.dev.azure.com/PackLearnDevOps/_packaging/PackLearnDevOps/nuget/v3/index.json)

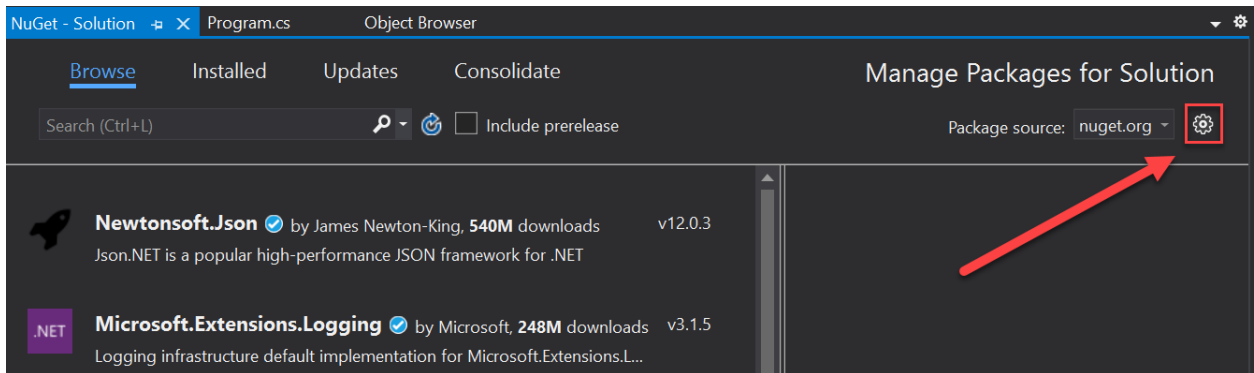
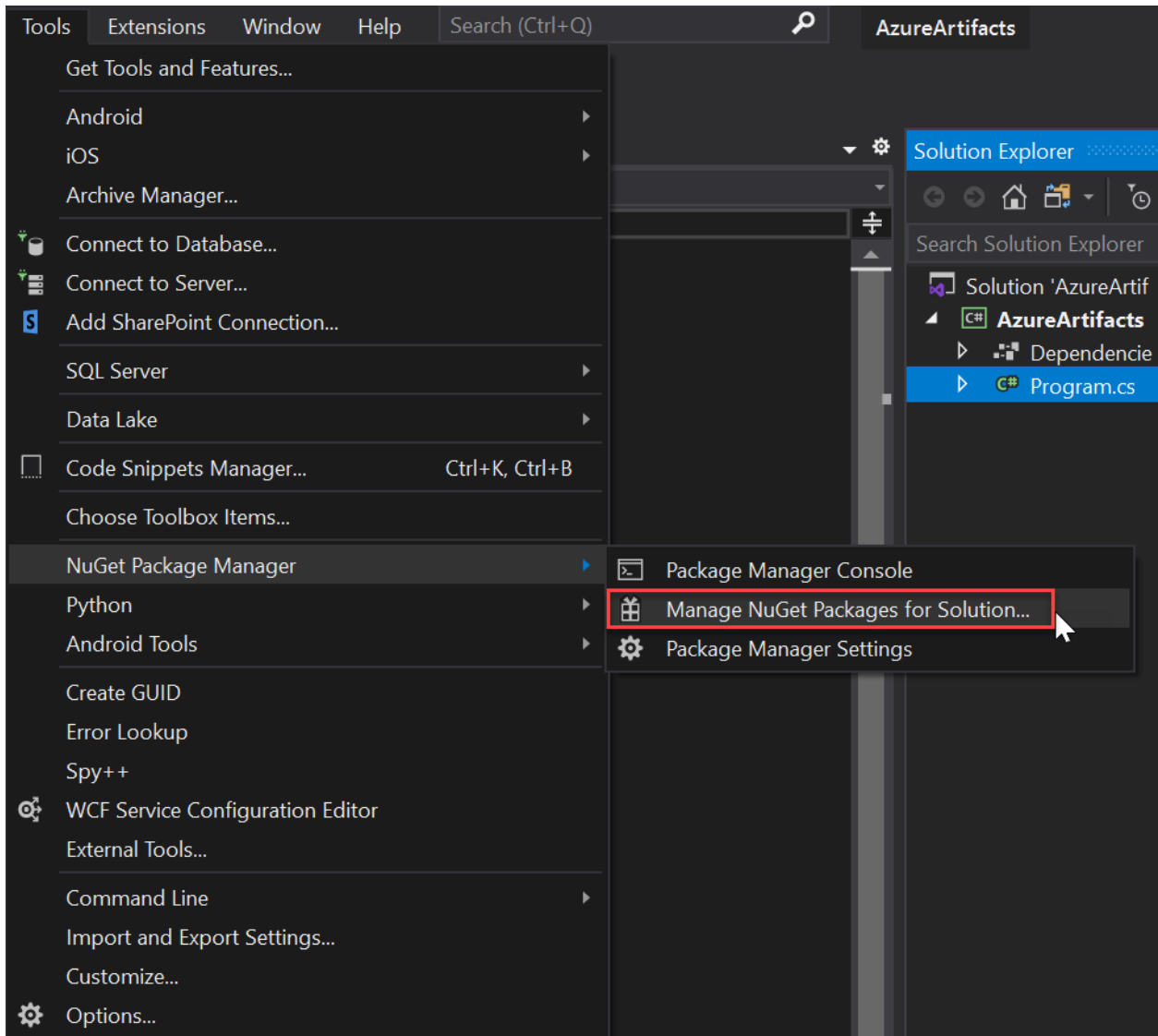
Note: You need to do this on every machine that needs access to your packages. Use the NuGet.exe instructions if you want to complete setup once and check it into your repository.

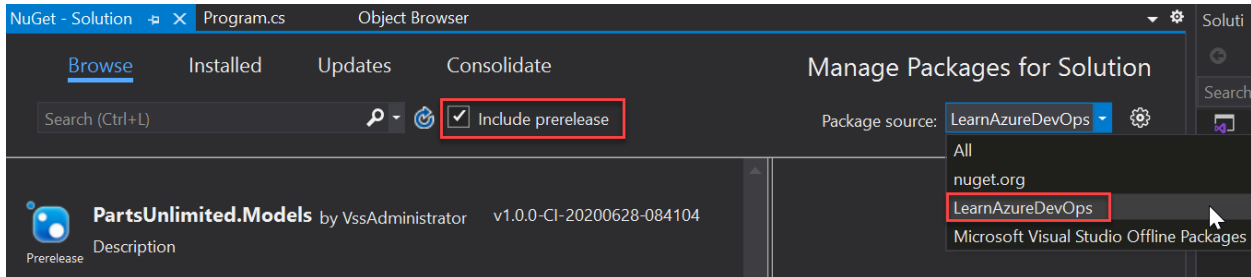
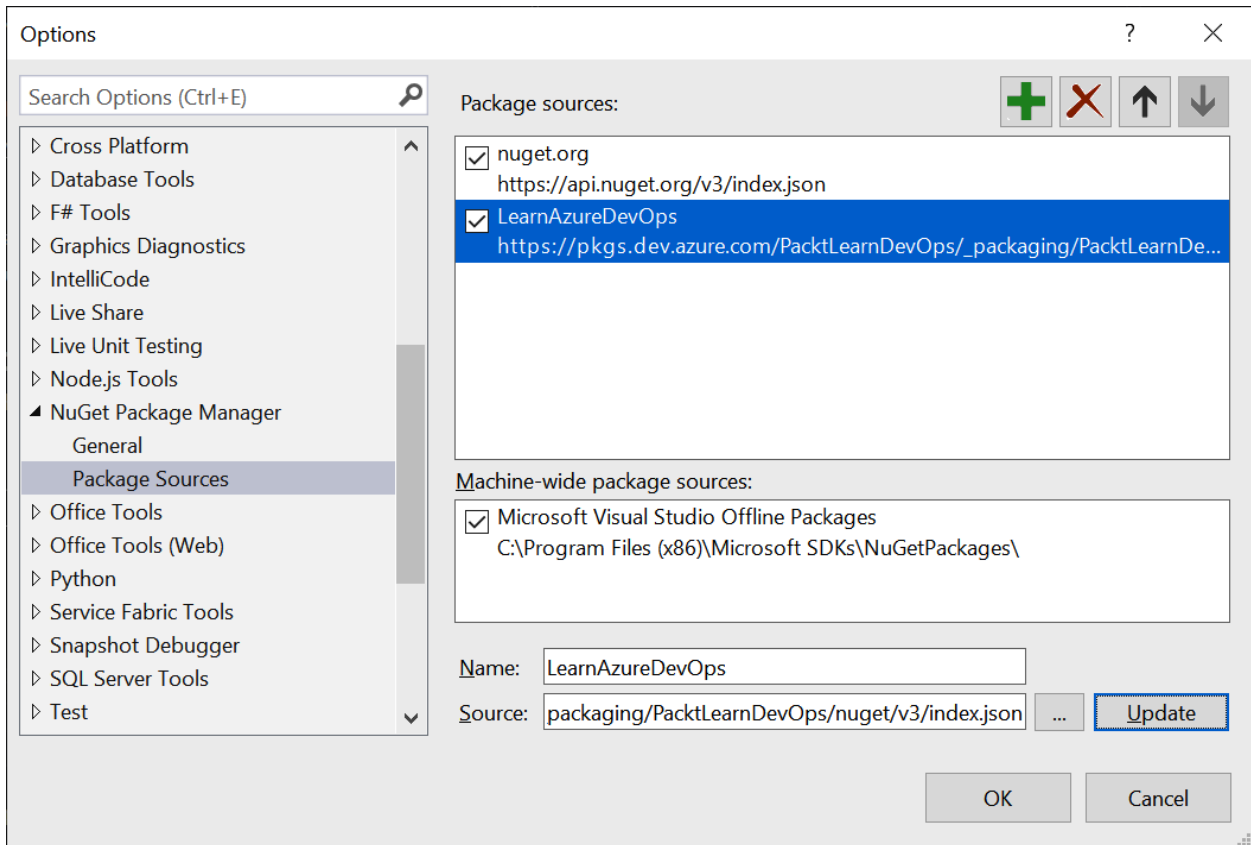
### Restore packages

On the Tools menu, select Options > NuGet Package Manager > Package Manager Console. Find a package you want to use, copy the Package Manager command, and paste it in the Package Manager Console.

For example:

Install-Package NUnit








Whitesource bolt




3 Results

Showing: All categories


Hosted On: Any




**WhiteSource Bolt**  
WhiteSource  15.9K

Detect & fix security vulnerabilities, problematic open source licenses.


★★★★☆ **FREE**




**WhiteSource for Azure**  
WhiteSource  2.7K

Detect & fix security vulnerabilities, problematic open source licenses and...

★★★★★ **FREE**



**Wrapper above WS-Sc**  
Anton  32

An Azure DevOps Build/Release Task to perform execute WhiteSource unifie...

★★★★☆ **FREE**



Organization



Done

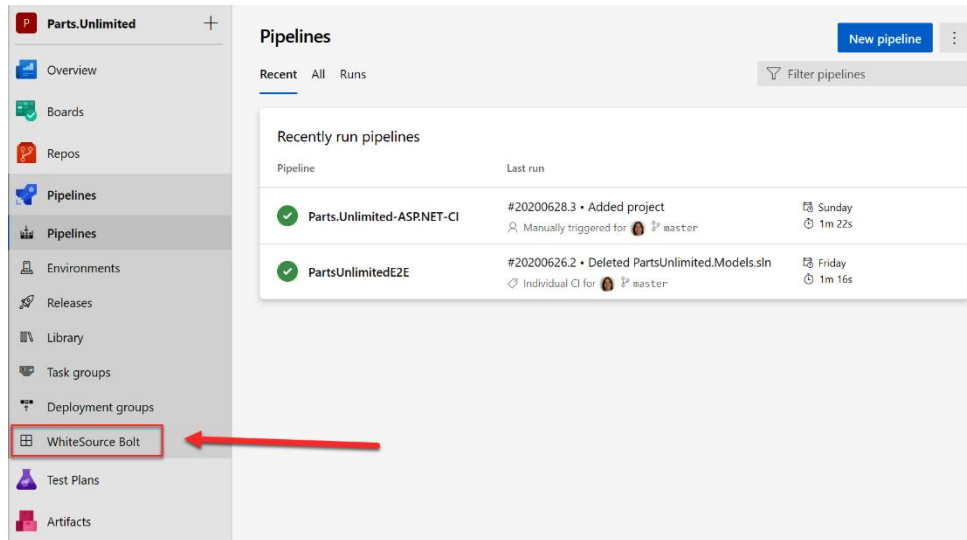
Select an Azure DevOps organization

PacktLearnDevOps

Install

For Azure DevOps Server

Download



You're almost there...

[FAQ](#) | [Documentation](#) | [Contact Support](#)  
[The Full WhiteSource Solution](#)

Want to get alerts on vulnerable open source components, outdated libraries and license compliance issues in your project?  
Complete this form and let's roll!

Work Email \*

Company Name

If you are a freelance developer, enter 'Self Employed'

Country \*

If you have a Benefits Code, please email [boltazure@whitesourcesoftware.com](mailto:boltazure@whitesourcesoftware.com) with your code and work email so that we can activate your benefit.

[Get Started](#)

Pipeline  
Build pipeline


Get sources  
PartsUnlimited.Models master

Agent job 1  
Run on agent

- Use NuGet 4.4.1  
NuGet tool installer
- NuGet restore  
NuGet
- Build solution  
Visual Studio build
- NuGet pack  
NuGet
- NuGet push  
NuGet
- Publish symbols path  
Index sources and publish symbols
- Publish Artifact  
Publish build artifacts

Add tasks | Refresh

whitesource bolt

 **WhiteSource Bolt**  
Detect & fix security vulnerabilities, problematic open source licenses.

Marketplace ^

Get sources  
PartsUnlimited.Models master

Agent job 1  
Run on agent

- Use NuGet 4.4.1  
NuGet tool installer
- NuGet restore  
NuGet
- Build solution  
Visual Studio build
- WhiteSource Bolt**  
WhiteSource Bolt
- NuGet pack  
NuGet
- NuGet push  
NuGet

Task version 20.\*

Display name \*  
WhiteSource Bolt

Root working directory

Advance settings

Control Options

Output Variables



## #20200630.1 Added project

on Parts.Unlimited-ASP.NET-CI [↗](#) Retained

Run new



Summary Code Coverage WhiteSource Bolt Build Report

[FAQ](#) | [Documentation](#) | [Contact Support](#)

### Security

#### Vulnerability Score



#### Vulnerable Libraries



#### Severity Distribution

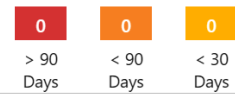
High 0

Med 0

Low 0

0 Vulnerable Libraries

#### Aging Vulnerable Libraries



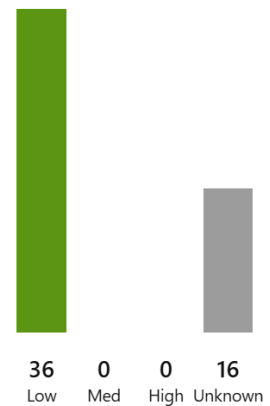
No security vulnerabilities found

### License Risks and Compliance

#### License Distribution (6)

License	Risk Level	Occurrences
■ Apache 2.0	Low	21
■ MIT	Low	15
■ Microsoft .NET Library	Unknown	10
■ Suspected MIT	Unknown	4
■ Microsoft ASP.NET MVC 3 Tools Update	Unknown	1
■ Microsoft ASP.NET Web Pages 2	Unknown	1

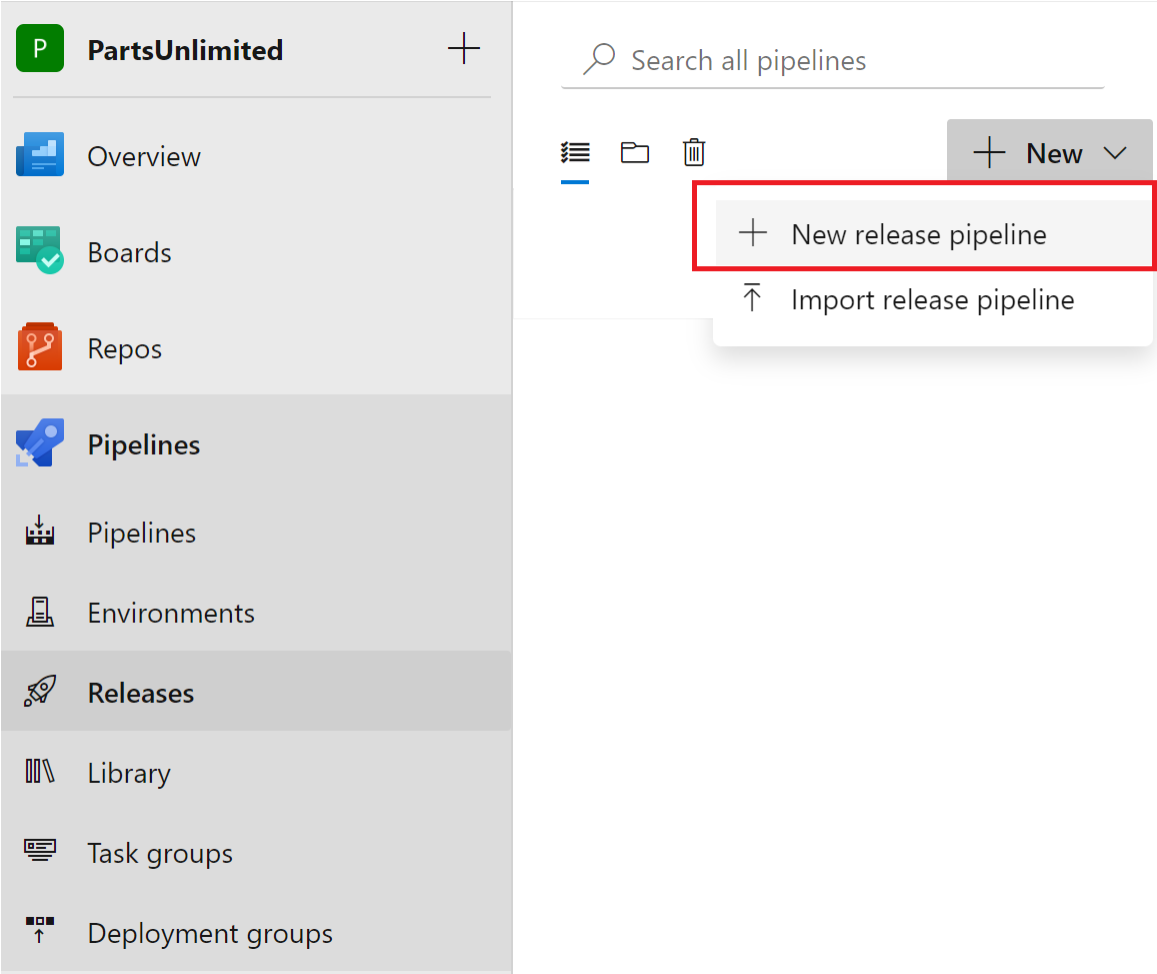
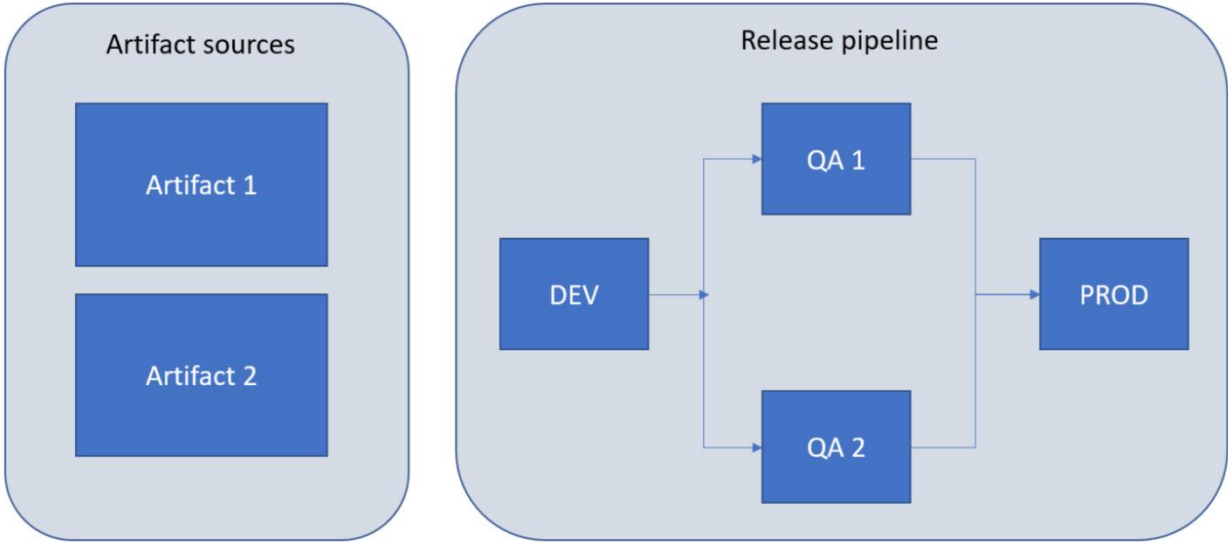
#### License Risk Distribution



Outdated Libraries (22) [show](#)

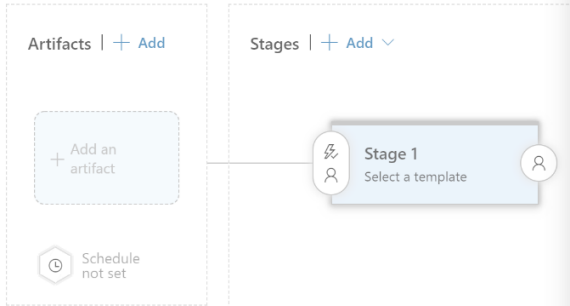
Inventory (53) [show](#)

# Chapter 8: Deploying Applications with Azure DevOps



All pipelines > New release pipeline

Pipeline Tasks Variables Retention Options History



Select a template

Or start with an [Empty job](#)

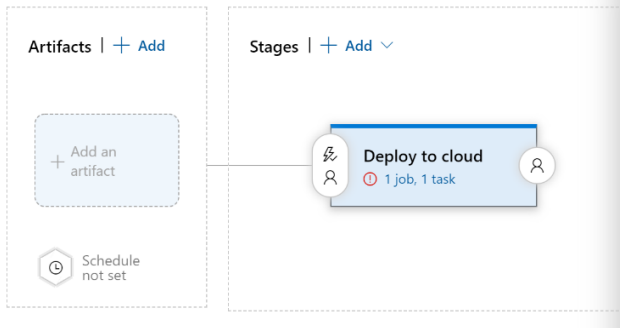
Featured

- Azure App Service deployment**  
Deploy your application to Azure App Service. Choose from Web App on Windows, Linux, containers, Function Apps, or WebJobs. Apply
- Deploy a Java app to Azure App Service**  
Deploy a Java application to an Azure Web App.
- Deploy a Node.js app to Azure App Service**  
Deploy a Node.js application to an Azure Web App.
- Deploy a PHP app to Azure App Service and Azure Database for MySQL**  
Deploy a PHP application to an Azure Web App and database to Azure Database for MySQL.
- Deploy a Python app to Azure App Service and Azure database for MySQL**  
Deploy a Python Django, Bottle, or Flask application to an Azure Web App and database to Azure Database for MySQL.
- Deploy to a Kubernetes cluster**  
Deploy, configure, update your containerized applications to a Kubernetes cluster.
- IIS website and SQL database deployment**  
Deployment Group: Deploy ASP.NET or ASP.NET Core web applications to an IIS Website and SQL database on physical or virtual machines (VM).

All pipelines > New release pipeline

Save Create release View releases ...

Pipeline Tasks Variables Retention Options History



Stage

Deploy to cloud

Delete Move ...

Properties

Name and owners of the stage

Stage name

Stage owner

**Deploy to cloud**  
Deployment process

**Run on agent**  
Run on agent

**Deploy Azure App Service**  
Azure App Service deploy

**Stage name**  
Deploy to cloud

**Parameters** | Unlink all

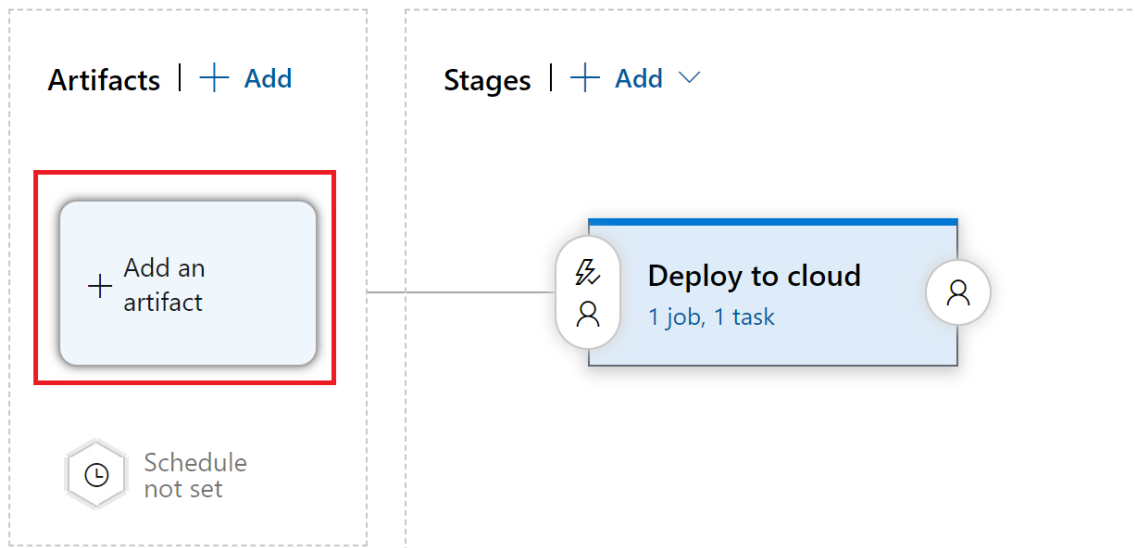
Azure subscription \* | Manage

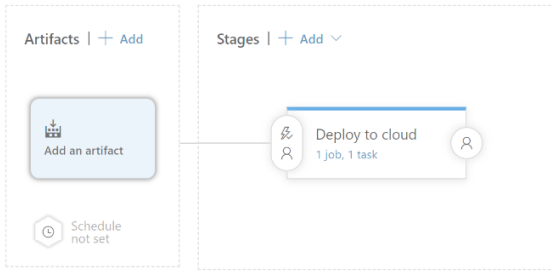
Visual Studio Enterprise

Scoped to subscription 'Visual Studio Enterprise'  
This field is linked to 1 setting in 'Deploy Azure App Service'

App type  
Web App on Windows

App service name \*  
partsunlimitedsdwebapp





### Add an artifact

Source type

Build  Azure Repos ...  GitHub  TFVC

5 more artifact types ▾

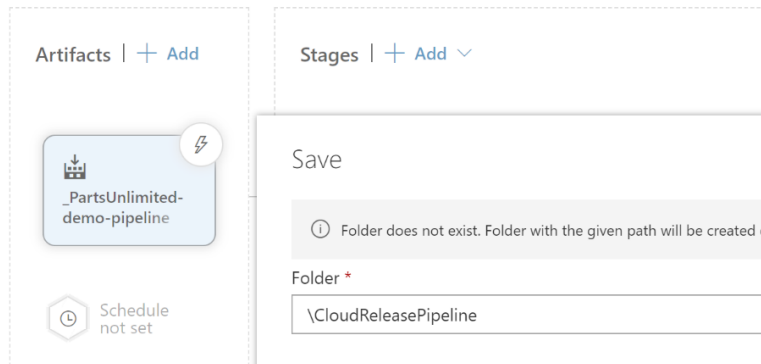
Project \* ⓘ

Source (build pipeline) \* ⓘ

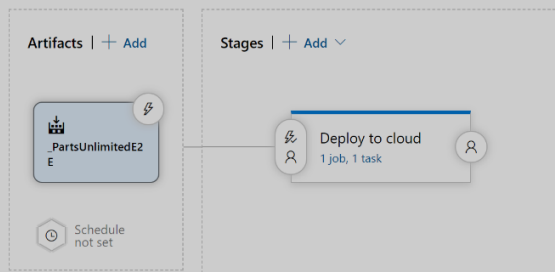
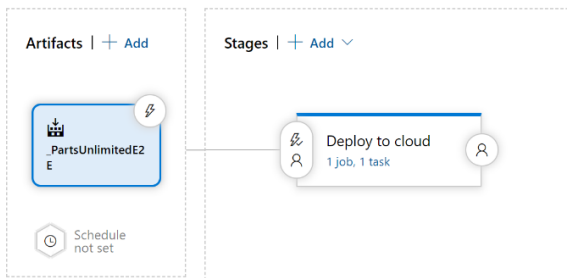
Default version \* ⓘ

Source alias \* ⓘ

ⓘ The artifacts published by each version will be available for deployment in release pipelines. The latest successful build of **PartsUnlimitedE2E** published the following artifacts: **drop**







### Create a new release

New release pipeline

#### Pipeline

Click on a stage to change its trigger from automated to manual.

Deploy to cloud

Stages for a trigger change from automated to manual.

#### Artifacts


Select the version for the artifact sources for this release


Source alias	Version
_PartsUnlimitedE2E	20200626.1

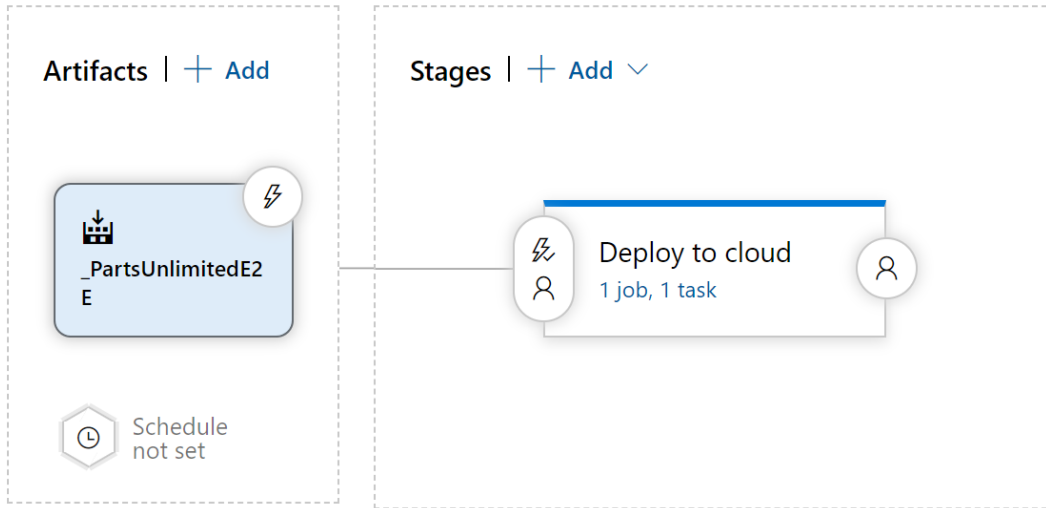
Release description

Create Cancel

All pipelines > CloudReleaseP... >  New release pipeline

 Release [Release-1](#) has been created

Pipeline Tasks  Variables Retention Options History



### Release

Manually triggered  
by Stefano Demiliani  
26/6/2020, 14:11

---

Artifacts

**\_PartsUnlimitedE2E**  
20200626.1  
 master

### Stages

Deploy to cloud  
✔ Succeeded  
on 26/6/2020, 14:13

↑ New release pipeline > Release-1 > Deploy to cloud ▾ ✔ Succeeded

← Pipeline Tasks Variables Logs Tests | ☁ Deploy ⏹ Cancel ↻ Refresh ↓ Download all logs ✎ Edit ▾ ⋮

#### Deployment process

Succeeded

- ✔ Run on agent Succeeded

#### Run on agent

Pool: Azure Pipelines · Agent: Hosted Agent

Started: 26/6/2020, 14:12:06  
⋮ 1m 15s


✔ Initialize job · succeeded	4s
✔ Download artifact - _PartsUnlimitedE2E - drop · succeeded	4s
✔ Deploy Azure App Service · succeeded	1m 5s
✔ Finalize Job · succeeded	<1s

Pipeline variables

Variable groups

Predefined variables [↗](#)

Filter by keywords Scope  X

Name	Value
HostingPlan	pule2e
ResourceGroupName	ASPDOTNET
ServerName	pule2e58a448a4
WebsiteName	pule2e58a448a4
WebsiteName 	pule2e58a448a4
WebsiteName	pule2e58a448a4

Dev  
Deployment process

Dev  
Run on agent

- Azure Deployment  
Azure resource group deployment
- Azure App Service Deploy  
Azure App Service deploy

Azure resource group deployment  [View YAML](#)  Remove


Task version 2.\*

Display name \*  
Azure Deployment

Azure Details ^

Azure subscription \*  | [Manage](#)  
Visual Studio Enterprise 

Scoped to subscription 'Visual Studio Enterprise'

Action \*   
Create or update resource group

Resource group \*   
\$(ResourceGroupName) 

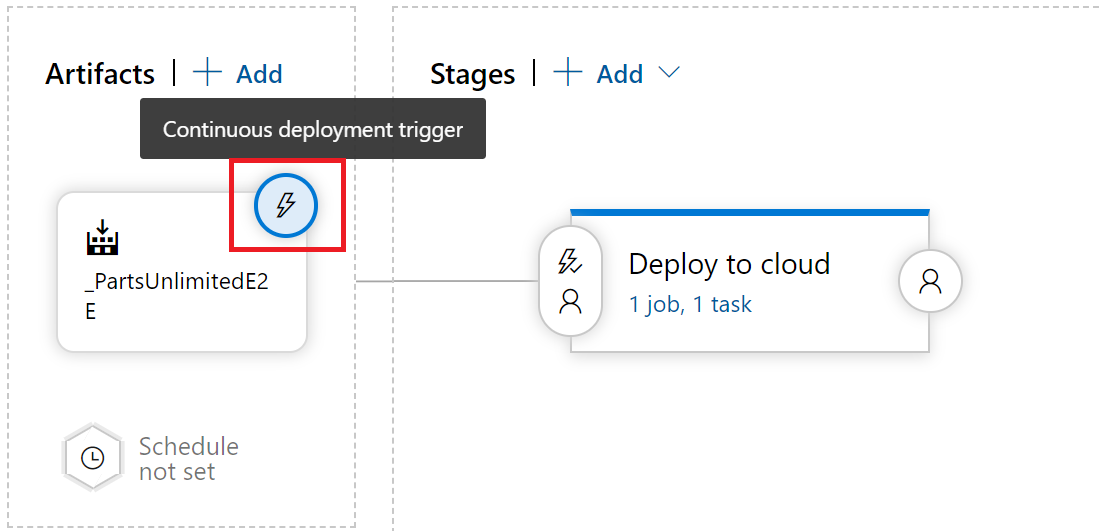
Location \*   
West Europe 

Template ^

Template location \*  
Linked artifact

All pipelines > CloudReleaseP... > New release pipeline

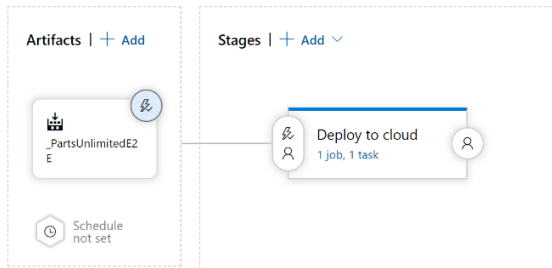
Pipeline Tasks Variables Retention Options History



All pipelines > CloudReleaseP... > New release pipeline

Save Create release View releases ...

Pipeline Tasks Variables Retention Options History



Continuous deployment trigger

Build: \_PartsUnlimitedE2E

Enabled  
Creates a release every time a new build is available.

Build branch filters

Type	Build branch	Build tags
Include	The build pipeline's default bra...	<input type="text"/>

+ Add

Pull request trigger

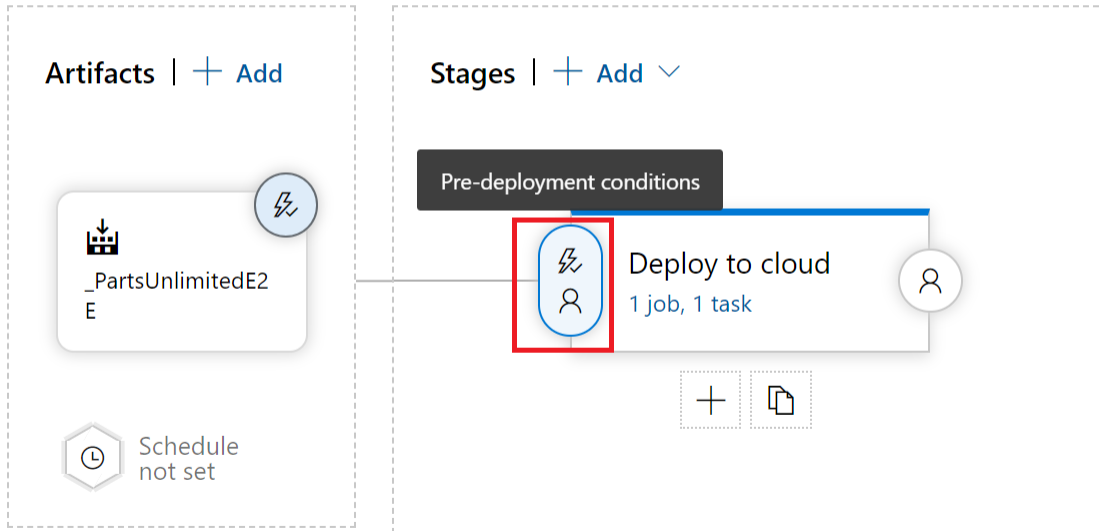
Build: \_PartsUnlimitedE2E

Disabled

Enabling this will create a release every time a selected artifact is available as part of a pull request workflow

All pipelines > CloudReleaseP... > New release pipeline

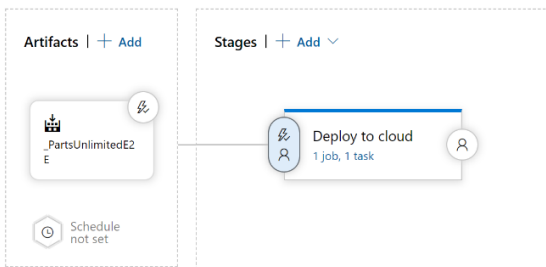
Pipeline Tasks Variables Retention Options History



All pipelines > CloudReleaseP... > New release pipeline

Save Create release View releases

Pipeline Tasks Variables Retention Options History



Pre-deployment conditions

Deploy to cloud

Triggers

Define the trigger that will start deployment to this stage

Select trigger

After release (selected) Manual only

Artifact filters Disabled

Schedule Disabled

Pull request deployment Disabled

Pre-deployment approvals Disabled

Select the users who can approve or reject deployments to this stage

Gates Disabled

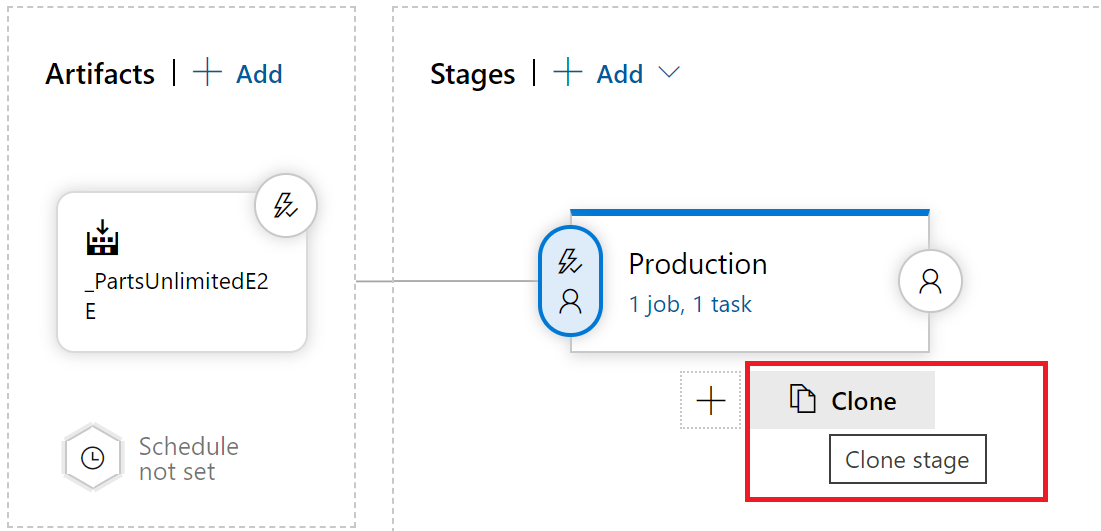
Define gates to evaluate before the deployment. Learn more

Deployment queue settings

Define behavior when multiple releases are queued for deployment

All pipelines > CloudReleaseP... > New release pipeline

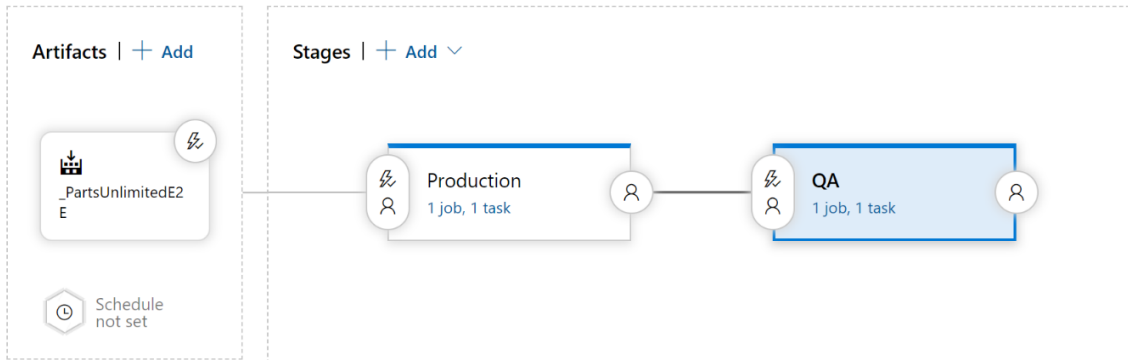
Pipeline Tasks Variables Retention Options History

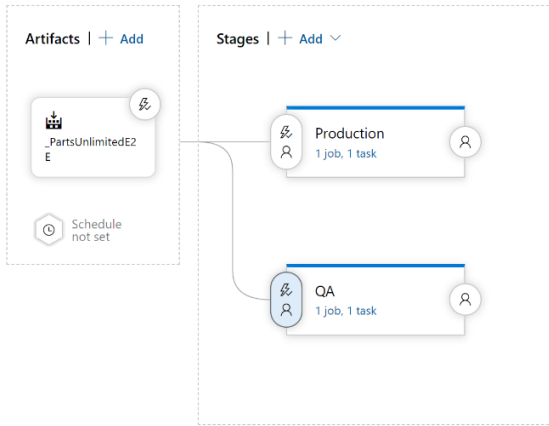


All pipelines > CloudReleaseP... > New release pipeline

Save

Pipeline Tasks Variables Retention Options History





### Pre-deployment conditions

QA

#### Triggers

Define the trigger that will start deployment to this stage

Select trigger

After release (selected)

After stage

Manual only

Artifact filters Disabled

Schedule Disabled

Pull request deployment Disabled

Pre-deployment approvals Disabled

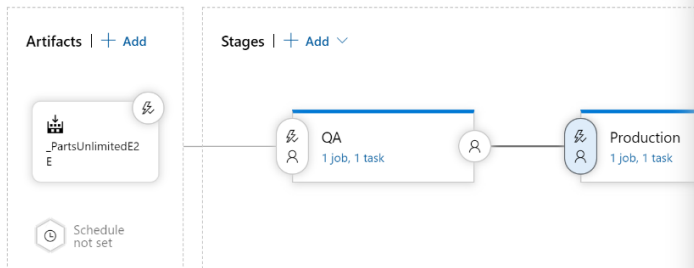
Select the users who can approve or reject deployments to this stage

Gates Disabled

Define gates to evaluate before the deployment. [Learn more](#)

#### Deployment queue settings

Define behavior when multiple releases are queued for deployment



### Pre-deployment conditions

Production

#### Triggers

Define the trigger that will start deployment to this stage

Select trigger

After release

After stage (selected)

Manual only

Stages

QA

Trigger even when the selected stages partially succeed

Artifact filters Disabled

Schedule Disabled

Pull request deployment Disabled

Pre-deployment approvals Disabled

Select the users who can approve or reject deployments to this stage

Gates Disabled

Define gates to evaluate before the deployment. [Learn more](#)



Pipeline Tasks Variables Retention Options History

QA  
Deployment p

Production

QA

Run on agent

Deploy Azure App Service  
Azure App Service deploy

Stage name  
QA

Parameters | Unlink all

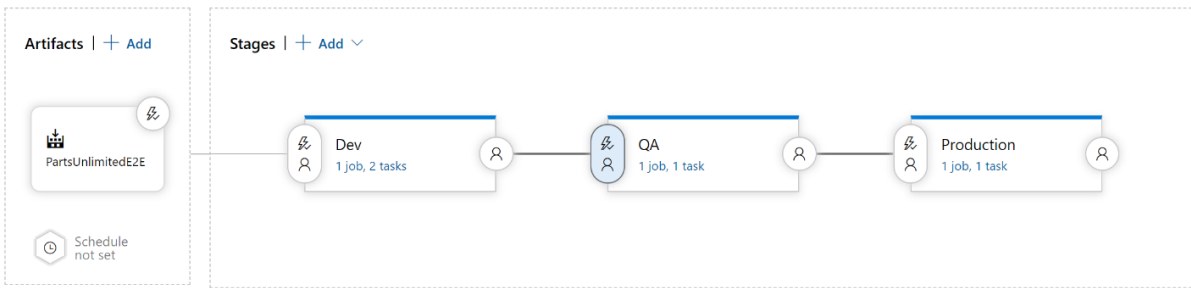
Azure subscription \* | Manage

Visual Studio Enterprise

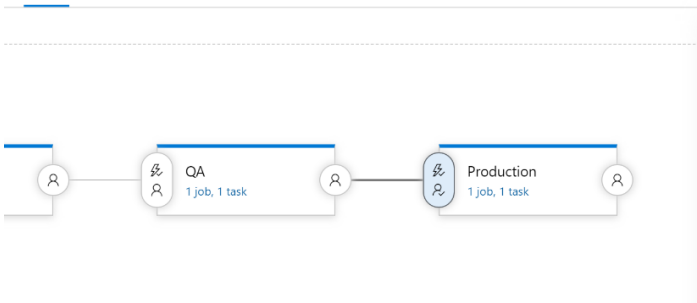
App type  
Web App on Windows

App service name \*  
partsunlimitedsdwebapp\_qa

Pipeline Tasks Variables Retention Options History



Pipeline Tasks Variables Retention Options History



### Pre-deployment conditions

Production

#### Triggers

Define the trigger that will start deployment to this stage

#### Pre-deployment approvals

Select the users who can approve or reject deployments to this stage

Enabled

Approvers

Stefano Demilani X Search users and groups for approvers

Timeout

30

Days

#### Approval policies

The user requesting a release or deployment should not approve it

Skip approval if the same approver approved the previous stage

#### Gates

Define gates to evaluate before the deployment.

Learn more

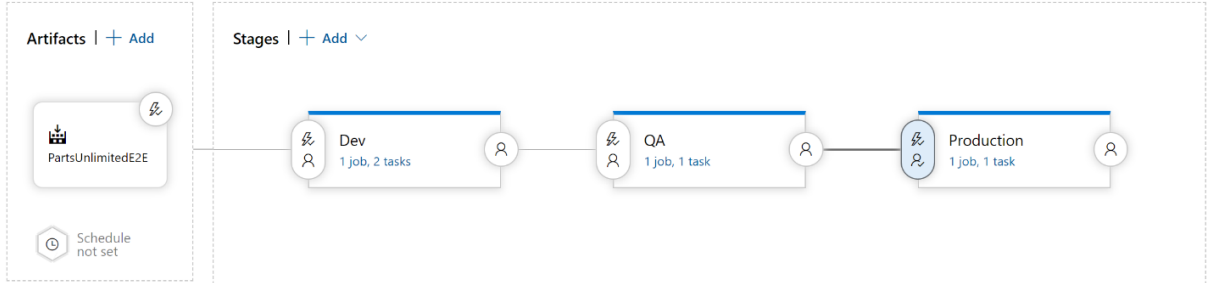
Disabled

#### Deployment queue settings

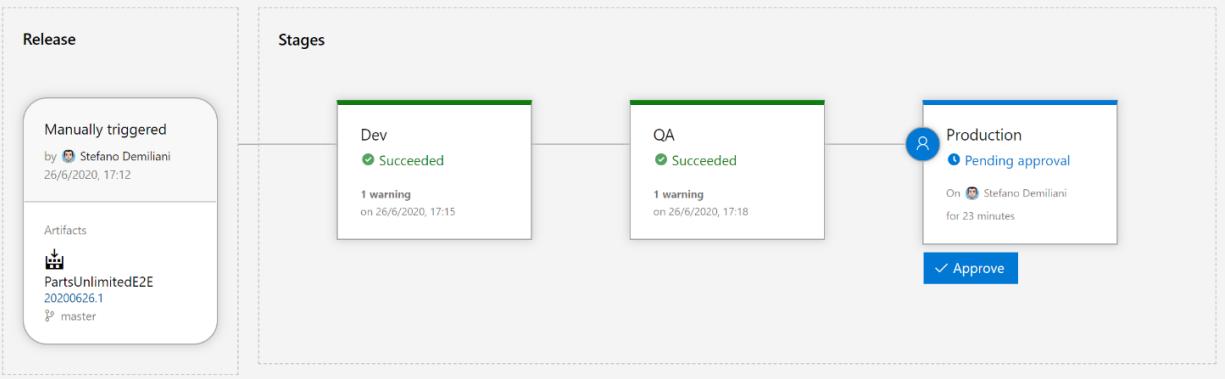
Define behavior when multiple releases are queued for deployment

Release Release-2 has been created

Pipeline Tasks Variables Retention Options History

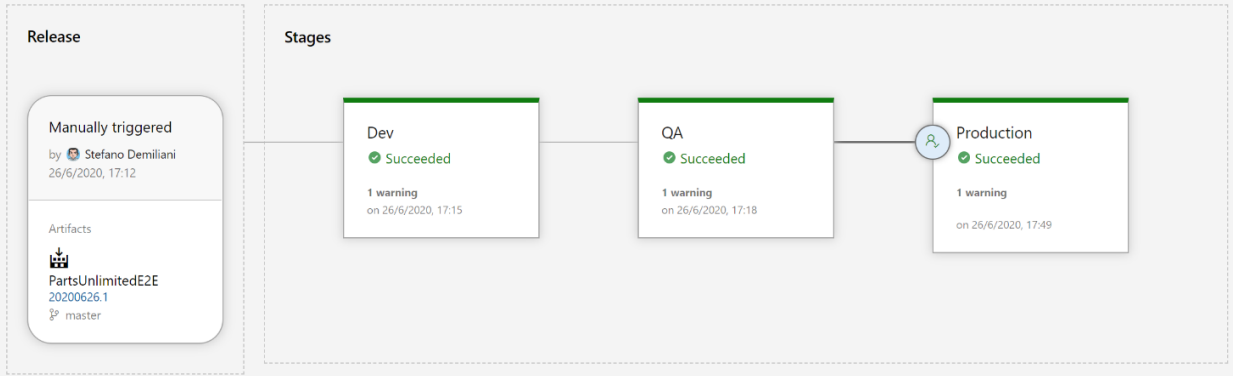


Pipeline Variables History + Deploy Cancel Approve multiple Refresh Edit ...



Pipeline Variables History + Deploy Cancel Approve multiple Refresh Edit ...

The modal shows the 'Production' stage details. It indicates 'Pre-deployment conditions' with 'Pending approval'. Under 'Approvers', it shows 'Stefano Demiliani' pending for 25 minutes with a 'Reassign' link. A comment box contains the text 'All is ok. Approved'. There are 'Approve' and 'Reject' buttons at the bottom. A 'Defer deployment for later' checkbox is also present.



New Arrival : Bugeye Headlights (2 Pack)

**NEW TIRES**

- IMPROVED FUEL EFFICIENCY
- SUPERIOR WET WEATHER BREAKING
- ADDED DURABILITY

- PartsUnlimited
- Overview
- Boards
  - Work items
  - Boards
  - Backlogs
  - Sprints
  - Queries**
  - Plans

## Queries

Favorites All **+ New query** ↑ Import Work Items

Title	Folder
-------	--------

My favorites

No favorites yet! Favorite a query ★ to quickly access it here.

Queries > My Queries

Run to see the query results.

Results Editor Charts Run query + New Save query Revert changes Column options Save items Email query Copy query URL ...

Type of query Flat list of work items Query across projects

Filters for top level work items

And/Or	Field*	Operator	Value
<input type="checkbox"/>	Work Item Type	=	Bug
<input type="checkbox"/> And	State	=	Active

Queries > My Queries

Results Editor Charts Run query + New Save query Revert changes Column options Save items Email query

Type of query Flat list of work items

Filters for top level work items

And/Or	Field*	Operator	Value
<input type="checkbox"/>	Work Item Type	=	Bug
<input type="checkbox"/> And	State	=	Active

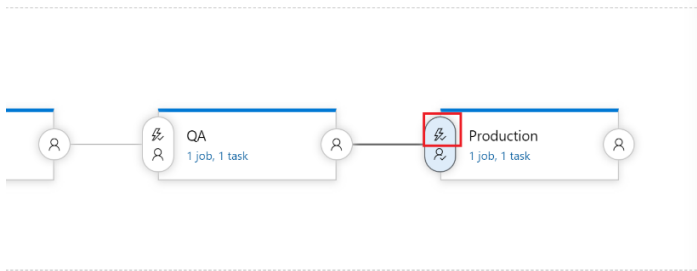
New query

Name \*

Folder \*

OK Cancel

ID	Work Item...	Title	Assigned To	State	Tags
----	--------------	-------	-------------	-------	------



### Pre-deployment conditions

Production

#### Triggers

Define the trigger that will start deployment to this stage

#### Pre-deployment approvals

Select the users who can approve or reject deployments to this stage

Enabled

#### Gates

Define gates to evaluate before the deployment.

[Learn more](#)

Enabled

The delay before evaluation

5

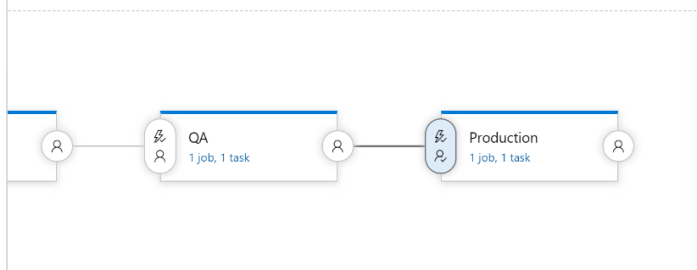
Minutes

Deployment gates

+ Add

#### Deployment queue settings

Define behavior when multiple releases are queued for deployment



### Pre-deployment conditions

Production

#### Triggers

Define the trigger that will start deployment to this stage

#### Pre-deployment approvals

Select the users who can approve or reject deployments to this stage

Enabled

#### Gates

Define gates to evaluate before the deployment.

[Learn more](#)

Enabled

The delay before evaluation

5

Minutes

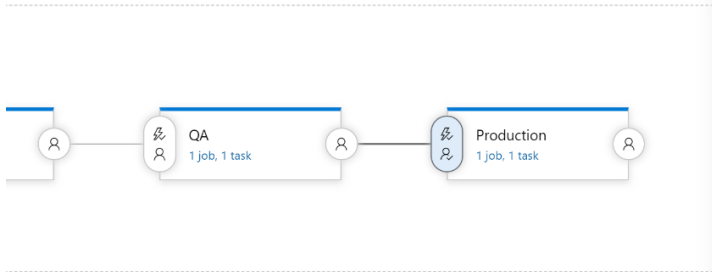
Deployment gates

+ Add

#### Deployment queue settings

Define behavior when multiple releases are queued for deployment

- Check Azure Policy compliance  
Security and compliance assessment for Azure Policy
- Invoke Azure Function  
Invoke an Azure Function
- Invoke REST API  
Invoke a REST API as a part of your pipeline.
- Query Azure Monitor alerts  
[Choose the configured Azure Monitor rules for active alerts](#)
- Query work items  
Execute a work item query and check the number of items returned



Pre-deployment approvals  Enabled  
Select the users who can approve or reject deployments to this stage

Gates  Enabled  
Define gates to evaluate before the deployment.  
[Learn more](#)

The delay before evaluation ⓘ  
 Minutes ▾

Deployment gates ⓘ [+ Add ▾](#)

Query for Active bugs  Enabled   
Query work items ⓘ  
Task version  ▾  
Display name \*

Query \* ⓘ  
 ▾  
Upper threshold \* ⓘ

Advanced ▾  
Output Variables ▾  
Evaluation options ▾

Deployment queue settings ▾  
Define behavior when multiple releases are queued for deployment

- PartsUnlimited** +
- Overview
- Boards
- Repos
- Pipelines**
- Pipelines
- Environments
- Releases
- Library
- Task groups
- Deployment groups**
- Test Plans
- Artifacts

## Deployment groups

**Groups** Available pools 1 | [+ New](#) [Security](#) [Help](#)



### Add a deployment group

Define a logical group of target machines for parallel deployment.

[Add a deployment group](#)

[Learn more about deployment groups](#)

All pipelines > PartsUnlimitedE2E Save Create release ...

Pipeline **Tasks** Variables Retention Options History

QA  
Deployment process Remove

QA  
Run on agent

Azure App Service Deploy  
Azure App Service deploy

Agent job ⓘ

- Add an agent job
- Add a deployment group job**
- Add an agentless job

[Learn more about jobs](#)

Agent pool ⓘ | [Pool information](#) | [Manage](#)

Hosted ▼ ↻

Demands ⓘ

Azure DevOps demiliani / PartsUnlimited / Pipelines / Environments

PartsUnlimited +

- Overview
- Boards
- Repos
- Pipelines
- Environments**
- Releases
- Library
- Task groups
- Deployment groups
- Test Plans

**Environments**

Environment	Status
nuget-org	Never deployed

**New environment** ✕

Name ⓘ

Description ⓘ

Resource

- None**  
You can add resources later
- Kubernetes**  
Add Kubernetes namespace
- Virtual machines**  
Manage virtual machines

# Chapter 9: Integrating Azure DevOps with GitHub

microsoft / PartsUnlimitedE2E

Watch 7 Star 11 Fork 642

Code Issues 18 Pull requests 54 Actions Projects Wiki Security Insights

master 3 branches 0 tags Go to file Add file Code About

iamsrivatsa adding project b5eaa59 on Dec 13, 2017 4 commits

PartsUnlimited-aspnet45	adding project	3 years ago
.gitignore	Initial commit	4 years ago
LICENSE	Initial commit	4 years ago
README.md	Initial commit	4 years ago

Code for the Parts Unlimited - VSE2017 Demo

Readme MIT License

Releases No releases published

### Create new project

Project name \*

Description

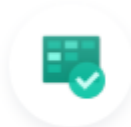
Visibility

Public  
Anyone on the internet can view the project. Certain features like TFVC are not supported.

Private  
Only people you give access to will be able to view this project.

Advanced

Cancel Create



## Azure Boards

Connects Azure Boards with GitHub to plan, track, and discuss work across your teams



## Azure Pipelines

Continuously build, test, and deploy to any platform and cloud



- Pipelines
- Pipelines
- Environments
- Releases
- Library
- Task groups
- Deployment groups
- Test Plans
- Artifacts



## Create your first Pipeline

Automate your build and release processes using our wizard, and go from code to cloud-hosted within minutes.

Create Pipeline

PacktLearnAzureDevOps / Parts Unlimited E2E - GitHu... / Pipelines

Connect Select Configure Review

New pipeline

### Where is your code?

Azure Repos Git **YAML**  
Free private Git repositories, pull requests, and code search

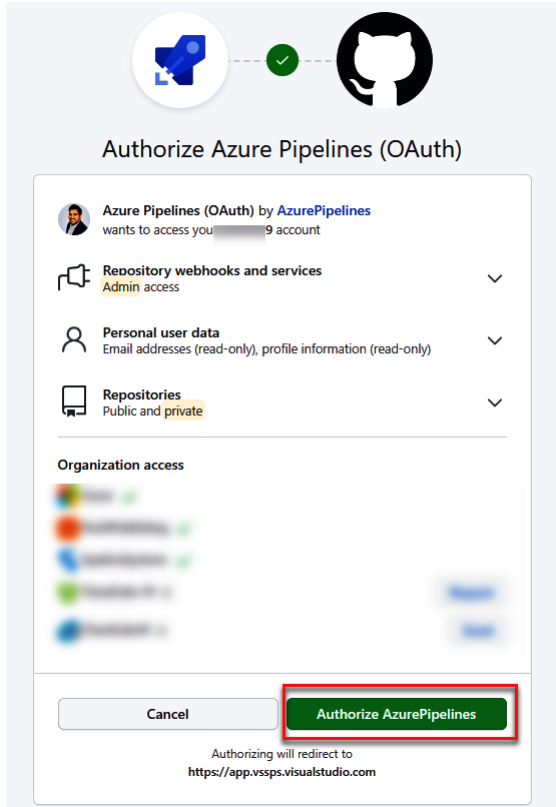
Bitbucket Cloud **YAML**  
Hosted by Atlassian

GitHub **YAML**  
Home to the world's largest community of developers

GitHub Enterprise Server **YAML**  
The self-hosted version of GitHub Enterprise

Other Git  
Any generic Git repository

Subversion  
Centralized version control by Apache



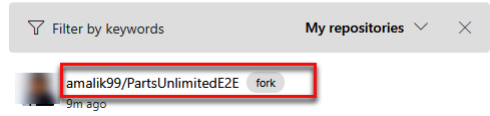
The image shows an OAuth authorization dialog for Azure Pipelines. At the top, there are icons for Azure Pipelines and GitHub, connected by a dashed line with a green checkmark. Below this, the title is "Authorize Azure Pipelines (OAuth)". The main content area lists the permissions being requested:

- Azure Pipelines (OAuth) by AzurePipelines** wants to access your account
- Repository webhooks and services** (Admin access)
- Personal user data** (Email addresses (read-only), profile information (read-only))
- Repositories** (Public and private)


Below these is a section for "Organization access" with a list of organizations and their access levels. At the bottom, there are two buttons: "Cancel" and "Authorize AzurePipelines". The "Authorize AzurePipelines" button is highlighted with a red border. Below the buttons, it says "Authorizing will redirect to <https://app.vssps.visualstudio.com>".

New pipeline


## Select a repository



The image shows a repository selection interface. At the top, there is a search bar with a filter icon and the text "Filter by keywords". To the right of the search bar, there is a dropdown menu labeled "My repositories" with a close icon. Below the search bar, there is a list of repositories. The first repository is "amalik99/PartsUnlimitedE2E" with a "fork" button next to it. This repository name and the "fork" button are highlighted with a red border. Below the repository name, there is a timestamp "9m ago".



## Approve & Install Azure Pipelines


Approve & Install on your personal account Amit Malik 

suggested installation of this GitHub App now

All repositories  
This applies to all current and future repositories.

Only select repositories

Selected 1 repository.

 99/PartsUnlimitedE2E suggested X

...with these permissions:

- Write access to code
- Read access to metadata
- Read and write access to checks, commit statuses, deployments, issues, and pull requests

Approve & Install









Reject

Next, you'll be directed to the GitHub App's site to complete setup.

✓ Connect    ✓ Select    **Configure**    Review

New pipeline

## Configure your pipeline

-  **ASP.NET**  
Build and test ASP.NET projects.
-  **ASP.NET Core (.NET Framework)**  
Build and test ASP.NET Core projects targeting the full .NET Framework.
-  **.NET Desktop**  
Build and run tests for .NET Desktop or Windows classic desktop solutions.
-  **Universal Windows Platform**  
Build a Universal Windows Platform project using Visual Studio.
-  **Xamarin.Android**  
Build a Xamarin.Android project.
-  **Xamarin.iOS**  
Build a Xamarin.iOS project.
-  **Starter pipeline**  
Start with a minimal pipeline that you can customize to build and deploy your code.
-  **Existing Azure Pipelines YAML file**  
Select an Azure Pipelines YAML file in any branch of the repository.

✓ Connect ✓ Select ✓ Configure **Review**

New pipeline

## Review your pipeline YAML

Variables Save and run

amalik99/PartsUnlimitedE2E / azure-pipelines.yml \* Show assistant

```

1 # ASP.NET
2 # Build and test ASP.NET projects.
3 # Add steps that publish symbols, save build artifacts, deploy, and more:
4 # https://docs.microsoft.com/azure/devops/pipelines/apps/aspnet/build-aspnet-4
5
6 trigger:
7   - master
8
9 pool:
10  - vmImage: 'vs2017-win2016'
11
12 variables:
13   - solution: '**/*.sln'
14   - buildPlatform: 'Any CPU'
15   - buildConfiguration: 'Release'
16
17 steps:
18   - task: NuGetToolInstaller@1
19

```

### Save and run

Saving will commit azure-pipelines.yml to the repository.

Commit message

Set up CI with Azure Pipelines

Optional extended description

Add an optional description...

Commit directly to the master branch  
 Create a new branch for this commit

Save and run

#20200726.1 Set up CI with Azure Pipelines

on amalik99/PartsUnlimitedE2E Cancel ⋮

Summary

Triggered by amalik99 View change

Repository and version	Time started and elapsed	Related	Tests and coverage
amalik99/PartsUnlimitedE2E master 6f01d52	Just now 24s	0 work items 0 artifacts	Get started

Jobs	Status	Duration
Job	Running	21s

amalik99 / PartsUnlimitedE2E  
 forked from microsoft/PartsUnlimitedE2E

<> Code Pull requests Actions Projects Wiki Security Insights Settings

master 3 branches 0 tags Go to file Add file Code

This branch is 1 commit ahead of microsoft:master. Pull request Compare

amalik99	Set up CI with Azure Pipelines	6f01d52	minute ago	5 commits
PartsUnlimited-aspnet45	adding project			3 years ago
.gitignore	Initial commit			4 years ago
LICENSE	Initial commit			4 years ago
README.md	Initial commit			4 years ago
azure-pipelines.yml	Set up CI with Azure Pipelines			1 minute ago

README.md

## Contributing

This project has adopted the [Microsoft Open Source Code of Conduct](#). For more information see the [Code of Conduct FAQ](#) or contact [opencode@microsoft.com](mailto:opencode@microsoft.com) with any additional questions or comments.

Set up CI with Azure Pipelines

master 6f01d52

Azure Pipelines / amalik99.PartsUnlimitedE2E  
 succeeded 3 minutes ago in 1m 3s

### Build #20200726.1 succeeded

0 errors / 1 warnings

DETAILS

Tests

- Failed: 0 (0.00%, 0 new, 0 recurring)
- Passed: 14 (87.50%)
- Other: 2 (12.50%)
- Total: 16

View more details on Azure Pipelines

3 lines (2 sloc) | 352 Bytes Raw Blame

## Contributing

This project has adopted the [Microsoft Open Source Code of Conduct](#). For more information see the [Code of Conduct FAQ](#) or contact [opencode@microsoft.com](mailto:opencode@microsoft.com) with any additional questions or comments.

### Commit changes

Test PR

Test PR to try out the Azure Pipeline CI flow.

Commit directly to the master branch.

Create a new branch for this commit and start a pull request. [Learn more about pull requests.](#)

amalik99-patch-1

Propose changes Cancel

## Open a pull request

The change you just made was written to a new branch named `amalik99-patch-1`. Create a pull request below to propose these changes.

base: master ← compare: amalik99-patch-1 ✓ Able to merge. These branches can be automatically merged.

Test PR

Write Preview H B I ≡ <> 🔗 ≡ ≡ ≡ ☑ @ ↻ ↶

Test PR to try out the Azure Pipeline CI flow.

Attach files by dragging & dropping, selecting or pasting them.

Create pull request

## Test PR #1

Open amalik99 wants to merge 1 commit into master from amalik99-patch-1

Conversation 0 Commits 1 Checks 0 Files changed 1

amalik99 commented 1 minute ago Owner 😊 ...

Test PR to try out the Azure Pipeline CI flow.

Test PR Verified 9b363ad

Add more commits by pushing to the `amalik99-patch-1` branch on `amalik99/PartsUnlimitedE2E`.

Some checks haven't completed yet Hide all checks  
1 in progress check

amalik99.PartsUnlimitedE2E In progress — This check has started... Details

This branch has no conflicts with the base branch  
Merging can be performed automatically.

Merge pull request You can also open this in GitHub Desktop or view command line instructions.

Write Preview H B I ≡ <> 🔗 ≡ ≡ ≡ ☑ @ ↻ ↶

Leave a comment

Attach files by dragging & dropping, selecting or pasting them.

Close pull request Comment

Edit Run pipeline ⋮

- Manage security
- Rename/move
- Status badge
- Settings
- Delete
- Scheduled runs

## Status badge

Azure Pipelines succeeded

Branch  
master

Scope  
Pipeline

Image URL  
[https://dev.azure.com/PacktLearnAzureDevOps/Parts%20Unlimited%20E2E%20-%20GitH](https://dev.azure.com/PacktLearnAzureDevOps/Parts%20Unlimited%20E2E%20-%20GitHub%20Integration/_apis/build/status/amalikh99.PartsUnlimitedE2E?branchName=master)

Sample markdown  
[[Build Status]]([https://dev.azure.com/PacktLearnAzureDevOps/Parts%20Unlimited%20E2E%20-%20GitH](https://dev.azure.com/PacktLearnAzureDevOps/Parts%20Unlimited%20E2E%20-%20GitHub%20Integration/_apis/build/status/amalikh99.PartsUnlimitedE2E?branchName=master))

PacktLearnAzureDevOps / Parts Unlimited E2E - GitHub... / Settings / Settings

### Project Settings

Parts Unlimited E2E - GitHub Int...

**General**

- Overview
- Teams
- Permissions
- Notifications
- Service hooks
- Dashboards

**Boards**

- Project configuration
- Team configuration
- GitHub connections

**Repos**

- Repositories

**Pipelines**

- Agent pools
- Parallel jobs
- Settings**
- Test management
- Release retention
- Service connections
- XAML build services

### Settings

**Retention policy**

The artifacts, symbols and attachments retention setting is being ignored because the runs retention setting is evaluated first.

Days to keep artifacts, symbols and attachments	30
Days to keep runs	30
Days to keep pull request runs	10
Number of recent runs to retain per pipeline	3

Learn more about run retention

**General**

- Disable anonymous access to badges
- Limit variables that can be set at queue time
- Limit job authorization scope to current project for non-release pipelines
- Publish metadata from pipelines (preview)
- Limit job authorization scope to referenced Azure DevOps repositories

PartsUnlimitedE2E / README.md Cancel

```
<> Edit file Preview changes Spaces 2 Soft wrap  
1 # Contributing  
2  
3 This project has adopted the [Microsoft Open Source Code of Conduct](https://opensource.microsoft.com/codeofconduct/). For more information see the [Code of Conduct FAQ](https://opensource.microsoft.com/codeofconduct/faq/) or contact [opencode@microsoft.com](mailto:opencode@microsoft.com) with any additional questions or comments.  
4  
5 This is a sample Commit.  
6  
7 [[Build Status]](https://dev.azure.com/PacktLearnAzureDevOps/Parts%20Unlimited%20E2E%20-%20GitHub%20Integration/\_apis/build/status/amalikh99.PartsUnlimitedE2E?branchName=master)  
8 (https://dev.azure.com/PacktLearnAzureDevOps/Parts%20Unlimited%20E2E%20-%20GitHub%20Integration/\_build/latest?definitionId=88&branchName=master)
```

master PartsUnlimitedE2E / README.md Go to file ...

amalik99 Update README.md Latest commit ee7dee1 6 minutes ago History


2 contributors

7 lines (4 sloc) | 705 Bytes Raw Blame 📄 ✎ 🗑️

## Contributing

This project has adopted the [Microsoft Open Source Code of Conduct](#). For more information see the [Code of Conduct FAQ](#) or contact [opencode@microsoft.com](mailto:opencode@microsoft.com) with any additional questions or comments.

This is a sample Commit.

 Azure Pipelines succeeded


PacktLearnAzureDevOps / Parts Unlimited E2E - GitHub... / Settings / GitHub connections Search

### Project Settings

Parts Unlimited E2E - GitHub Int...

- General
  - Overview
  - Teams
  - Permissions
  - Notifications
  - Service hooks
  - Dashboards
- Boards
  - Project configuration
  - Team configuration
  - GitHub connections**
- Repos
  - Repositories
- Pipelines
  - Agent pools
  - Parallel jobs
  - Settings
  - Test management
  - Release retention
  - Service connections
  - XAML build services
- Test
  - Retention

### GitHub connections



#### Connect GitHub with Azure Boards

Link commits and pull requests to work items, and see the status of your development from within Azure Boards.

[Connect your GitHub account](#)

Alternative connection options

- Personal Access Token
- GitHub Enterprise Server



## ← Add GitHub repositories ×

Add the GitHub repositories you want to use with your Azure Boards.

parts ×

Viewing 2 of 49, 1 selected

- fork
- 9/PartsUnlimitedE2E fork

Save

Approve, Install, & Authorize on your personal account ✖

suggested installation of this GitHub App 1 minute ago

All repositories  
This applies to all current and future repositories.

Only select repositories

Select repositories ▾

Selected 1 repository.

- PartsUnlimitedE2E suggested ×



- ...with these permissions:
- ✓ Write access to code
  - ✓ Read access to metadata
  - ✓ Read and write access to commit statuses, content references, deployments, issues, pull requests, and repository projects
  - ✓ Write access to attach content to the following external domains:
    - dev.azure.com
    - visualstudio.com

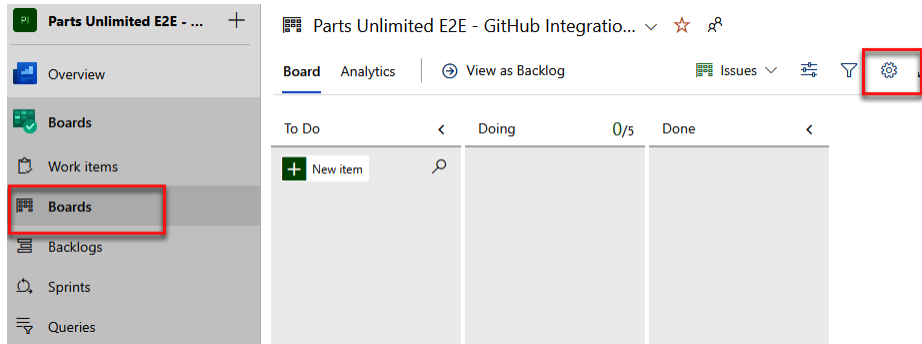
Approve, Install, & Authorize

Reject

Next: you'll be redirected to <https://app.vssps.visualstudio.com/oauth2/receive>

## GitHub connections | [+ New connection](#) [Help](#)

Connection	Authentication type	Repositories	Created by
 GitHub	GitHub App	<span style="border: 1px solid gray; border-radius: 50%; padding: 2px;">/PartsUnlimitedE2E</span>	 amymalik



## Settings

**Cards**

- Fields
- Styles
- Tag colors
- Annotations
- Tests

**Board**

- Columns
- Swimlanes
- Card reordering
- Status badge \***

**General**

- Backlogs
- Working days

**Status badge**

Status badge

Summarize your board in a badge that can be included in a ReadMe file or on a dashboard.

Allow anonymous users to access the status badge.

Configure the details for a badge and copy the resulting URL or Markdown to display the badge with these settings.

Show "In Progress" columns only

Include all columns

**Preview**

Azure Boards: To Do 0 | Doing 0 | Done 0

Sample Markdown

```
[[Board Status]](https://dev.azure.com/PacktLearnAzureDevOps/8fe21744-2fef-4e97-9a3d-2665c5131eaf/d2e39666-a747-4186-a2d3-7147a65b26c)
```

Image URL

```
https://dev.azure.com/PacktLearnAzureDevOps/8fe21744-2fef-4e97-9a3d-2665c5131eaf/d2e39666-a747-4186-a2d3-7147a65b26c1/_apis/work/bc
```

Note, badge settings are not saved and can be reconfigured for each badge.

**Save and close** Cancel

9 lines (5 sloc) | 1.06 KB

Raw Blame

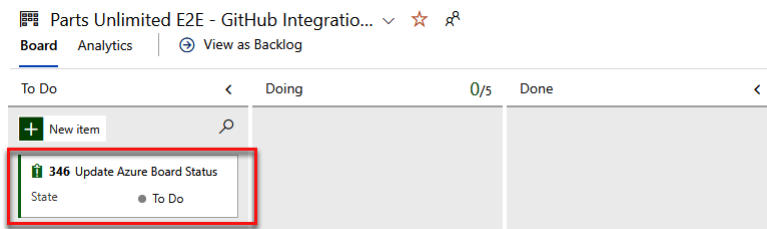
## Contributing

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This is a sample Commit.

Azure Pipelines: succeeded

Azure Boards: To Do 0 | Doing 0 | Done 0



ISSUE 346

## 346 Update Azure Board Status

Unassigned 0 comments Add tag Save & Close Follow

State: **To Do** Area: Parts Unlimited E2E - GitHub Integration Updated by amymalik: 2m ago

Reason: Added to backlog Iteration: Parts Unlimited E2E - GitHub Integration\Sprint 1 Details

**Description**  
Click to add Description

**Discussion**  
Add a comment. Use # to link a work item, ! to link a pull request, or @ to mention a person.

**Planning**  
Priority: 2  
Effort:

**Deployment**  
To track releases associated with this work item, go to Releases and turn on deployment status reporting for Boards in your pipeline's Options menu. Learn more about deployment status reporting

**Development**  
+ Add link  
Link a GitHub commit or pull request to see the status of your development. Learn more  
Link an Azure Repos commit, pull request or branch to see the status of your development. You can also create a branch to get started.

**Related Work**  
+ Add link  
Add an existing work item as a parent

### Add link

You are adding a link from:

346 Update Azure Board Status  
Updated 3 minutes ago, To Do

Link type: **GitHub Commit**

[Learn more about GitHub integration with Azure Boards.](#)

GitHub commit url \*  
https://github.com/amalik99/PartsUnlimitedE2E/commit/2f6209ff79d6c9c1ee75164f...

Comment

**OK** Cancel

ISSUE 346\*

## 346 Update Azure Board Status

Unassigned 0 comments Add tag Save & Close Follow

State: **Done** Area: Parts Unlimited E2E - GitHub Integration Updated by amymalik: 4m ago

Reason: Completed Iteration: Parts Unlimited E2E - GitHub Integration\Sprint 1 Details (1)

**Description**  
Click to add Description

**Discussion**  
Add a comment. Use # to link a work item, ! to link a pull request, or @ to mention a person.

**Planning**  
Priority: 2  
Effort:

**Deployment**  
To track releases associated with this work item, go to Releases and turn on deployment status reporting for Boards in your pipeline's Options menu. Learn more about deployment status reporting

**Development**  
+ Add link  
2f6209f Update README.md  
Updated 7 minutes ago

**Related Work**  
+ Add link  
Add an existing work item as a parent

Azure DevOps

PacktLearnAzureDevOps / Parts Unlimited E2E - GitHub... / Boards / Boards

Parts Unlimited E2E - ...

Overview

Boards

Work items

Boards

Backlogs

Sprints

Queries

Repos

Pipelines

Test Plans

Artifacts

Parts Unlimited E2E - GitHub Integratio... ☆ 🔍

Board Analytics | View as Backlog

To Do < Doing 0/5 Done

+ New item 🔍

346 Update Azure Board Status

Unassigned

State ● Done

1

Update README.md

Updated 9 minutes ago

Parts Unlimited E2E - ...

Overview

Boards

Work items

Boards

Backlogs

Sprints

Queries

Parts Unlimited E2E - GitHub Integratio... ☆ 🔍

Board Analytics | View as Backlog

To Do < Doing

+ New item 🔍

347 Update Website Info

State ● To Do

## Open a pull request

The change you just made was written to a new branch named `amalik99-patch-3`. Create a pull request below to propose these changes.

base: master ← compare: amalik99-patch-3 ✓ Able to merge. These branches can be automatically merged.

Adding Information

Write Preview H B I 🔍 < > 🔗 ⋮ ⋮ ☑ @ 📎 ↶

Fixed AB#347

Attach files by dragging & dropping, selecting or pasting them.

Create pull request

Remember, contributions to this repository should follow our GitHub Community Guidelines.

## Adding Information #3

Merged amalik99 merged 1 commit into master from amalik99-patch-3 now

Conversation 0 Commits 1 Checks 0 Files changed 1

amalik99 commented 13 seconds ago • edited by azure-boards bot Owner

Fixed AB#347

Update README.md Verified 2efe9c9

amalik99 merged commit 92234ff into master now Revert

Sample Commit Message	Action
Fixed AB#123	Links and transitions the work item to the "done" state.
Adds a new feature, fixes AB#123.	Links and transitions the work item to the "done" state.
Fixes AB#123, AB#124, and AB#126	Links to Azure Boards work items 123, 124, and 126. Transitions only the first item, 123, to the "done" state.
Fixes AB#123, Fixes AB#124, and Fixes AB#125	Links to Azure Boards work items 123, 124, and 126. Transitions all items to the "done" state.
Fixing multiple bugs: issue #123 and user story AB#234	Links to GitHub issue 123 and Azure Boards work item 234. No transitions.

# Chapter 10: Using Test Plans with Azure DevOps

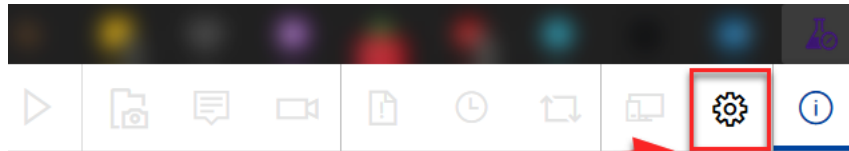
The screenshot shows the Visual Studio Marketplace search results for 'Test & Feedback'. The search bar at the top contains 'Test & Feedback'. Below the search bar, there are 182 results. The first result, 'Test & Feedback' by Microsoft, is highlighted with a red box. A red arrow points from the search bar to this result. The result card for 'Test & Feedback' shows the Microsoft logo, the extension name, the number of clicks (131K), a description, a star rating of 4.5, and the price 'FREE'. Other visible results include 'Test Case Explorer', 'Pester Test Runner', 'Release Web Smoke', 'SoapUI Test Task', 'View Latest Test Resu', 'SSL Labs Test', 'Offline Test Execution', 'Test-Analysis', 'Runscope Integration', 'TestComplete test', and 'Test Extension'.

The detailed view of the 'Test & Feedback' extension page shows the extension icon, the title 'Test & Feedback', the publisher 'Microsoft', the number of clicks (130,682), a star rating of 4.5 (134 reviews), and the price 'Free'. The description reads: 'Now everyone on the team can own quality. Capture findings, create issues, and collaborate with the team, directly from the browser.' A green 'Install' button is prominently displayed, with a red arrow pointing to it from the right.

[Overview](#)   [Q & A](#)   [Rating & Review](#)

**The "Exploratory Testing" extension is now "Test & Feedback" and is now Generally Available.**

Anyone can now test web apps and give feedback, all directly from the browser on any platform: Windows, Mac, or Linux. Available for Google Chrome and Mozilla Firefox (required version 50.0 or above) currently. Support for Microsoft Edge is in the pipeline and will be enabled after Edge moves to a Chromium-compatible web platform.



## About

The Exploratory Testing extension is now Test & Feedback. [Learn more.](#)



## Test & Feedback

Version : 1.0.170.0

Now everyone on the team can own quality.  
Capture findings, create issues, and collaborate with the team, directly from the browser.

### Quick demo



Watch the 2-min video to know how the extension works!

### Help!



Visit our documentation page to learn more.

### Feedback



Have something to share with us?  
Reach out to us.

### Rate us!



Liked the extension? You can rate us!

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[License Terms](#) | [Privacy Policy](#) | [Support](#)



## Connection settings

Connected  Standalone

Server URL Disconnect

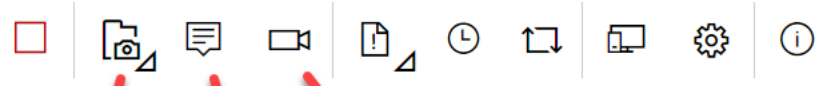
`https://dev.azure.com/PacktLearnDevOps/` ✔

Select your team Refresh

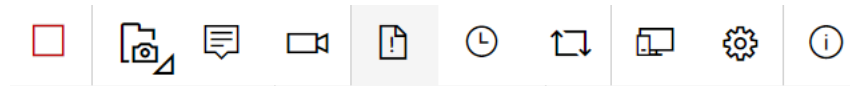
Search... 🔍

- ▲ PacktLearnDevOps
  - ▶ LearnDevOps
  - ▲ Parts.Unlimited
    - Parts.Unlimited Team**
    - PUL

Save



Add a screenshot    Add a note    Record a video



**Create bug**    Create task    Create test case




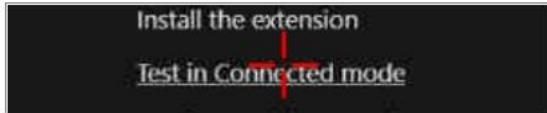


## New bug

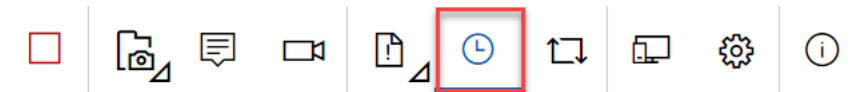


Found a bug related to shipping information 0 Similar

Include:  Image action log  Page load data

- Click on  

- Click on link 'Test in Connected mode':  


Save



## Session timeline (1)



Now @ 14:55



**Bug 178** @ 14:53

Found a bug related to shipping information



Session Started (Id: 3) @ 14:37



Parts.Unlimited Team

Board Analytics View as Backlog

New Design 5/10 Develop & Test

Expedite

- 23 Provide related items or frequently bought together section when people browse or search
  - Unassigned
  - Area Path Parts.Unlimited
  - Priority 2
- 24 As tester, I need to test the website on all the relevant browsers and devices and be sure that it can handle our load.
  - Unassigned
  - Area Path Parts.Unlimited
  - Priority 2
- 142 Decline in orders noticed - Please Investigate immediately
  - Unassigned
  - Severity 3 - Medium
  - Area Path Parts.Unlimited
- 37 Notify the user about any changes made to the order
  - Unassigned
  - Area Path Parts.Unlimited
  - Priority 2
- 38 As a admin, I should be able to update prices on ad-hoc condition
  - Unassigned
  - Area Path Parts.Unlimited
  - Priority 2
- 33 As a customer, I would like to store my credit card details securely
  - Unassigned
  - Area Path Parts.Unlimited
  - Priority 2
- 34 As a customer, I should be able to select different shipping
  - Unassigned
  - Area Path Parts.Unlimited
  - Priority 2

Parts.Unlimited

Test Plans

Mine All + New Test Plan

Title	State	Area Path	Iteration Path
No favorites yet! Favorite a test plan to quickly access it here			
Parts.Unlimited Team			
Parts.Unlimited_TestPlan1	Active	Parts.Unlimited	Parts.Unlimited/Sprint 2

Parts.Unlimited

Parts.Unlimited\_T... Jun 26 - Jul 17 Past 0% run. View report

Test Suites

- Parts.Unlimited\_TestPlan1
  - 36: Provide tentative duratio...
  - 23: Provide related items or fr...
  - 37: Notify the user about any ...
  - 33: As a customer, I would lik...
    - 27: As a customer, I would like...
    - 26: As a customer, I should b...
    - 29: As a customer, I would like...
    - 40: As a customer, I would like...
    - 39: As a customer, I would like...
    - 38: As a admin, I should be ab...
    - 25: As a customer, I should be...

33 : As a customer, I would like to store my credit card details securely (ID: Help 164)

Define Execute Chart

Test Points (3 items) Run for web application

- Title Outcome
- Verify that user is allowed to save his credit card detail Active
- Verify that user is not allowed to save invalid credit card details Active
- Verify that user is allowed to edit and save his valid credit card details Active

← Parts.Unlimited\_T... ☆ : 33 : As a customer, I would like to store my credit card details securely (ID: 164) Jun 26 - Jul 17 Past 0% run. View report

Define Execute Chart

Test Suites

- Parts.Unlimited\_TestPlan1
  - 36 : Provide tentative duratio...
  - 23 : Provide related items or fr...
  - 37 : Notify the user about any ...
  - 33 : As a customer, I would lik...
  - 27 : As a customer, I would like...
  - 26 : As a customer, I should b...
  - 29 : As a customer, I would like...
  - 40 : As a customer, I would like...
  - 39 : As a customer, I would like...

Test Points (3 items) Run for web application

Title	Outcome
<input checked="" type="checkbox"/> Verify that user is allowed to save his credit card detail	...
<input type="checkbox"/> Verify that user is not allowed to save invalid credit car	...
<input type="checkbox"/> Verify that user is allowed to edit and save his valid cre	...

View execution history  
 Mark Outcome  
 Run  
 Reset test to active  
 Edit test case  
 Assign tester

TEST CASE 128 128 Verify that user is allowed to save his credit card detail Sjoukje Zaal 0 comments Add tag Save & Close Follow

State Design Area Parts.Unlimited Reason New Iteration Parts.Unlimited Updated by Sjoukje Zaal: Jun 26

Steps Summary Associated Automation (1)

Steps

Steps	Action	Expected result
1.	Launch the application and login into the application as a customer	User should be able to login into the applicatio an Customer.
2.	Click on the Profile and select Saved Cards	User should be navigated to Saved cards page.
3.	Click on ADD button to add new card details	
4.	Enter the Credit Card number, Expiry date, CVV number and Card holders name and click on Save button	Customers card details should be saved successfully.

Click or type here to add a step

Deployment

Development

Related Work

+ Add link Existing item New item

Details

Priority 2 Automation status Not Automated

# Add link



You are adding a link from:

128 Verify that user is allowed to save his credit card detail  
Updated 6/26/2020,

Link type

Parent

Work items to link

credit card

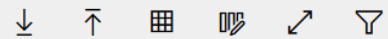
- Feature 22: Credit Card Purchase
- Test Case 129: Verify that user is not allowed to save invalid credit card details
- Product Backlog Item 33: As a customer, I would like to store my credit card det...
- Test Suite 164: 33 : As a customer, I would like to store my credit card details se...
- Test Case 130: Verify that user is allowed to edit and save his valid credit card d...

Showing 5 suggestions

OK Cancel

## 33 : As a customer, I would like to store my credit card details securely (ID: 164)

Define Execute Chart



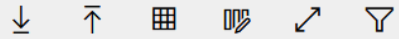
Test Cases (3 items) New Test Case

Title	Order	Test Case Id
<input type="checkbox"/> Verify that user is allowed to save his credit card detail		
<input checked="" type="checkbox"/> Verify that user is not allowed to save invalid credit card details		
<input type="checkbox"/> Verify that user is allowed to edit and save his valid credit card details	3	130



Verify that user is not allowed to save

Define Execute Chart



Test Cases (3 items) New Test Case

Title	Order	Test Case Id
<input checked="" type="checkbox"/> Verify that user is not allowed to save invalid credit card details		
<input type="checkbox"/> Verify that user is allowed to save his credit card detail		
<input type="checkbox"/> Verify that user is allowed to edit and save his valid credit card details		

- View Linked Items
- Open test case
- Assign configuration**
- Remove
- Edit test case(s) in grid
- Edit test case(s)
- Copy test case(s)
- Export test case(s) to CSV

## ASSIGN CONFIGURATIONS TO SELECTED TEST CASES

Selected test cases

Verify that user is not allowed to save invalid credit card details

Search configurations by name or values...

<input checked="" type="checkbox"/> Configuration name ↑	Configuration values
<input checked="" type="checkbox"/> Windows 10	Operating System:Windows 10

Save Cancel

← Parts.Unlimited\_T... ▾ ☆ ⋮

Jun 26 - Jul 17 **Past**

0% run. [View report](#)

### Test Suites

Parts.Unlimited\_TestPlan1

- New Suite >
- Assign configurations
- Export
- Assign testers to run all tests
- Import test suites

- Static suite
- Requirement based suite**
- Query based suite

36 : Provide tentative duration for shipping. (ID: 161)

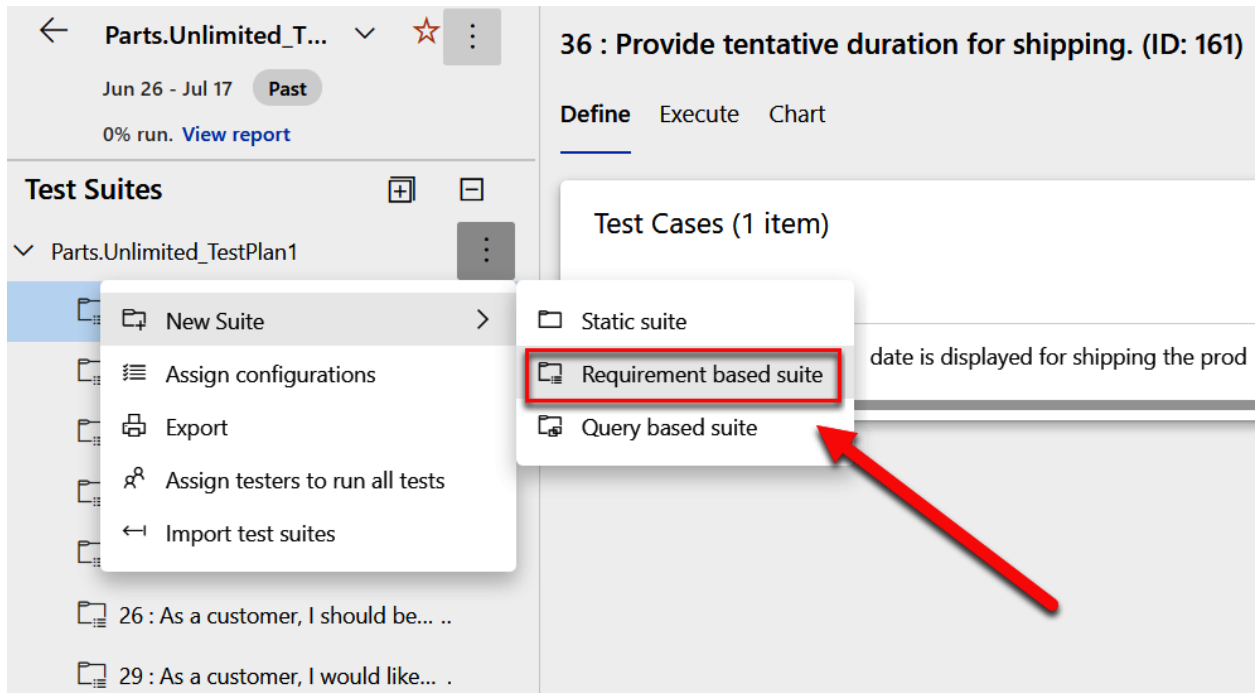
Define Execute Chart

Test Cases (1 item)

date is displayed for shipping the prod

26 : As a customer, I should be... ..

29 : As a customer, I would like... ..



# CREATE REQUIREMENT-BASED SUITES



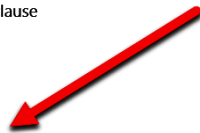
Type of query  Flat list of work items

Query across projects

Filters for top level work items

And/Or	Field*	Operator	Value
<input type="checkbox"/> <input checked="" type="checkbox"/>	Work Item Type	In Group	Microsoft.RequirementCategory
<input type="checkbox"/> <input checked="" type="checkbox"/> And	Area Path	Under	Parts.Unlimited

+ Add new clause



**▶ Run query** ↗

ID	Work Item...	Title	Priority	Assigned To	Area Path
24	Product B...	As tester, I need to test the website on all the relevant browsers and devices and be sure ...	2		Parts.Unlimited
25	Product B...	As a customer, I should be able to put items to shopping cart	2		Parts.Unlimited
26	Product B...	As a customer, I should be able to print my purchase order	2		Parts.Unlimited
27	Product B...	As a customer, I would like to have a sort capability by price and customer ratings	1		Parts.Unlimited
28	Product B...	Recommended products must be based on customer purchase pattern history	2		Parts.Unlimited
29	Product B...	As a customer, I would like to save my addresses so that I can easily select the address fo...	2		Parts.Unlimited
30	Product B...	As marketer, I want to run an A/B test on alternative Web Sites using Application Insights.	2		Parts.Unlimited
31	Product B...	Provide customers the ability to track status of the package	2	craig109@outlook...	Parts.Unlimited
32	Product B...	As a customer, I would like to have the ability to send my items as gift	2	Sjoukje Zaal	Parts.Unlimited
33	Product B...	As a customer, I would like to store my credit card details securely	2		Parts.Unlimited
34	Product B...	As a customer, I should be able to select different shipping option	1		Parts.Unlimited
35	Product B...	As developer, I want to use Azure Machine Learning to provide a recommendations engi...	1		Parts.Unlimited
36	Product B...	Provide tentative duration for shipping.	2		Parts.Unlimited
37	Product B...	Notify the user about any changes made to the order	2		Parts.Unlimited
38	Product B...	As an admin, I should be able to update prices on ad-hoc condition	2		Parts.Unlimited
39	Product B...	As a customer, I would like to provide my feedback on items that I have purchased	2		Parts.Unlimited
40	Product B...	As a customer, I would like to have a wishlist where I can add items for future purchase	1		Parts.Unlimited

18 work items (1 selected)

**Create suites** **Cancel**

Parts.Unlimited\_TestPlan1 Jun 26 - Jul 17 Past 0% run. View report

**Test Suites**

- Parts.Unlimited\_TestPlan1
  - 34 : As a customer, I should be able to select different shipping op...
  - 31 : Provide customers the ability to track status of the package**
  - 36 : Provide tentative duration for shipping. (1)
  - 23 : Provide related items or frequently bought together section ...
  - 37 : Notify the user about any changes made to the order (1)
  - 33 : As a customer, I would like to store my credit card details se... (...)
  - 27 : As a customer, I would like to have a sort capability by pric... (...)
  - 26 : As a customer, I should be able to print my purchase order (1)
  - 29 : As a customer, I would like to save my addresses so that I ca... (...)
  - 40 : As a customer, I would like to have a wishlist where I can ad... (...)
  - 39 : As a customer, I would like to provide my feedback on items... (...)
  - 38 : As an admin, I should be able to update prices on ad-hoc co... (...)
  - 25 : As a customer, I should be able to put items to shopping cart (3)

**31 : Provide customers the ability to track status of the package (ID: 172)** Help

Define Execute Chart

**Add a test case**

Use this tab to collate, add and manage test cases

New Test Case

- Add existing test cases
- Add test cases using grid**

**31 : Provide customers the ability to track status of the package (ID: 172)** Help

Define Execute Chart Close Grid

ID	Title	Step Action	Step Expected Result	Assigned To	State
	Order summary shows expected delivery date	Visit "my orders"	Expected delivery date shown		
	Delayed orders highlighted	Visit order page for delayed package	Delayed status is highlighted		
	Delivery steps for package	Visit order page for in-progress package	Delivery steps and status shown		

**End-to-end tests (ID: 179)** Help

Define Execute Chart

↓ ↑



## Import Test Cases

Import test cases via CSV file import

Choose File Parts.Unlimit...nd tests.csv

Cancel Import



## Parameter values

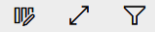
[Add a shared parameter set](#) | [Convert to shared parameters](#)

Email	Password	Name	Phone	Address	City	State	PostalCode	Country	Promo
admin@packt.com	P@ssw0rd	Admin User	425-555-1234	One Packt Way	Redmond	NH	98052	USA	FREE
sjoukje@packt.com	P@ssw0rd	Sjoukje Zaal	555-555-5555	Amsterdam Square	Springfield	UT	11135	USA	FREE

## End-to-end tests (ID: 179)

[Help](#)

Define **Execute** Chart



### Test Points (1 item)



Run for web application

<input checked="" type="checkbox"/> Title	Outcome	Order	Test Case Id	Configuration	Tester
<input checked="" type="checkbox"/> Confirm that order number appears after successful order	Active	2	180	Windows 10	Sjoukje Zaal

View execution history

Mark Outcome

**Run**

Reset test to active

Edit test case

Assign tester

Run for web application

Run for desktop application

**Run with options**

## Run with options

### Select test type and runner

Manual tests using Web Browser based runner

Recommended for testing web applications. Capture screenshots, screen recordings and action logs with this option.

### Select a build



Test results and defects filed are associated to the selected build.

Run

Save and close   Create bug	
prev	Test 1 of 1: Iteration 1
next	
180: Confirm that order number appears after successful order	📄   ✓ ▾
1.  Open project site	✓ ⊗
2. Click Brakes	✓ ⊗
3. Click Disk and Pad Combo	✓ ⊗
4. Click Add to Cart	✓ ⊗
5. Click Checkout	✓ ⊗
6. Click register a new user	✓ ⊗
7. Enter @Email, @Password, @Password <b>Email</b> = admin@packt.com <b>Password</b> = P@ssw0rd	✓ ⊗
8. Click Register	✓ ⊗
9. Click you can click this link to confirm the email: [[link]]	✓ ⊗
10. Click Click here to Log in	✓ ⊗
11. Enter @Email, @Password <b>Email</b> = admin@packt.com <b>Password</b> = P@ssw0rd	✓ ⊗
12. Enter @Name, @Phone, @Email, @Address, @City, @State, @PostalCode, @Country, @Promo <b>Name</b> = Admin User <b>Phone</b> = 425-555-1234 <b>Email</b> = admin@packt.com <b>Address</b> = One Packt Way <b>City</b> = Redmond <b>State</b> = NH <b>PostalCode</b> = 98052 <b>Country</b> = USA <b>Promo</b> = FREE	✓ ⊗
13. Click Submit Order	✓ ⊗
14. Confirm order page has order # EXPECTED RESULT Order # should appear on order confirmation page	✓ ⊗
15. Log out	✓ ⊗

Runner - Test Plans - Work - Microsoft Edge

https://dev.azure.com/PacktLearnDevOps/Parts.Unlimited/\_t...

Save and close | Create bug

Test 1 of 1: Iteration 1

180\*: Confirm that order number appears after successful order

1. Open project site
2. Click Brakes
3. Click Disk and Pad Combo
4. Click Add to Cart
5. Click Checkout
6. Click register a new user
7. Enter @Email, @Password, @Password  
Email = admin@packt.com  
Password = P@ssw0rd
8. Click Register
9. Click you can click this link to confirm the email: [[link]]
10. Click Click here to Log in
11. Enter @Email, @Password  
Email = admin@packt.com  
Password = P@ssw0rd
12. Enter @Name, @Phone, @Email, @Address, @City, @State, @PostalCode, @Country, @Promo

Home Page - Parts Unlimited

localhost:5001

Parts Unlimited  
a Fabrikam subsidiary

Brakes Lighting Wheels & Tires Batteries Oil More

New Arrival : Bugeye Headlights (2 Pack)

ALL OIL AND FILTERS  
50%  
CHRISTMAS DISC

Save and close | Create bug | [Icons]

prev | Test 1 of Iteration 1 | next

### 180\*: Confirm that order number appears after successful order

- Open project site ✓ ✗
- Click Brakes ✓ ✗
- Click Disk and Pad Combo ✓ ✗
- Click Add to Cart ✓ ✗
- Click Checkout ✓ ✗
- Click register a new user ✓ ✗
- Enter @Email, @Password, @Password  
**Email** = admin@packt.com  
**Password** = P@ssw0rd ✓ ✗
- Click Register ✓ ✗
- Click you can click this link to confirm the email: [\[\[link\]\]](#) ✓ ✗
- Click Click here to Log in ✓ ✗
- Enter @Email, @Password  
**Email** = admin@packt.com  
**Password** = P@ssw0rd ✓ ✗
- Enter @Name, @Phone, @Email, @Address, @City, @State, @PostalCode, @Country, @Promo  
**Name** = Admin User  
**Phone** = 425-555-1234  
**Email** = admin@packt.com  
**Address** = One Packt Way  
**City** = Redmond  
**State** = NH  
**PostalCode** = 98052  
**Country** = USA  
**Promo** = FREE ✓ ✗
- Click Submit Order ✓ ✗
- Confirm order page has order # ✓ ✗  
EXPECTED RESULT  
Order # should appear on order confirmation page  
COMMENT
- Log out ✓ ✗  
COMMENT

Azure DevOps PackitLearnDevOps / PartsUnlimited / Test Plans / Runs

PartsUnlimited + Enter Run ID... Go

Overview

Boards

Repos

Pipelines

Test Plans

Test plans

Progress report

Parameters

Configurations

**Runs**

Load test

Artifacts

Recent test runs

Test runs Filter

State	Run L.	Title	Completed Date	Build Number	Failed	Pass Rate
Needs investigat...	10	End-to-end tests (Manual)	9/2/2020 2:43:17 PM		1	0%

Enter Run ID... Go Run 10 - End-to-end tests (Manual)

Run summary Test results Filter

Update comment Add attachment

Summary

Completed with failures 5 minutes ago. Ran for 15 minutes 42 seconds

Run type	Manual
Owner	Sjoukje Zaal
Tested build	not available
Release	not available
Release Stage	not available
Build platform	not available
Build flavor	not available
Test settings	Run time settings
MTM lab environment	not available

Comments

No comments

Error message

No error message

Attachments ()

Outcome

1 Failed

Outcome by priority

2 Failed

Outcome by configuration

2 Failed

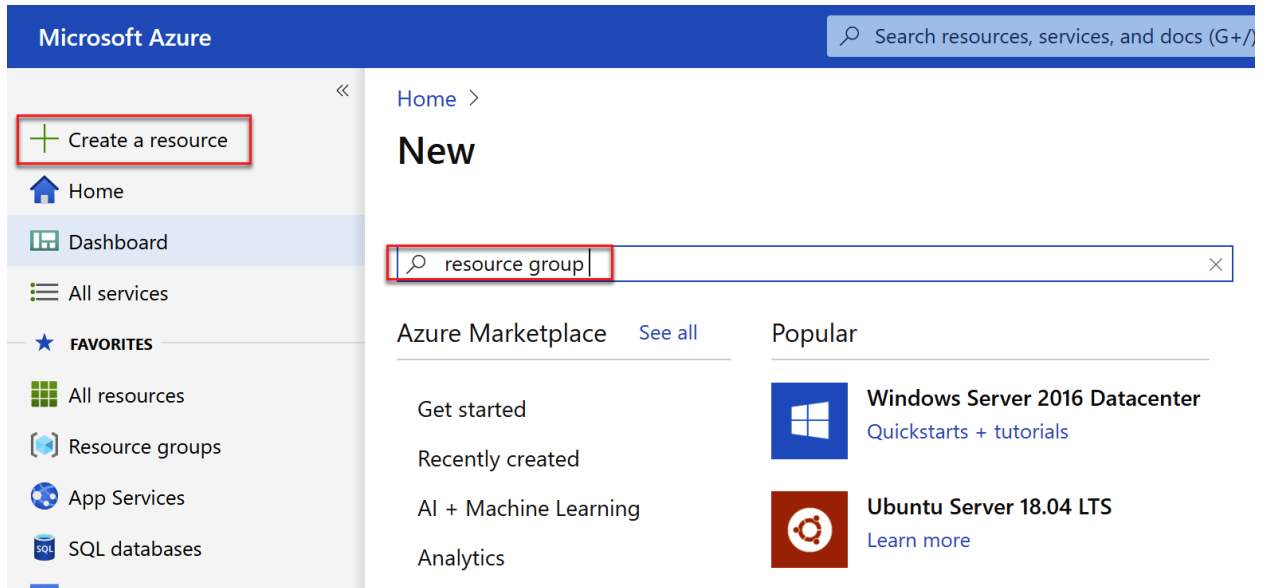
Outcome by failure type

None Failed

Outcome by resolution

None Failed

# Chapter 11: Real-World CI/CD Scenarios with Azure DevOps



## Create a resource group

[Basics](#) [Tags](#) [Review + create](#)

**Resource group** - A container that holds related resources for an Azure solution. The resource group can include all the resources for the solution, or only those resources that you want to manage as a group. You decide how you want to allocate resources to resource groups based on what makes the most sense for your organization. [Learn more](#)

### Project details

Subscription \* ⓘ

Resource group \* ⓘ

### Resource details

Region \* ⓘ

Project Details (UTC-7 Pacific) ▼

Contoso-ToDo-Staging ✓

(US) East US ▼

Create a resource

Home

Dashboard

All services

FAVORITES

All resources

Resource groups

App Services

SQL databases

Virtual machines

Storage accounts

Home >

## New

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AI + Machine Learning

Analytics

Blockchain

Compute



Windows Server 2016 Datacenter

[Quickstarts + tutorials](#)



Ubuntu Server 18.04 LTS

[Learn more](#)



Web App

[Quickstarts + tutorials](#)

## Create Web App

Basics Monitoring Tags Review + create

App Service Web Apps lets you quickly build, deploy, and scale enterprise-grade web, mobile, and API apps running on any platform. Meet rigorous performance, scalability, security and compliance requirements while using a fully managed platform to perform infrastructure maintenance. [Learn more](#)

### Project Details

Select a subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription \* ⓘ

USE APPS (US) ▾

Resource Group \* ⓘ

Contoso-ToDo-Staging ▾

[Create new](#)

### Instance Details

Name \*

contosotodostaging ✓

.azurewebsites.net

Publish \*

Code  Docker Container

Runtime stack \*

ASP.NET V4.7 ▾

Operating System \*

Linux  Windows

Region \*

Central US ▾

Not finding your App Service Plan? Try a different region.

## App Service Plan

App Service plan pricing tier determines the location, features, cost and compute resources associated with your app. [Learn more](#)

Windows Plan (East US) \* ⓘ

(New) ASP-ContosoToDoStaging-8a24

[Create new](#)

Skus and size \*

**Standard S1**

100 total ACU, 1.75 GB memory

[Change size](#)

Microsoft Azure Search resources, services, and docs (G+/)

Home >

### New

Search the Marketplace

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- Recently created
- AI + Machine Learning
- Analytics
- Blockchain
- Compute
- Containers
- Databases

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**Web App**  
[Quickstarts + tutorials](#)

**SQL Database**  
[Quickstarts + tutorials](#)


Navigation: Create a resource, Home, Dashboard, All services, FAVORITES, All resources, Resource groups, App Services, SQL databases, Virtual machines, Storage accounts, Azure Active Directory, Azure Cosmos DB



# Create SQL Database



Microsoft



[Basics](#) [Networking](#) [Additional settings](#) [Tags](#) [Review + create](#)

Create a SQL database with your preferred configurations. Complete the Basics tab then go to Review + Create to provision with smart defaults, or visit each tab to customize. [Learn more](#) 

## Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription \*   



Resource group \*   

[Create new](#)


## Database details


Enter required settings for this database, including picking a logical server and configuring the compute and storage resources

Database name \*

Server \*   

[Create new](#)

Want to use SQL elastic pool? \*   Yes  No

Compute + storage \*  **Standard S0**  
10 DTUs, 250 GB storage  
[Configure database](#)


---

[Review + create](#) [Next : Networking >](#)


# Create SQL Database


Microsoft

Basics **Networking** Additional settings Tags Review + create

Configure network access and connectivity for your server. The configuration selected below will apply to the selected server 'contosotodo-staging-dbserver' and all databases it manages. [Learn more](#) 

## Network connectivity

Choose an option for configuring connectivity to your server via public endpoint or private endpoint. Choosing no access creates with defaults and you can configure connection method after server creation. [Learn more](#) 


Connectivity method \* 

No access

Public endpoint

Private endpoint

## Firewall rules

Setting 'Allow Azure services and resources to access this server' to Yes allows communications from all resources inside the Azure boundary, that may or may not be part of your subscription. [Learn more](#) 

Setting 'Add current client IP address' to Yes will add an entry for your client IP address to the server firewall.

Allow Azure services and resources to access this server \*

No  Yes

Add current client IP address \*

No  Yes

Review + create

< Previous

Next : Additional settings >

# Create new project



Project name \*

Contoso ToDo

Description

Azure DevOps Project for Contoso ToDo Application

Visibility



Public

Anyone on the internet can view the project. Certain features like TFVC are not supported.



Private

Only people you give access to will be able to view this project.



Advanced

Azure DevOps PacktLearnAzureDevOps / Contoso ToDo / Repos / Files / Contoso ToDo

Contoso ToDo +

Overview

Boards

Repos

Files

Commits

Pushes

Branches

Tags

Pull requests

Pipelines

Test Plans

Artifacts

Contoso ToDo is empty. Add some code!

Clone to your computer

HTTPS

SSH

https://PacktLearnAzureDevOps@dev.azure.com/PacktLearnAzureDe



OR

Clone in VS Code



Generate Git Credentials

Having problems authenticating in Git? Be sure to get the latest version Git for Windows or our plugins for IntelliJ, Eclipse, Android Studio or Windows command line.

Push an existing repository from command line

HTTPS

SSH

git remote add origin

https://PacktLearnAzureDevOps@dev.azure.com/PacktLearnAzureDevOps/Contoso%



Import a repository

Import

Initialize master branch with a README or gitignore

Add a README

Add a .gitignore: None

Initialize

# Import a Git repository

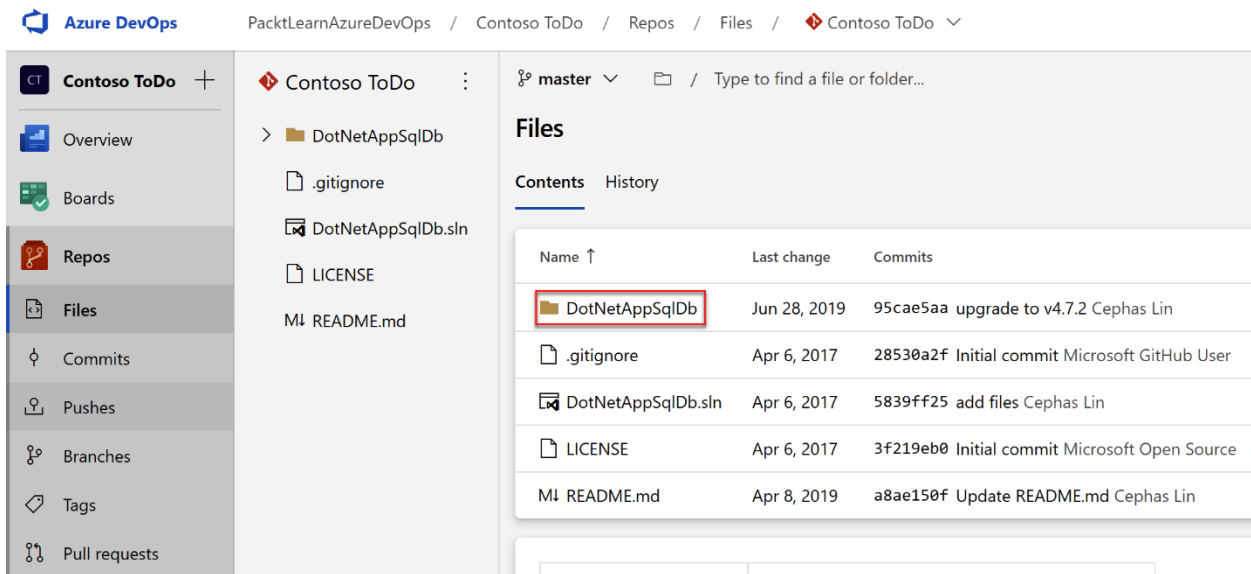


Repository type

 Git 

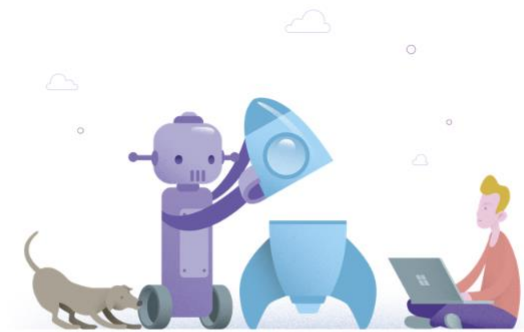
Clone URL \*

Requires Authentication



Azure DevOps interface showing a repository view for 'Contoso ToDo'. The left sidebar contains navigation options: Overview, Boards, Repos, Files, Commits, Pushes, Branches, Tags, and Pull requests. The main area shows the repository structure with a file list:

Name ↑	Last change	Commits
<b>DotNetAppSqlDb</b>	Jun 28, 2019	95cae5aa upgrade to v4.7.2 Cephas Lin
.gitignore	Apr 6, 2017	28530a2f Initial commit Microsoft GitHub User
DotNetAppSqlDb.sln	Apr 6, 2017	5839ff25 add files Cephas Lin
LICENSE	Apr 6, 2017	3f219eb0 Initial commit Microsoft Open Source
README.md	Apr 8, 2019	a8ae150f Update README.md Cephas Lin



## Create your first Pipeline

Automate your build and release processes using our wizard, and go from code to cloud-hosted within minutes.

[Create Pipeline](#) 

Connect

Select

Configure

Review

New pipeline

## Where is your code?



Azure Repos Git YAML

Free private Git repositories, pull requests, and code search



Bitbucket Cloud YAML

Hosted by Atlassian



GitHub YAML

Home to the world's largest community of developers



GitHub Enterprise Server YAML

The self-hosted version of GitHub Enterprise



Other Git

Any generic Git repository



Subversion

Centralized version control by Apache

Use the classic editor to create a pipeline without YAML.

## Select a source

Selection options for source control:


- Azure Repos Git** (Selected)
- GitHub
- GitHub Enterprise Server
- Subversion
- Bitbucket Cloud
- Other Git

Configuration for the selected source:

- Team project:** Contoso ToDo
- Repository:** Contoso ToDo
- Default branch for manual and scheduled builds:** master

**Continue**

## Select a template

Or start with an  **Empty job**

### Configuration as code



#### YAML

Looking for a better experience to configure your pipelines using YAML files? Try the new YAML pipeline creation experience. [Learn more](#)

### Featured



#### .NET Desktop

Build and test a .NET or Windows classic desktop solution.



#### Android

Build, test, sign, and align an Android APK.



#### ASP.NET

Build and test an ASP.NET web application.

# Contoso ToDo-ASP.NET-CI

Tasks Variables Triggers Options Retention History | **Save & queue** Discard Summary Queue ... ↗

**Pipeline**  
Build pipeline

**Get sources**  
Contoso ToDo master

**Agent job 1**  
Run on agent

- Use NuGet 4.4.1**  
NuGet tool installer
- NuGet restore**  
NuGet
- Build solution**  
Visual Studio build
- Test Assemblies**  
Visual Studio Test
- Publish symbols path**  
Index sources and publish symbols
- Publish Artifact**  
Publish build artifacts

**Name \***  
Contoso ToDo-ASP.NET-CI

**Agent pool \*** | Pool information | Manage  
Azure Pipelines

**Agent Specification \***  
vs2017-win2016

**Parameters** | Unlink all

**Path to solution or packages.config \***  
\*\*\\*.sln

**Artifact Name \***  
drop

## ← Jobs in run #20200824.1

Contoso ToDo-ASP.NET-CI

### Jobs

✓	Agent job 1	1m 21s
✓	Initialize job	7s
✓	Checkout Contoso ToDo@master ...	8s
✓	Use NuGet 4.4.1	<1s
✓	NuGet restore	32s
✓	Build solution	24s
✓	Test Assemblies	1s
✓	Publish symbols path	4s
✓	Publish Artifact	1s
✓	Post-job: Checkout Contoso ToD...	<1s
✓	Finalize Job	<1s
✓	Report build status	<1s

## ✓ Agent job 1

```
1 Pool: Azure Pipelines
2 Image: vs2017-win2016
3 Agent: Hosted Agent
4 Started: Just now
5
6 ▶ Job preparation parameters
7 ▶ ⚡ 3 queue time variables used
8 📦 1 artifact produced
9 Job live console data:
10 Finishing: Agent job 1
```



Continuous integration

**Contoso ToDo**  
Enabled

Scheduled + Add  
No builds scheduled

Build completion + Add  
Build when another build completes

**Contoso ToDo**

Enable continuous integration  
 Batch changes while a build is in progress

Branch filters

Type: Include Branch specification: master

+ Add

Path filters  
+ Add

## New service connection

Choose a service or connection type

- Search connection types
- Azure Classic
  - Azure Repos/Team Foundation Server
  - Azure Resource Manager

## New Azure service connection

Azure Resource Manager

Authentication method

- Service principal (automatic) Recommended
- Service principal (manual)
- Managed identity
- Publish Profile

# New Azure service connection



Azure Resource Manager using service principal (automatic)

Scope level

- Subscription
- Management Group
- Machine Learning Workspace

Subscription

[Blurred subscription ID] ✓

Resource group

[Empty dropdown] ✓

## Details

Service connection name

Azure Connection |

Description (optional)

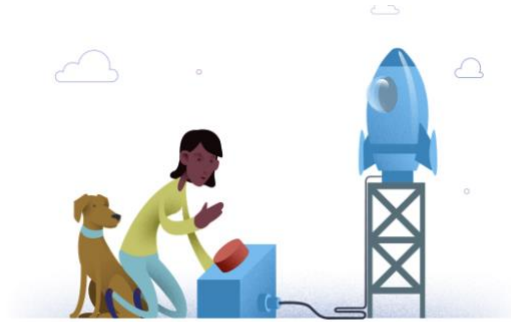
[Empty text area]

Security

- Grant access permission to all pipelines

[Learn more](#)  
[Troubleshoot](#)

Back **Save**



## No release pipelines found

Automate your release process in a few easy steps with a new pipeline

[New pipeline](#)

Select a template

Or start with an [📦 Empty job](#)

Featured



### Azure App Service deployment

Deploy your application to Azure App Service. Choose from Web App on Windows, Linux, containers, Function Apps, or WebJobs.



### Deploy a Java app to Azure App Service

Deploy a Java application to an Azure Web App.



### Deploy a Node.js app to Azure App Service

Deploy a Node.js application to an Azure Web App.



### Deploy a PHP app to Azure App Service and Azure Database for MySQL

Deploy a PHP application to an Azure Web App and database to Azure Database for MySQL.





### Deploy a Python app to Azure App Service and Azure database for MySQL

Deploy a Python Django, Bottle, or Flask application to an

## Stage

 Delete  Move 

Development Environment

 Properties 

Name and owners of the stage



Stage name

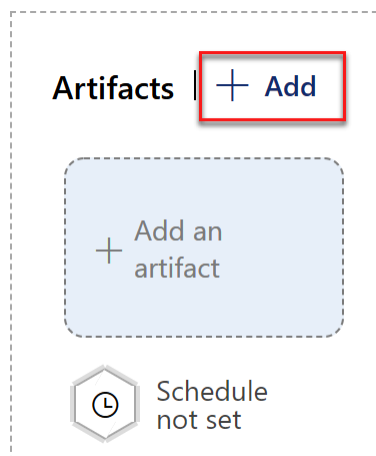
Development Environment

Stage owner



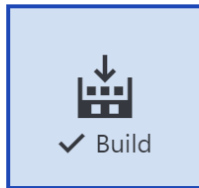
## All pipelines > New release pipeline

**Pipeline**  Tasks  Variables Retention Options History



# Add an artifact

Source type



Azure Repos ...



GitHub



TFVC

5 more artifact types ▼

Project \* ⓘ

Contoso ToDo ▼

Source (build pipeline) \* ⓘ

Contoso ToDo-ASP.NET-CI ▼

Default version \* ⓘ

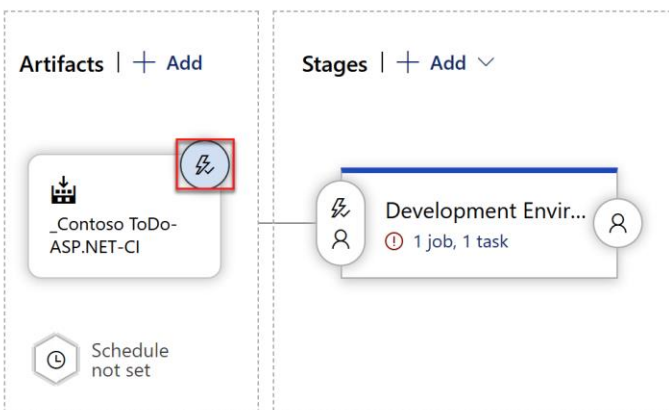
Latest ▼

Source alias \* ⓘ

\_Contoso ToDo-ASP.NET-CI

ⓘ The artifacts published by each version will be available for deployment in release pipelines. The latest successful build of **Contoso ToDo-ASP.NET-CI** published the following artifacts: **drop**.

Add



## Continuous deployment trigger

Build: \_Contoso ToDo-ASP.NET-CI

Enabled

Creates a release every time a new build is available.

Build branch filters ⓘ

No filters added.

+ Add | ▼

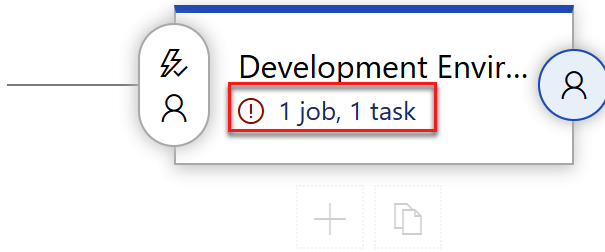
## Pull request trigger

Build: \_Contoso ToDo-ASP.NET-CI

Disabled

ⓘ Enabling this will create a release every time a selected workflow

Stages | + Add ▾



Stage name

Parameters ⓘ | 🔗 Unlink all

Azure subscription \* 🔗 | Manage ↗

ⓘ Scoped to subscription 'VSE-MPN-SPE-DD'

App type 🔗

App service name \* 🔗

All pipelines > 📄 New release pipeline

Pipeline **Tasks** ▾ Variables Retention Options History

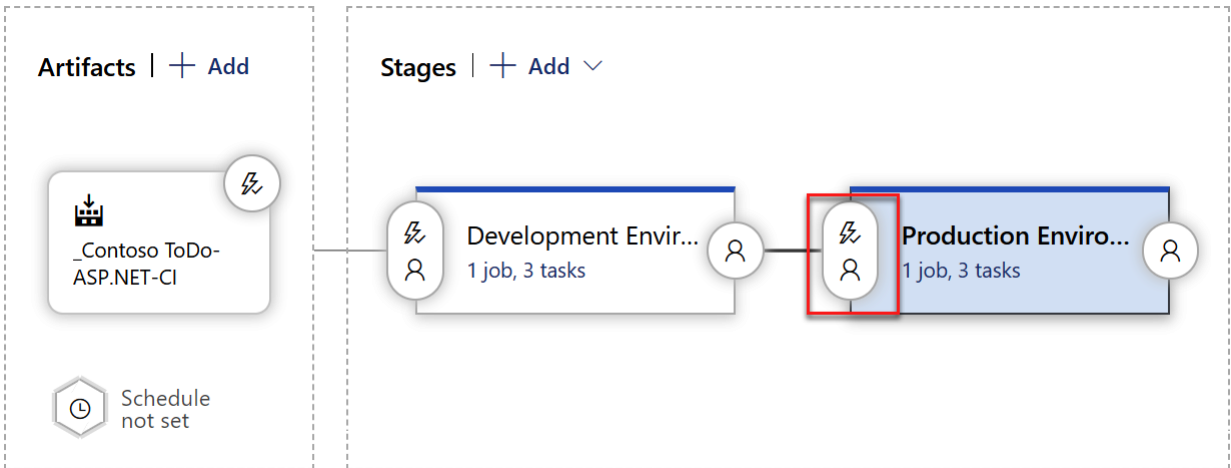
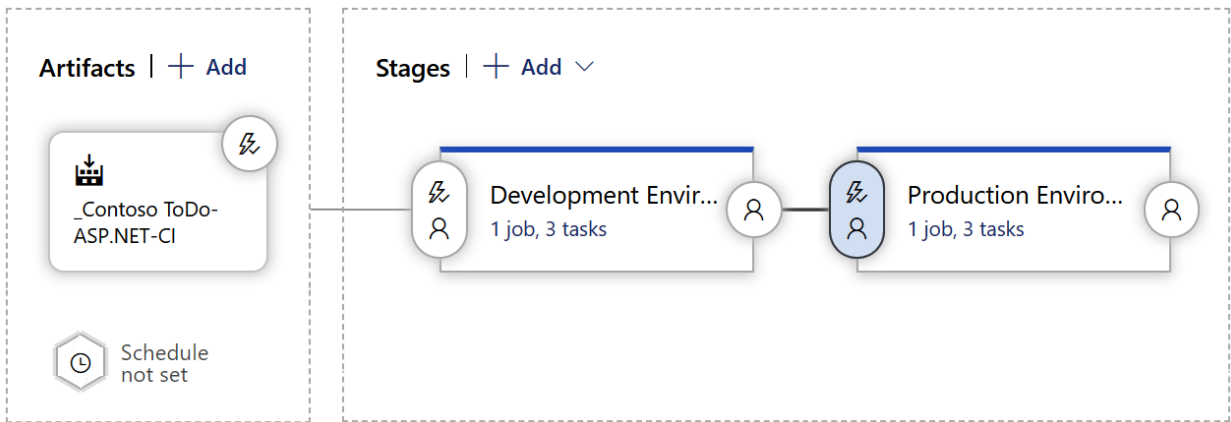
<p><b>Development Environment</b> ...</p> <p>Deployment process</p> <hr/> <p><b>Run on agent</b> +</p> <p>Run on agent</p> <hr/> <p> <b>Deploy Azure App Service</b> Azure App Service deploy</p> <hr/> <p> <b>Apply Database migration script</b> Azure SQL Database deployment</p>	<p><b>Add tasks</b>   <input type="button" value="↻"/> Refresh</p> <hr/> <p> <b>Azure App Service manage</b> Start, stop, restart, slot swap, slot delete, install site extensions or enable continuous monitoring for an Azure App Service</p> <hr/> <p> <b>Service Fabric application deployment</b> Deploy an Azure Service Fabric application to a cluster</p> <hr/> <p> <b>Azure App Service Settings</b> Update/Add App settings an Azure Web App for Linux or Windows</p>
--	--

All pipelines > **New release pipeline**

**Save** Create

Pipeline **Tasks** Variables Retention Options History

<b>Development Environment</b> Deployment process	<b>Azure App Service Settings</b> ⓘ <a href="#">View YAML</a> <a href="#">Remove</a>
<b>Run on agent</b> + Run on agent	Task version 1.*
<b>Deploy Azure App Service</b> Azure App Service deploy	Display name * Azure App Service Settings: contosotodostaging
<b>Apply Database migration script</b> Azure SQL Database deployment	Azure subscription * ⓘ   <a href="#">Manage</a>
<b>Azure App Service Settings: contosotodostaging</b> ✓ <a href="#">More</a> Azure App Service Settings	Azure Connection <a href="#">Refresh</a> ⓘ Scoped to subscription 'VSE-MPN-SPE-DD'
	App Service name * ⓘ







https://contosotodostaging.azurewebsites.net

## My ToDoList App

# Todos

[Create New](#)

**Description**

**Created Date**


© 2020 - My ASP.NET Application

New release pipeline > Release-3



Pipeline Variables History | + Deploy Cancel Approve multiple Refresh Edit ...

### Release

Manually triggered

by  amymalik  
8/25/2020, 12:05 AM

Artifacts

  
\_Contoso ToDo-ASP.NE...  
20200824.1  
 master

### Stages


Development Environ

✓ Succeeded

on 8/25/2020, 12:07 AM

Production Environme

⏸ Pending approval

On  amymalik  
for 1 minute

✓ Approve

# Index.cshtml

[Contents](#) [Highlight changes](#)

```
1 @model IEnumerable<DotNetAppSqlDb.Models.Todo>
2
3 @{
4     ViewBag.Title = "Index";
5 }
6
7 <h2>Todos</h2>
8
9 <p>
10     @Html.ActionLink("Create New ToDo Item", "Create")
11 </p>
12 <table class="table">
13     <tr>
14         <th>
15             @Html.DisplayNameFor(model => model.Description)
16         </th>
17         <th>
18             @Html.DisplayNameFor(model => model.CreatedDate)
19         </th>
20     <th></th>
21 </tr>
22
23 @foreach (var item in Model) {
24     <tr>
25         <td>
26             @Html.DisplayFor(modelItem => item.Description)
27         </td>
28         <td>
29             @Html.DisplayFor(modelItem => item.CreatedDate)
30         </td>
31         <td>
32             @Html.ActionLink("Edit", "Edit", new { id=item.ID }) |
33             @Html.ActionLink("Details", "Details", new { id=item.ID }) |
34             @Html.ActionLink("Delete", "Delete", new { id=item.ID })
35         </td>
36     </tr>
37 }
38
39 </table>
40
```

## Import a Git repository




Repository type


 Git 

Clone URL \*

Requires Authentication

## Select a template

Or start with an  **Empty job**

 Search

## Configuration as code



### YAML

Looking for a better experience to configure your pipelines using YAML files? Try the new YAML pipeline creation experience. [Learn more](#)

## Featured



### .NET Desktop

Build and test a .NET or Windows classic desktop solution.



### Android

Build, test, sign, and align an Android APK.



### ASP.NET

Build and test an ASP.NET web application.



### Azure Web App for ASP.NET

Build, package, test, and deploy an ASP.NET Azure Web App.



### Docker container

Build a Docker image and push it to a container registry.



### Maven

Build and test a Java project with Apache Maven.



### Python package

Create and test a Python package on multiple Python versions.



### Xcode

Build, test, archive, or package an Xcode workspace on macOS.

# Contoso Voting App-Docker container-CI

Tasks Variables Triggers Options Retention History | Save & queue Discard Summary Queue ...

**Pipeline** Build pipeline ...

**Get sources** Contoso Voting App master

**Agent job 1** Run on agent +

**Build an image** Docker

**Push an image** Docker ✓

### Docker

Task version 0.\*

Display name \* Push an image

Container Registry Type \* Azure Container Registry

Azure subscription | Manage

Scoped to subscription 'VSE-MPN-SPE-DD'

Azure Container Registry ContosoStageACR

Action \* Push an image

Image Name \* \$(Build.Repository.Name):\$(Build.BuildId)

Qualify Image Name

Additional Image Tags

Include Source Tags

Include Latest Tag

Image Digest File

Advanced Options

Control Options

Output Variables

### ContosoStageACR | Repositories

Container registry

Search (Ctrl+/) << Refresh

Search to filter repositories ...

Repositories ↑↓

- contosovotingapp ...

Overview

Activity log

Access control (IAM)

Tags

Quick start

Events

Settings

- Access keys
- Encryption
- Identity
- Networking
- Security
- Locks
- Export template

Services

- Repositories

### contosovotingapp

Repository

Refresh Delete

Essentials

Repository : contosovotingapp Tag count : 1

Last updated date : 8/26/2020, 11:14 AM PDT Manifest count : 1

Search to filter tags ...

Tags ↑↓

- 48

### contosovotingapp:48

sha256:f5b2a842b7c3e760f975f70b4b09ac6b5454916f23977376062a3e12b2bac259

Essentials

Repository	: contosovotingapp	Digest	: sha256:f5b2a842b7c3e760f975f70b4b09ac6b5454916f23977376062a3e12b2bac...
Tag	: 48	Manifest creation date	: 8/26/2020, 11:14 AM PDT
Tag creation date	: 8/26/2020, 11:14 AM PDT	Platform	: linux / amd64
Tag last updated date	: 8/26/2020, 11:14 AM PDT		

Docker pull command `docker pull contosostageacr.azurecr.io/contosovotingapp:48`


Manifest

```
{
  "schemaVersion": 2,
  "mediaType": "application/vnd.docker.distribution.manifest.v2+json",
  "config": {
```

# Contoso Voting App-Docker container-CI

Tasks Variables **Triggers** Options Retention History | Save & queue Discard Summary Queue ...

## Continuous integration

 **Contoso Voting APP**  
Enabled

Scheduled + Add

No builds scheduled

Build completion + Add

Build when another build completes

## Contoso Voting APP

Enable continuous integration

Batch changes while a build is in progress

### Branch filters

Type

Branch specification

Include

\*/ master

+ Add

### Path filters

+ Add

## Select a template

Or start with an  [Empty job](#)

kubernetes

## Featured



### Deploy to a Kubernetes cluster

Deploy, configure, update your containerized applications to a Kubernetes cluster.

## Add an artifact

Source type



Build



✓ Azure Re...



GitHub



TFVC

5 more artifact types ∨

Project \* i

Contoso Voting APp ∨

Source (repository) \* i

Contoso Voting APp ∨

Default branch \* i

master ∨

Default version \* i

Latest from the default branch ∨

Checkout submodules i

Checkout files from LFS i

Shallow fetch depth i

Source alias \* i

\_Contoso Voting APp

Add

## New service connection



### Authentication method

- KubeConfig
- Service Account
- Azure Subscription

### Cluster

### Namespace

- Use cluster admin credentials

### Details

#### Service connection name

#### Description (optional)

### Security

- Grant access permission to all pipelines

## Select a file or folder

- └─ Linked artifacts
  - └─ \_Contoso Voting APp (Azure Repos Git)
    - └─ azure-vote
    - └─ jenkins-tutorial
    - └─ .gitignore
    - └─ **azure-vote-all-in-one-redis.yaml**
    - └─ docker-compose.yaml
    - └─ LICENSE
    - └─ README.md

The artifacts published by each version will be available for deployment in release pipelines. The last successful version of **\_Contoso Voting APp (Azure Repos Git)** published the following artifacts: **azure-vote, jenkins-tutorial, .gitignore and 4 more.**

Location

OK

Cancel



All pipelines > **New release pipeline**

Pipeline **Tasks** Variables Retention Options History

Development Environment. ...  
Deployment process

Agent job +  
Run on agent

Deploy to Kubernetes ✓  
Kubectl

Kubectl ⓘ

View YAML Remove

Task version 0.\*

Display name \*

Deploy to Kubernetes

Kubernetes service connection ⓘ | Manage

Contoso AKS Default Cluster ↕ + New

Namespace ⓘ

default

Commands ^

Command ⓘ

apply

Use Configuration files ⓘ

Configuration file \* ⓘ

\$(System.DefaultWorkingDirectory)/\_Contoso Voting APp/azure-vote-all-in-one-redis.yaml ...

Arguments ⓘ

...

Secrets ▾

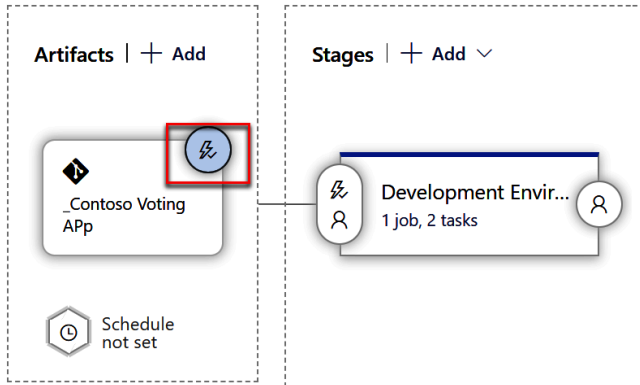
ConfigMaps ▾

Advanced ▾

Output ▾

Control Options ▾

Output Variables ▾



### Continuous deployment trigger

Git: \_Contoso Voting App

Enabled

Creates a release every time a Git push occurs in the selected repository.

#### Branch filters ⓘ

No filters added.

+ Add

#### Pull request trigger

Git: \_Contoso Voting App

Disabled

ⓘ Enabling this will create a release every time a selected artifact is available as part of a workflow

```
amit@Azure:~$ kubectl get pods
```

NAME	READY	STATUS	RESTARTS	AGE
azure-vote-back-f9cc849fb-dzw6j	1/1	Running	0	3m
azure-vote-front-fb8f5c676-9cz21	1/1	Running	0	3m
azure-vote-front-fb8f5c676-bdnp5	1/1	Running	0	3m
azure-vote-front-fb8f5c676-kdpn4	1/1	Running	0	3m
azure-vote-front-fb8f5c676-sr2ff	1/1	Running	0	3m

```
amit@Azure:~$ kubectl get services
```

NAME	TYPE	CLUSTER-IP	EXTERNAL-IP	PORT(S)	AGE
azure-vote-back	ClusterIP	10.0.59.133	<none>	6379/TCP	3m
azure-vote-front	LoadBalancer	10.0.207.40	13.76.128.239	80:30559/TCP	3m
kubernetes	ClusterIP	10.0.0.1	<none>	443/TCP	15d

```
amit@Azure:~$
```

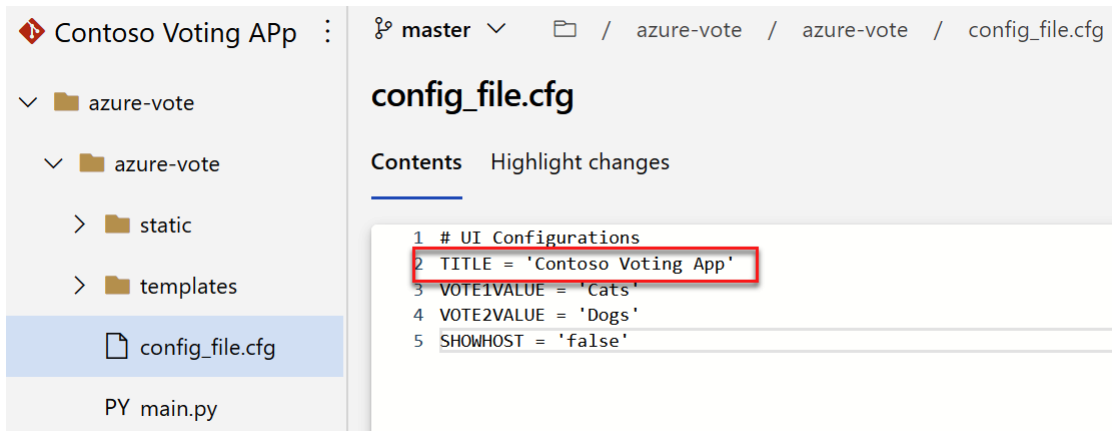
# Azure Voting App

Cats

Dogs

Reset

Cats - 2 | Dogs - 3



The screenshot shows a code editor window titled "Contoso Voting App". The breadcrumb path is "master / azure-vote / azure-vote / config\_file.cfg". The file "config\_file.cfg" is open, showing the following content:

```
1 # UI Configurations
2 TITLE = 'Contoso Voting App'
3 VOTE1VALUE = 'Cats'
4 VOTE2VALUE = 'Dogs'
5 SHOWHOST = 'false'
```

The file explorer on the left shows the project structure:

- azure-vote
- azure-vote
  - static
  - templates
  - config\_file.cfg
- PY main.py