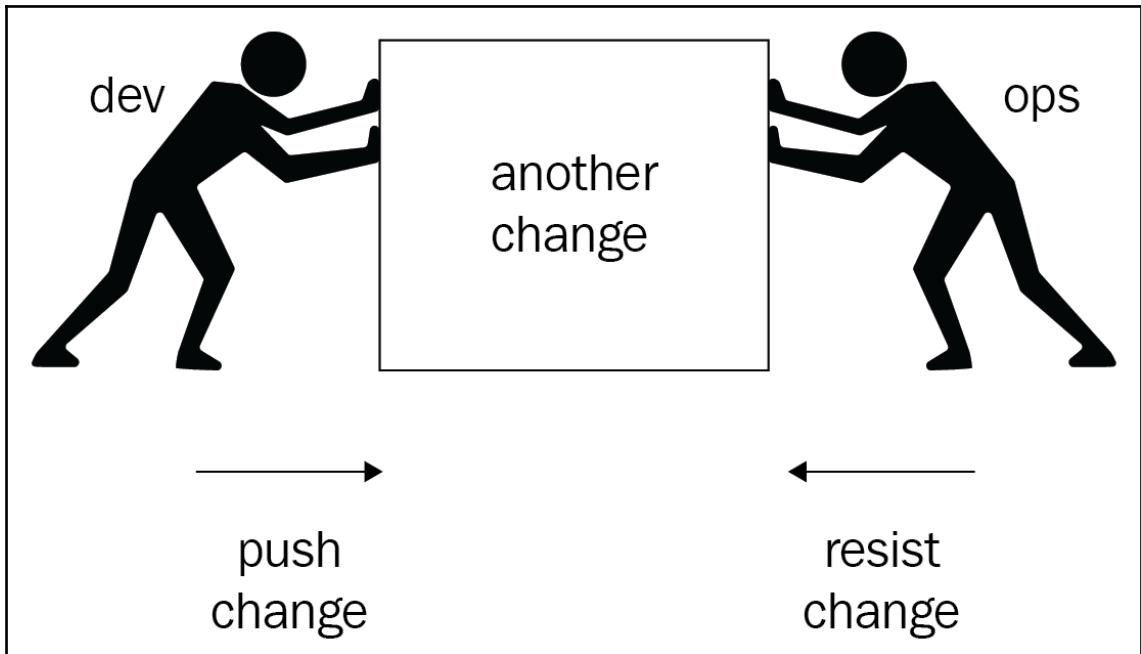


Graphics Bundle

Chapter 1: Introduction to DevOps



Presentations Team

View as Backlog

Active 2/5 Testing 0/5 Resolved 0/5 Closed

New item

311 As a user I want to view my profile, so I can manage my password
State New

310 Alert fired: CPU usage > 80% last 5 minutes
Henry Been
State Active

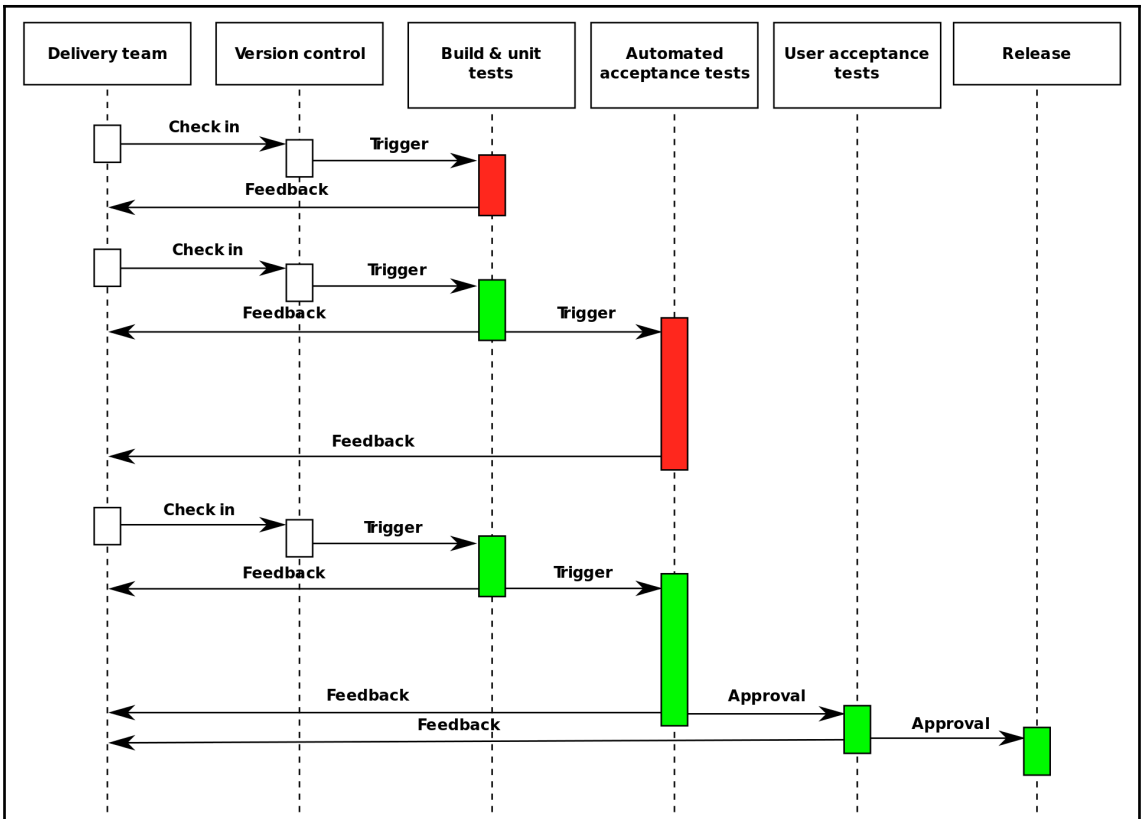
312 As an user I want to log out, so others cannot use the system when I walk away
ateamember@h...
State Active

Active 2/5 Testing 0/5 Resolved 0/5

Fastlane

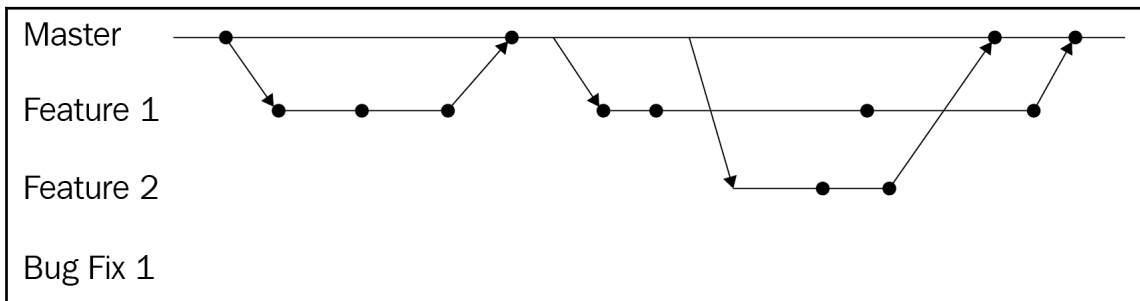
Doing Done Doing Done

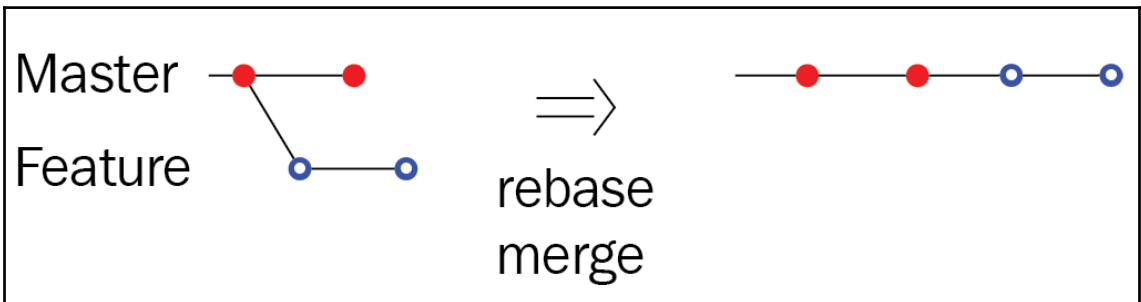
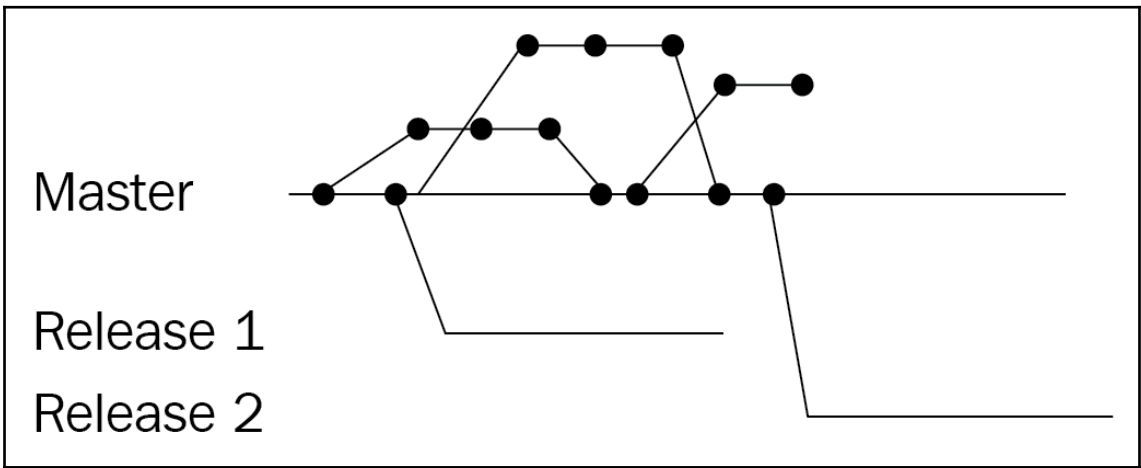
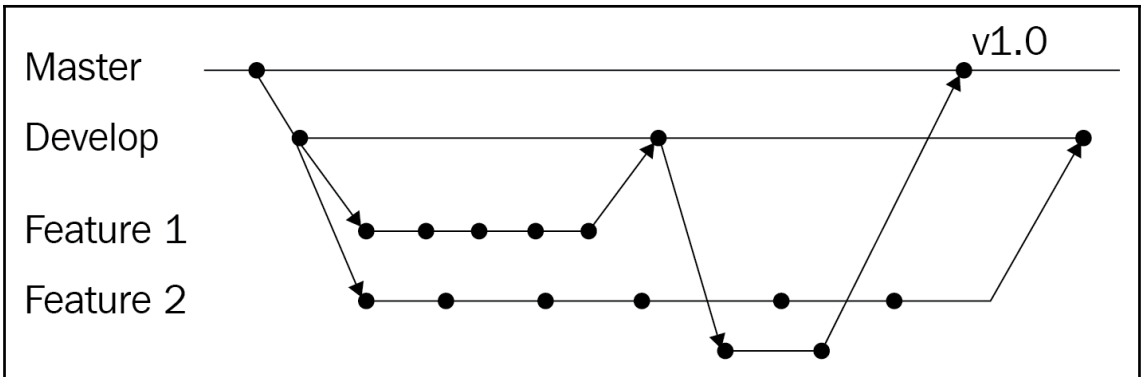
310 Alert fired: CPU usage > 80% last 5 minutes
Henry Been
State Active

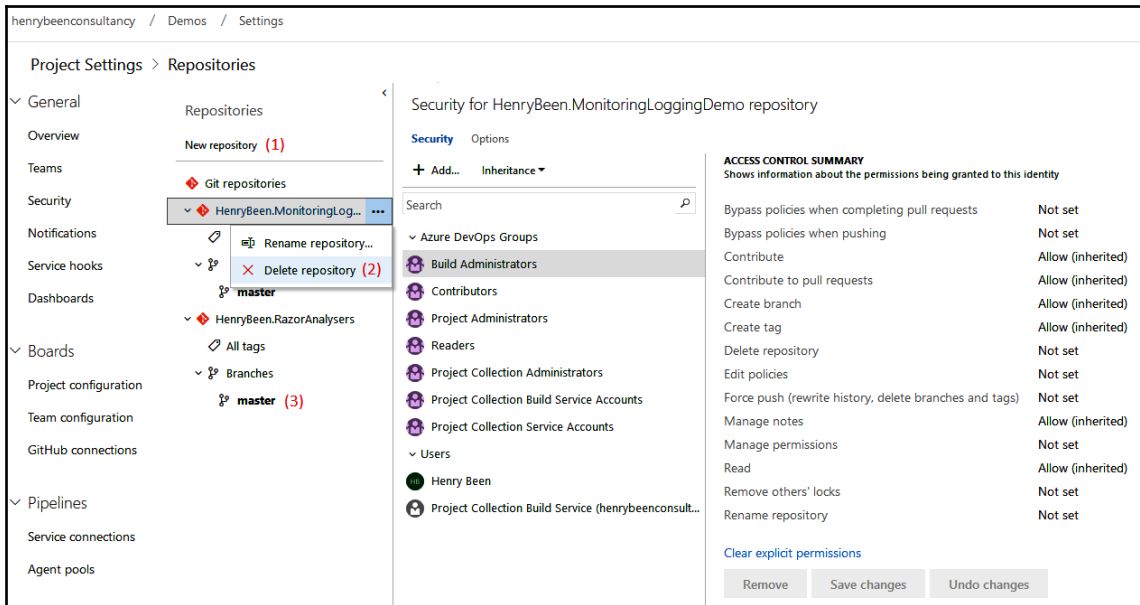
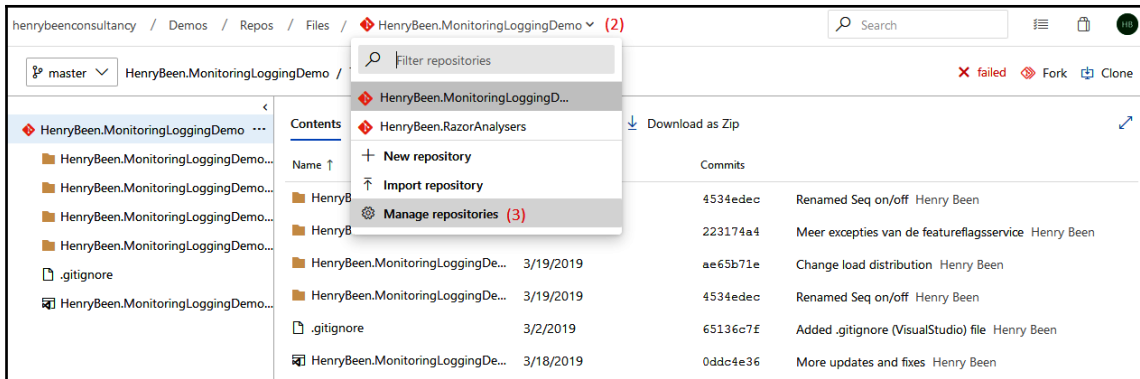


Chapter 2: Everything Starts with Source Control

The screenshot shows the Azure DevOps web interface. On the left is a navigation sidebar with options like Overview, Boards, Repos (1), Files, Commits, Pushes, Branches, Tags, Pull requests, Pipelines, Test Plans, and Artifacts. The main content area is titled 'Clone to your computer' and offers several options: cloning via HTTPS or SSH, generating Git credentials, cloning in VS Code, or pushing an existing repository from the command line (with a terminal snippet showing `git remote add origin https://myacgdemos@dev.azure.com/myacgdemos/Miniboard/_git/De...` and `git push -u origin --all`). Below this is an 'or import a repository' section with an 'Import (2)' button, and an 'or initialize with a README or gitignore' section with 'Add a README', 'Add a .gitignore: None', and 'Initialize' buttons. An 'Import a Git repository' dialog box is open in the foreground, showing a truck icon, a 'Source type' dropdown set to 'Git', a 'Clone URL *' field containing `https://github.com/henrybeen/MonitoringLogging.UriShortnerDemd (3)`, and a 'Requires authorization' checkbox. The dialog has an 'Import (4)' button and a 'Close' button.







henrybeenconsultancy / Demos / Settings

Project Settings > Policies

General Policies for: Demos > HenryBeen.RazorAnalysers > master

Overview Save changes Discard changes

Teams

Security

Notifications

Service hooks

Dashboards

Boards

Project configuration

Team configuration

GitHub connections

Pipelines

Service connections

Agent pools

Retention and parallel jobs

Release retention

Repos

Repositories

Policies

Test

Retention

Protect this branch

- Setting a Required policy will enforce the use of pull requests when updating the branch
- 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 pull requests are completed.

Build validation
Validate code by pre-merging and building pull request changes

+ Add build policy

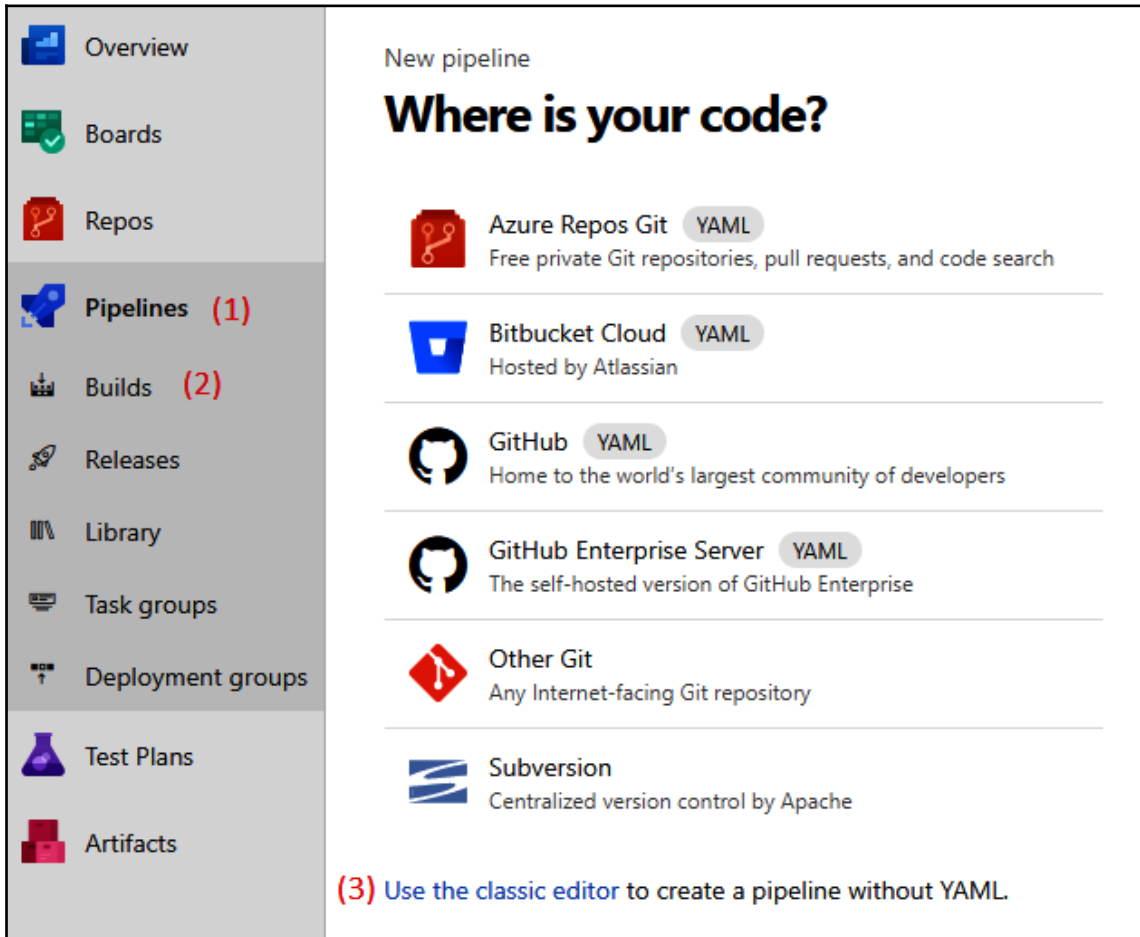
Require approval from additional services
Require other services to post successful status to complete pull requests. [Learn more](#)

+ Add status policy

Automatically include code reviewers
Include specific users or groups in the code review based on which files changed.

+ Add automatic reviewers

Chapter 3: Moving to Continuous Integration



Overview

Boards

Repos

Pipelines (1)

Builds (2)

Releases

Library

Task groups


Deployment groups


Test Plans


Artifacts


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 Internet-facing Git repository

 **Subversion**
Centralized version control by Apache

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

Overview Boards Repos Pipelines Builds Releases Library Task groups Deployment groups Test Plans Artifacts

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

Pipeline Build pipeline

Get sources Miniboard master

Agent job 1 Run on agent

Agentless job Run on server

Agent job (1) View YAML Remove

Display name * Agent job 1 (1)

Agent selection ^ (2) Agent pool (2) | Manage

<inherit from pipeline>

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

+ Add

(3) Execution plan ^

Parallelism (1)

None Multi-configuration Multi-agent

Number of agents * (1)

2

Continue on error

Timeout * (1)

0

Job cancel timeout * (1)

0

(4) Dependencies ^

Select dependencies (4)

Additional options ^

Allow scripts to access the OAuth token (1)

Run this job (1)

(5) Only when all previous jobs have succeeded

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

Pipeline Build pipeline

Get sources Miniboard master

Agent job 1 Run on agent (1)

dotnet restore .NET Core

dotnet build .NET Core

dotnet test .NET Core

dotnet publish .NET Core

Add tasks Refresh publish build

dotnet restore, build, test, publish for webapplications

Publish Build Artifacts Publish build artifacts to Azure Pipelines/TFSS or a file share Add (2)

Publish Code Coverage Results Publish Cobertura or JaCoCo code coverage results from a build

.NET Core Build, test, package, or publish a dotnet application, or run a custom dotnet command. For package commands, supports NuGet.org and authenticated feeds like Package Management and MyGet.

Marketplace ^

Publish Power BI File Build and Release Management tasks publishing a PowerBI file to PowerBI.

Publishing Tasks for DocumentDB A build and release extension that allows you to publish source files to a DocumentDB instance in Azure.

Publish Stream Analytics Transformation Build and Release Management tasks for publishing a Stream Analytics Transformation.

History Save & queue Discard Summary Queue ...

Publish Build Artifacts (1) Link settings View YAML Remove

Task version 1.* (3)

Display name * Publish Artifact: drop

Path to publish * (1) \$(Build.ArtifactStagingDirectory)

Artifact name * (1) drop

Artifact publish location * (1) Azure Pipelines/TFSS

Control Options ^

Output Variables ^

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

Pipeline
Build pipeline

Get sources
DevSecOps.SecuringSourceControl master

Agent job 1
Run on agent

- Prepare analysis on SonarCloud**
Prepare Analysis Configuration
- Use NuGet 5.0.0
NuGet Tool Installer
- NuGet restore
NuGet
- Build solution ExistingInfrastructure.sln
Visual Studio Build
- WhiteSource Bolt
WhiteSource Bolt
- Run Code Analysis
Run Code Analysis
- Run CredScan
CredScan (Preview)
- Run MpCmdRun.exe
AntiMalware Scanner (Preview)
- Publish Security Analysis Logs
Publish Security Analysis Logs (Preview)
- Post Analysis
Post Analysis (Preview)
- Publish Artifact: drop
Publish Build Artifacts

Prepare Analysis Configuration | Link settings | View YAML | Remove

Task version: 1.*

Display name *
Prepare analysis on SonarCloud

SonarCloud Service Endpoint * | Manage (2)

SonarCloud (1)
SonarCloud

henrybeenconsultancy (henrybeenconsultancy)

Choose the way to run the analysis *
 Integrate with MSBuild Integrate with Maven or Gradle Use standalone scanner

Project Key *
9553162662a3db598f013d6c6c934c2b934c39b0

Project Name
Secrets.ExistingInfrastructure

Project Version
1.0

Advanced
Control Options
Output Variables

The screenshot shows the 'Project Settings' interface in Azure DevOps. The left sidebar contains navigation options: Overview, Boards, Repos, Pipelines, Test Plans, and Artifacts. The main area is titled 'Project Settings' and has a sub-section for 'Service connections (2)'. A modal dialog titled 'Update Authentication for DevSecOps Demos' is open, showing the following details:

- Connection name: DevSecOps Demos
- Scope level: Subscription
- Subscription: Visual Studio Enterprise (59ba76e9-e5a6-400e-8a67-ec9b4be7
- Resource Group: DevSecOps

Below the form, it states: 'Subscriptions listed are from Azure Cloud' and 'The Azure service principal key will be renewed for this service connection. To update using an existing service principal, use the full version of the service connection dialog.' There are 'OK' and 'Close' buttons at the bottom right of the dialog.

The screenshot shows the 'Variables' tab for a pipeline named 'Miniboard-CI'. The interface includes tabs for 'Tasks', 'Variables', 'Triggers', 'Options', 'Retention', and 'History'. There are action buttons for 'Save & queue', 'Discard', 'Summary', and 'Queue'. The main content is a table of pipeline variables:

Name ↑	Value	Settable at queue time (2)
system.collectionId	e2b7b022-25d0-40b9-a6d4-e7d87dc77761	
system.debug	false	<input checked="" type="checkbox"/>
system.definitionId	4	
system.teamProject	Miniboard	
secretVariable	*****	<input type="checkbox"/>

At the bottom of the table, there is a '+ Add' button.

Variable group | Save | Clone | Security(2) ? Help

Properties

Variable group name
New variable group 18-mej

Description

Allow access to all pipelines

Link secrets from an Azure key vault as variables ⓘ

Variables

Name ↑	Value	🔒
+ Add		

Tasks Variables **Triggers (1)** Options Retention History | Save & queue Discard Summary Queue ...

Continuous integration

Miniboard
Enabled

Scheduled (5) + Add

No builds scheduled

Build completion (6) + Add

Build when another build completes

Miniboard

Enable continuous integration (2)

Batch changes while a build is in progress (3)

Branch filters (4)

Type Branch specification

Include master 🗑️

+ Add

Path filters

+ Add

Tasks Variables Triggers **Options (1)** Retention History | Save & queue Discard Summary Queue ...

Build properties

Define general build pipeline settings

Description

Build number format (2) ⓘ

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 Disabled

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

Create work item on failure Disabled

Create a work item for each failed build

Build job (3)

Define build job authorization and timeout settings

Build job authorization scope ⓘ

Project collection

Build job timeout in minutes ⓘ

60

Build job cancel timeout in minutes ⓘ

5

Demands (4)

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

Name	Condition	Value
+ Add		

The screenshot displays the Azure DevOps interface for a pipeline named "CDforFunctions6". The left-hand pane shows the pipeline structure, including "Get sources", "Agent job 1", and several tasks: "Build project", "Archive files", "Publish Artifact: function-binaries", "Copy Files to: \$(artifactstagingdirectory)\arm-templates", and "Publish Artifact: function-binaries copy". The "Copy Files to: \$(artifactstagingdirectory)\arm-templates" task is selected, and a context menu is open over it, offering actions such as "Enable selected task(s)", "Disable selected task(s)", "Remove selected task(s)", "Clone task(s)", "Create task group (2)", and "Manage task group".

The right-hand pane shows the configuration for the "Publish build artifacts" task. The configuration includes:

- Task version:** 1.*
- Display name:** Publish Artifact: function-binaries copy
- Path to publish:** \$(artifactstagingdirectory)\arm-templates
- Artifact name:** arm-templates
- Artifact publish location:** Azure Pipelines
- Advanced:** (expanded)
- Control Options:** (expanded)
- Output Variables:** (expanded)

The screenshot displays a build system interface. On the left, a job summary for "#1086: Resourcenames fixen" is shown, indicating it was manually run at 20:43 by Henry Been. Below this, a list of steps for "Agent job 1" is provided, all of which are marked as "succeeded". The steps include: Prepare job, Initialize job, Checkout, Use NuGet 5.0.0, NuGet restore, Build solution Secrets.ARM\Templates.sln, Publish Artifact: binaries, Copy Files to: \$(build.artifactsstagingdirectory)/armtemplate, Publish Artifact: template, Post-job: Checkout, Finalize Job, and Report build status.

On the right, a terminal window titled "Copy Files to: \$(build.artifactsstagingdirectory)/armte..." shows the execution of the "Copy Files" task. The terminal output includes a section header, task details (Description, Version, Author, Help), and a list of files copied from the source to the target directory. The files are: C:\Agent02_work\5a\ResourceGroup\Website.json and C:\Agent02_work\5a\ResourceGroup\Website.parameters.json.

```
1 ##[section]Starting: Copy Files to: $(build.artifactsstagingdirectory)/armtemplate
2 =====
3 Task : Copy Files
4 Description : Copy files from source folder to target folder using match patterns (The match patterns
5 Version : 2.117.2
6 Author : Microsoft Corporation
7 Help : [More Information](https://go.microsoft.com/fwlink/?linkID=788389)
8 =====
9 found 2 files
10 Copying C:\Agent02\_work\5a\ResourceGroup\Website.json to $(build.artifactsstagingdirectory)/armtempl
11 Copying C:\Agent02\_work\5a\ResourceGroup\Website.parameters.json to $(build.artifactsstagingdirec
12 ##[section]Finishing: Copy Files to: $(build.artifactsstagingdirectory)/armtemplate
13
```

Project Settings

- General
- Overview
- Teams
- Security
- Notifications
- Service hooks
- Dashboards
- Boards
- Project configuration
- Team configuration
- GitHub connections
- Pipelines
- Service connections
- Agent pools
- Parallel jobs
- Settings
- Release retention
- Repos
- Repositories
- Policies
- Test
- Retention

Policies for: Miniboard > Miniboard > master

Save changes Discard changes

Protect this branch

- Setting a Required policy will enforce the use of pull requests when updating the branch
- 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 pull requests

Build validation

Validate code by pre-merging and building pull request changes

+ Add build policy (1)

Require approval from additional services

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

+ Add status policy

Automatically include code reviewers

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

+ Add automatic reviewers

Add build policy

Build pipeline*
Miniboard-CI (2)

Path filter (optional) ⓘ
No filter set

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 12 hours if master has been updated

Never

Display name

Save Cancel

#1086: Resourcenames fixen Release Artifacts

Manually run 12 mei at 20:43 by Henry Been Secrets.ArmTemplates master 079735e Retained by release

Logs **Summary** Tests WhiteSource Bolt Build Report

Progression

- 1 Deployments**
1 Succeeded
Show More | View All (1)
- 2 Build artifacts published**
 - binaries
File container
 - template
File container
- Build pipeline succeeded**
0 error(s) / 0 warning(s)
- Manually queued**
Henry Been requested 12 mei
- Associated changes**
1 commit(s)
Resourcenames fixen
Henry Been authored 079735e 12 mei

Queued
12 mei

Started after 2s in queue
12 mei

Completed after 31s
12 mei

Builds since 12 mei at 20:01

Connect **Select** Configure Review

New pipeline

Select a repository

Filter by keywords Miniboard

Miniboard

Connect **Select** **Configure** Review

New pipeline

Configure your pipeline

- ASP.NET Core
Build and test ASP.NET Core projects targeting .NET Core.
- 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

Connect **Select** **Configure** Review

New pipeline

Review your pipeline YAML

```
build.yml
1 pool:
2   - name: Hosted-VS2017
3 steps:
4   - task: DotNetCoreCLI@2
5     displayName: 'dotnet restore'
6     inputs:
7     - command: restore
8     - projects: '**/*.csproj'
9
10  - task: DotNetCoreCLI@2
11    displayName: 'dotnet build'
12    inputs:
13    - projects: '**/*.csproj'
```

Select an existing YAML file

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

Branch master

Path /build.yml

Miniboard

ArtifactStagingDirectory: 'drop'

Overview

Boards

Repos

Pipelines

Builds

Releases

Library

Task groups

Deployment groups

Test Plans

Artifacts

Project settings <<

master Miniboard / build.yml *

```
1 pool:
2   name: Hosted-VS2017
3 steps:
4   - task: DotNetCoreCLI@2
5     displayName: 'dotnet restore'
6     inputs:
7       command: restore
8       projects: '**/*.csproj'
9
10  - task: DotNetCoreCLI@2
11    displayName: 'dotnet build'
12    inputs:
13      projects: '**/*.csproj'
14  - task: configuration
15    command
16  - task: custom
17    displayName: 'nugetConfigPath'
18    inputs:
19      command: test
20      projects: '**/*.csproj'
21
22  - task: DotNetCoreCLI@2
23    displayName: 'dotnet publish'
24    inputs:
25      command: publish
26      arguments: '--output $(Build.ArtifactStagingDirectory)'
27
28  - task: PublishBuildArtifacts@1
29    displayName: 'Publish Artifact: drop'
30
31
```

Tasks

Search tasks

- .NET Core
Build, test, package, or publish a dotnet applico...
- Android Signing
Sign and align Android APK files
- Ant
Build with Apache Ant
- App Center Distribute
Distribute app builds to testers and users via App ...
- App Center Test
Test app packages with Visual Studio App Center.
- Archive Files
Archive files using compression formats such as .7...
- Azure App Service Deploy
Update Azure App Services on Windows, Web Ap...
- Azure App Service Manage
Start, Stop, Restart, Slot swap, Install site extensio...
- Azure CLI
Run Azure CLI commands against an Azure subscri...
- Azure Cloud Service Deployment
Deploy an Azure Cloud Service
- Azure Database for MySQL Deployment
Run your scripts and make changes to your Azure...

The screenshot displays the 'Project Settings' interface in Azure DevOps. On the left is a navigation sidebar with categories: Overview, Boards, Repos, Pipelines, Test Plans, and Artifacts. The main area is titled 'Project Settings' and contains a list of settings under 'General', 'Boards', 'Pipelines', and 'Repos'. The 'Agent pools' section is highlighted in red, with a '(2)' next to it. To the right, the 'Agent pools' page is visible, showing a list of existing agent pools with columns for Name, Queued jobs, and Running jobs. An 'Add pool' button with a '(3)' notification is in the top right. A modal dialog titled 'Add agent pool' is open, containing instructions, radio buttons for 'New' (selected) and 'Existing', a text input for 'New agent pool name', and a checked checkbox for 'Grant access permission to all pipelines'.

Name	Queued jobs	Running jobs
Hosted Azure Pipelines		
Hosted macOS Azure Pipelines		
Hosted macOS High Sierra Azure Pipelines		
Hosted Ubuntu 1604 Azure Pipelines		
Hosted VS2017 Azure Pipelines		
Hosted Windows 2019 with VS2019 Azure Pipelines		
Hosted Windows Container Azure Pipelines		
Self Hosted Linux Henry Been		
Self Hosted Windows Henry Been		

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("$HOME\Downloads
\vsts-agent-win-x64-2.150.3.zip", "$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](#)

Project Settings

- General
- Overview
- Teams
- Security
- Notifications
- Service hooks
- Dashboards
- Boards
- Project configuration
- Team configuration
- GitHub connections
- Pipelines
- Service connections
- Agent pools (1)**
- Retention and parallel jobs

Self Hosted Windows

Update all agents **New agent**

Jobs **Agents (2)** Details Security

Name	Last run	Current status	Enabled
agent01 ● Online	maandag	Idle	<input checked="" type="checkbox"/> On (3)
agent02 ● Online	maandag	Idle	<input type="checkbox"/> Off

Update agent

Delete (4)

Azure DevOps
 henrybeenconsultancy / Settings / Agent pools / Self Hosted Windows / agent01

Organization Settings
 henrybeenconsultancy

General

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

Security

- Policies
- Permissions

Boards

- Process

Pipelines

- Agent pools (1)
- Settings
- Deployment pools
- Parallel jobs
- OAuth configurations

← agent01

Jobs Capabilities (3)

User-defined capabilities

No user-defined capabilities
 Add a new capability

System capabilities

Search by keyword

Name	Value
Agent.Name	agent01
Agent.Version	2.149.2
Agent.ComputerName	windows01
Agent.HomeDirectory	C:\agent01
Agent.OS	Windows_NT
Agent.OSArchitecture	X64
Agent.OSVersion	10.0.17763
ALLUSERSPROFILE	C:\ProgramData
APPDATA	C:\windows\ServiceProfiles\NetworkService\AppData\Roaming

Chapter 4: Continuous Deployment

The screenshot displays the Azure DevOps interface for creating a new release pipeline. The left pane shows the pipeline configuration with two sections: (1) Artifacts, containing an 'Add an artifact' button and a 'Schedule not set' indicator; and (2) Stages, containing a 'Stage 1' box with a 'Select a template' button. The right pane, titled 'Select a template', offers options to start with an 'Empty job' or choose from a list of featured templates. These templates include: 'Azure App Service deployment', 'Deploy a Java app to Azure App Service', 'Deploy a Node.js app to Azure App Service', 'Deploy a PHP app to Azure App Service and Azure Database for MySQL', 'Deploy a Python app to Azure App Service and Azure database for MySQL', 'Deploy to a Kubernetes cluster', and 'IIS website and SQL database deployment'. An 'Others' section at the bottom lists 'Azure App Service deployment with continuous monitoring'.

All pipelines > New release pipeline (1)

Pipeline Tasks Variables Retention Options History

Artifacts | + Add

Stages | + Add

Build Add an artifact (1)

Schedule not set

Stage 1
1 job, 0 task

Add an artifact

Source type

Build Azure Repos ... GitHub TFVC

5 more artifact types

Project *
Miniboard (2)

Source (build pipeline) *
Miniboard-CI (3)

Default version *
Latest (4)

Source alias *
_Miniboard-CI (5)

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

Add (6)

Pipeline Tasks Variables Retention Options History

Artifacts | + Add

Stages | + Add

_Miniboard-CI (1)

Schedule not set (6)

Stage 1
1 job, 0 task

Continuous deployment trigger

Build: _Miniboard-CI

Enabled (2)
Creates a release every time a new build is available.

Build branch filters

Type Build branch Build tags

Include master (4)

+ Add (3)

Pull request trigger

Build: _Miniboard-CI

Disabled (5)

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

All pipelines > New release pipeline (1) Save Create release View releases ...

Pipeline Tasks Variables Retention Options History

Artifacts | + Add

Stages | + Add (1)

Miniboard-CI

Schedule not set

Stage 1
1 job, 0 task (4)

Stage Delete (2) Move ...

Stage 1

Properties ^

Name and owners of the stage

Stage name

Stage 1 (3)

Stage owner

henrybeenconsultancy@outlook.com (4)

Stages | + Add

Stage 1
1 job, 2 tasks

Stage 2
1 job, 0 task

Pre-deployment conditions

Stage 1

Triggers ^

Define the trigger that will start deployment to this stage

Select trigger (2)

After release

After stage

Manual only

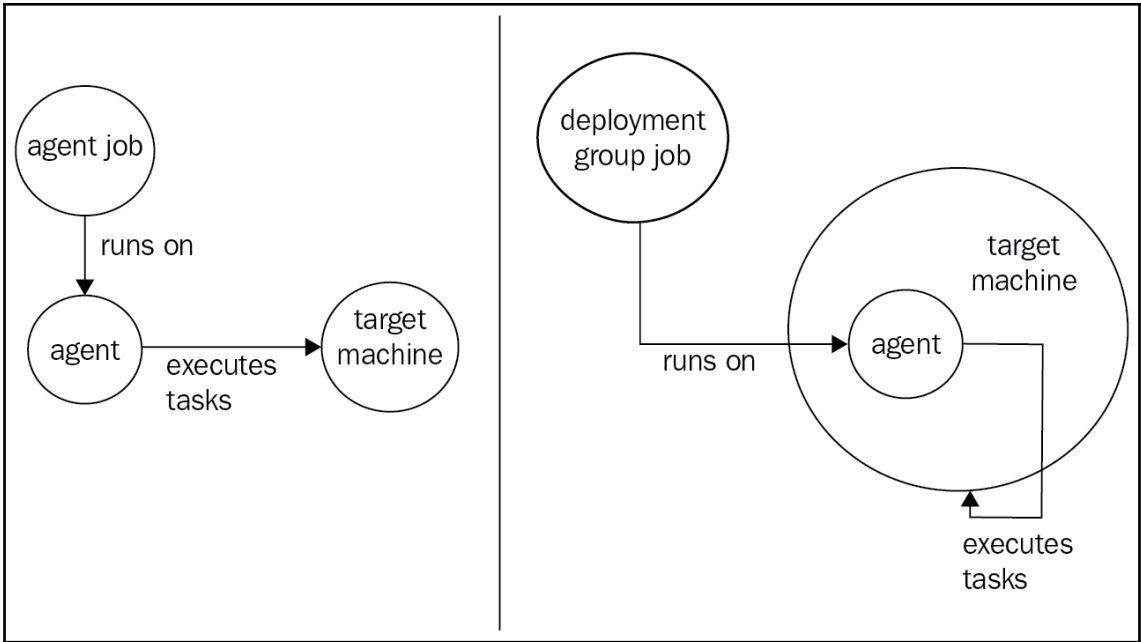
Artifact filters (1) Disabled (3)

Schedule (1) Disabled (4)

Pull request deployment (1) Disabled (5)

The screenshot shows the Azure DevOps pipeline editor interface. At the top, there are tabs for Pipeline, Tasks, Variables, Retention, Options, and History. The main area displays a pipeline with three stages: Pull Request (6 jobs, 11 tasks), Test (4 jobs, 8 tasks), and Production (4 jobs, 8 tasks). On the left, there are artifacts and a 'Schedule not set' option. On the right, a 'Pre-deployment conditions' panel is open, showing settings for triggers, approvals, and timeout. The 'Pre-deployment approvals' section is set to 'Enabled' and lists 'Henry Been' as an approver. The 'Timeout' is set to 30 days. The 'Approval policies' section has three options: 'The user requesting a release or deployment should not approve it', 'Revalidate identity of approver before completing the approval.', and 'Skip approval if the same approver approved the previous stage.'

The screenshot shows the 'Gates' and 'Deployment queue settings' panels in the Azure DevOps pipeline editor. The 'Gates' panel is titled 'Gates' and is currently 'Enabled'. It allows defining gates to evaluate before deployment. The 'The delay before evaluation' is set to 5 minutes. There is one deployment gate named 'Query Work Items', which is also 'Enabled'. The gate configuration includes: 'Query Work Items' as the name, 'Task version' set to '0.*', 'Display name' set to 'Query Work Items', 'Query' set to 'Open bugs', and 'Upper threshold' set to '0'. The 'Deployment queue settings' panel is titled 'Deployment queue settings' and is used to define behavior when multiple releases are queued. It includes: 'Number of parallel deployments' set to 'Specific', 'Maximum number of parallel deployments' set to '1', and 'Subsequent releases' set to 'Deploy all in sequence'.



Demos +

- Overview
- Boards
- Repos
- Pipelines (1)**
- Builds
- Releases
- Library
- Task groups
- Deployment groups (2)**
- WhiteSource Bolt
- Test Plans
- Artifacts

Deployment groups > Demo

Deployment group name:

Description:

Deployment pool: Demos-Demo [Manage](#)

[Create](#) (3)

Type of target to register: Windows [System prerequisites](#)

Registration script (PowerShell)

```

$ErrorActionPreference="Stop"; If (-NOT ([Security.Principal.WindowsPrincipal]
[Security.Principal.WindowsIdentity]::GetCurrent()).IsInRole ([Security.Principal.WindowsBuiltInRole]
"Administrator")) { throw "Run command in an administrator PowerShell prompt"; } If ($PSVersionTable.PSVersion
-lt (New-Object System.Version("3.0")) { throw "The minimum version of Windows PowerShell that is required by
the script (3.0) does not match the currently running version of Windows PowerShell." }; If (-NOT (Test-Path
$env:SystemDrive\azagent*)) { mkdir $env:SystemDrive\azagent* }; cd $env:SystemDrive\azagent*; for ($i=1; $i
-lt 100; $i++) { $destFolder="A"+$i.ToString(); If (-NOT (Test-Path $destFolder)) { mkdir $destFolder; cd
$destFolder; break; }; $agentZip="$PWD\agent.zip"; $defaultProxy=
[System.Net.WebRequest]::DefaultWebProxy; $securityProtocol=[Net.SecurityProtocolType]::Tls12;
[Net.ServicePointManager]::SecurityProtocol=$securityProtocol; $webClient=New-Object Net.WebClient;
$uri="https://www.sagentpackage.azureedge.net/agent/2.153.2/wata-agent-win-x64-2.153.2.zip"; If ($defaultProxy
-and (-not $defaultProxy.IsBypassed($uri))) { $webClient.Proxy=New-Object
Net.WebProxy($defaultProxy.GetProxy($uri).OriginalString, $true); }; $webClient.DownloadFile($uri,
$agentZip); Add-Type -AssemblyName System.IO.Compression.FileSystem;
[System.IO.Compression.ZipFile]::ExtractToDestination($agentZip, "$PWD"); .\config.cmd --deploymentgroup
--deploymentgroupname "Demo" --agent $env:COMPUTERNAME --runaservice --work 'work' --url
'https://dev.azure.com/henrybeenconsultancy/' --projectname 'Demos'; Remove-Item $agentZip;
                    
```

Use a personal access token in the script for authentication [?](#)

[Copy script to the clipboard](#) [Run from an administrator PowerShell command prompt](#)

Pipeline Tasks Variables Retention Options History

Test
Deployment process Remove

Agent job
Run on agent

Azure App Service Deploy: hb-devsecopts
Azure App Service Deploy

Deployment group job
Run on deployment group

Command Line Script (3)
Command Line

- Add an agent job
- Add a deployment group job (1)
- Add an agentless job

[Learn more about jobs](#)

Deployment group * ⓘ

Demo (2) [v] [refresh] [gear]

Required tags ⓘ

No matching targets in Demo deployment group

Targets to deploy to in parallel ⓘ

Multiple One target at a time

Maximum number of targets in parallel
0 ————— 100% targets (0)

Timeout * ⓘ

0

Job cancel timeout * ⓘ

1

Artifact download ^

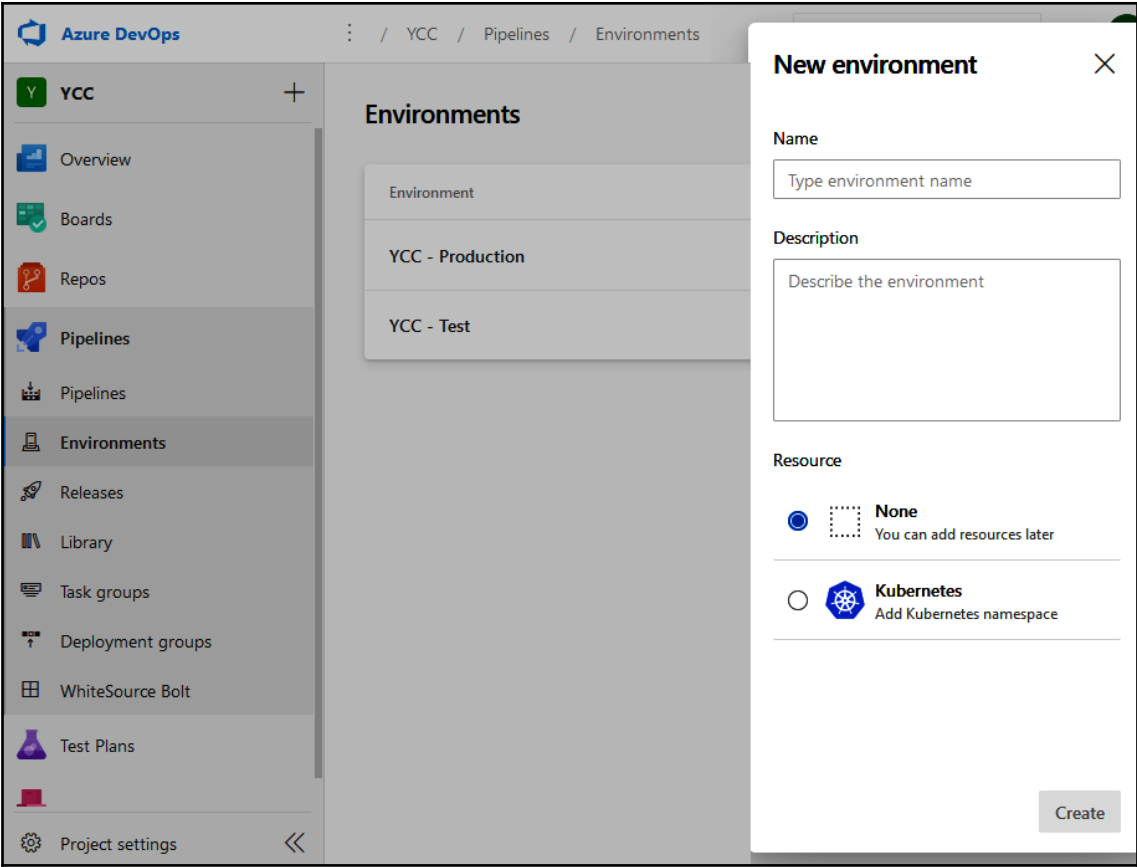
_DevSecOps.SecuringBuilds Latest Selected all artifacts

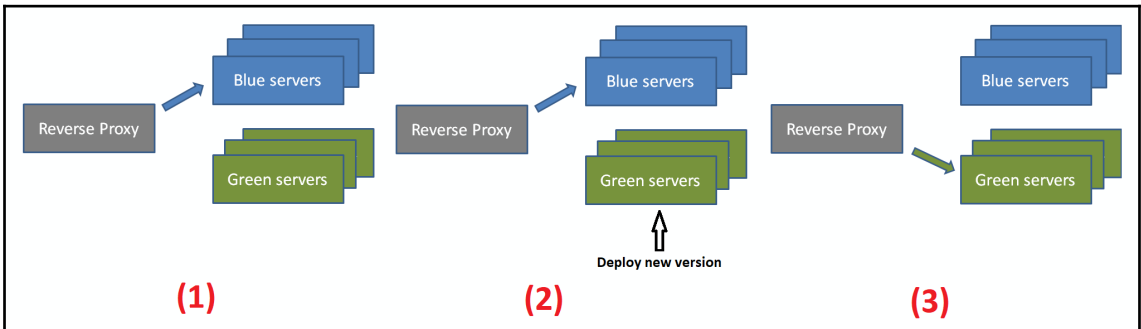
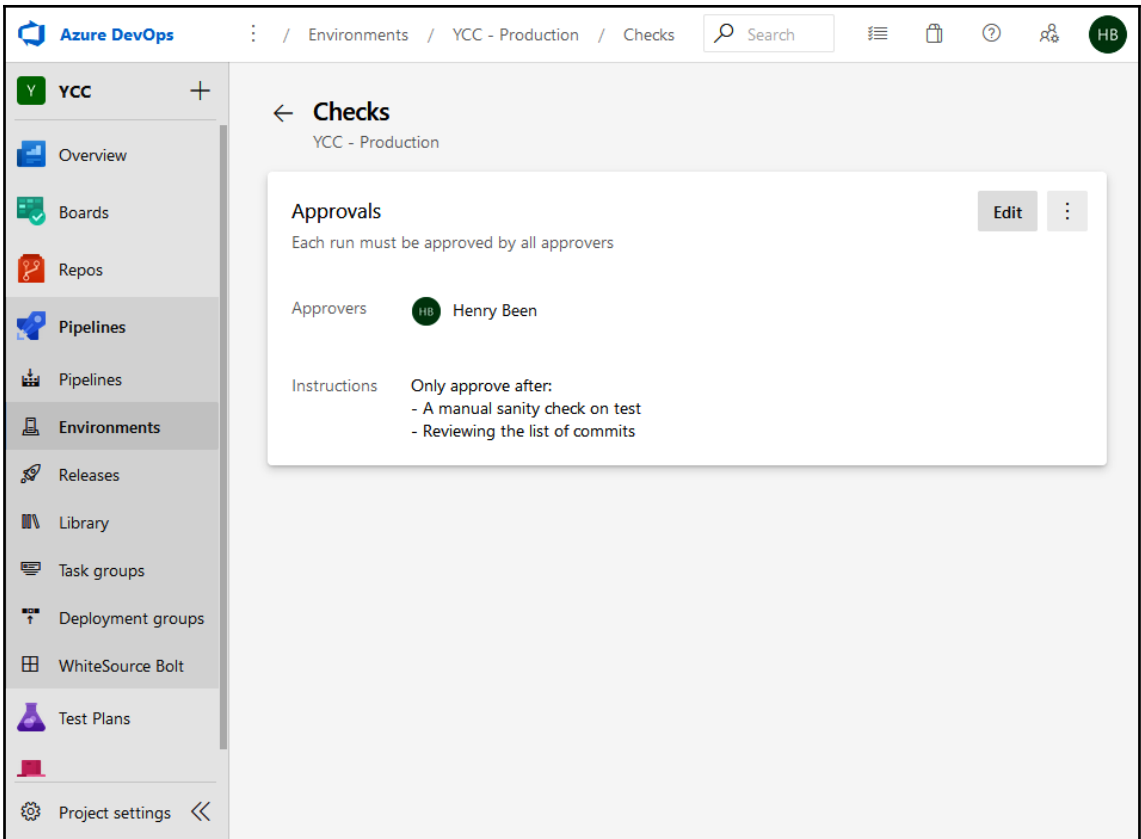
Additional options ^

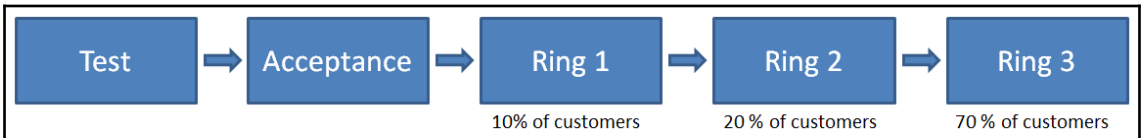
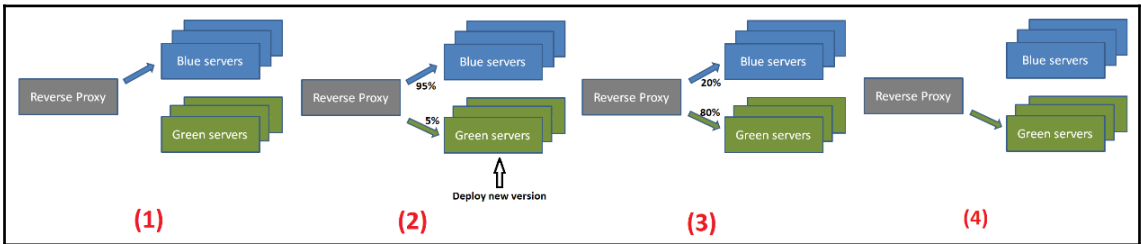
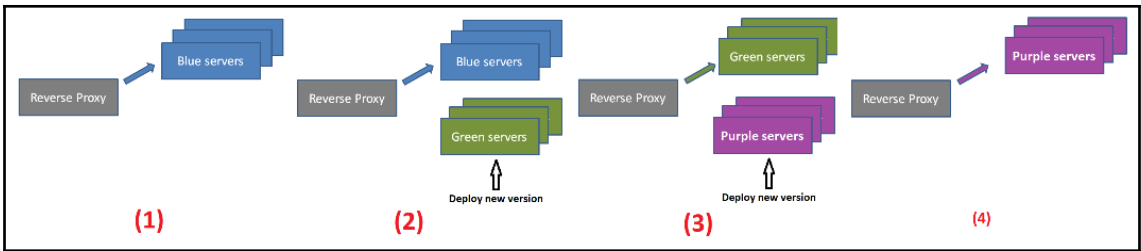
Allow scripts to access the OAuth token ⓘ

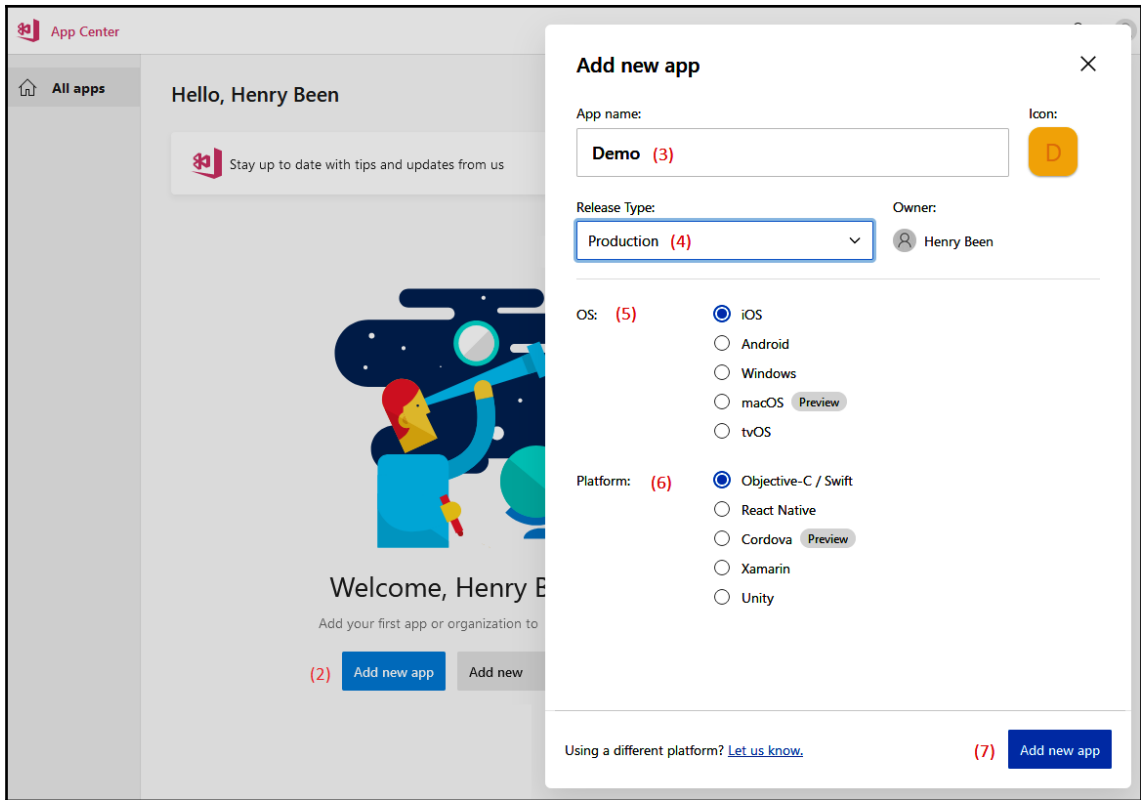
Run this job ⓘ

Only when all previous jobs have succeeded [v]









App Center jfversluis / MSFT NL Park / Distribute / Stores / Distribution Store Details

MSFT NL Park (Android)

Stores

Beta [Publish to Google Play](#)

GOOGLE PLAY

Production

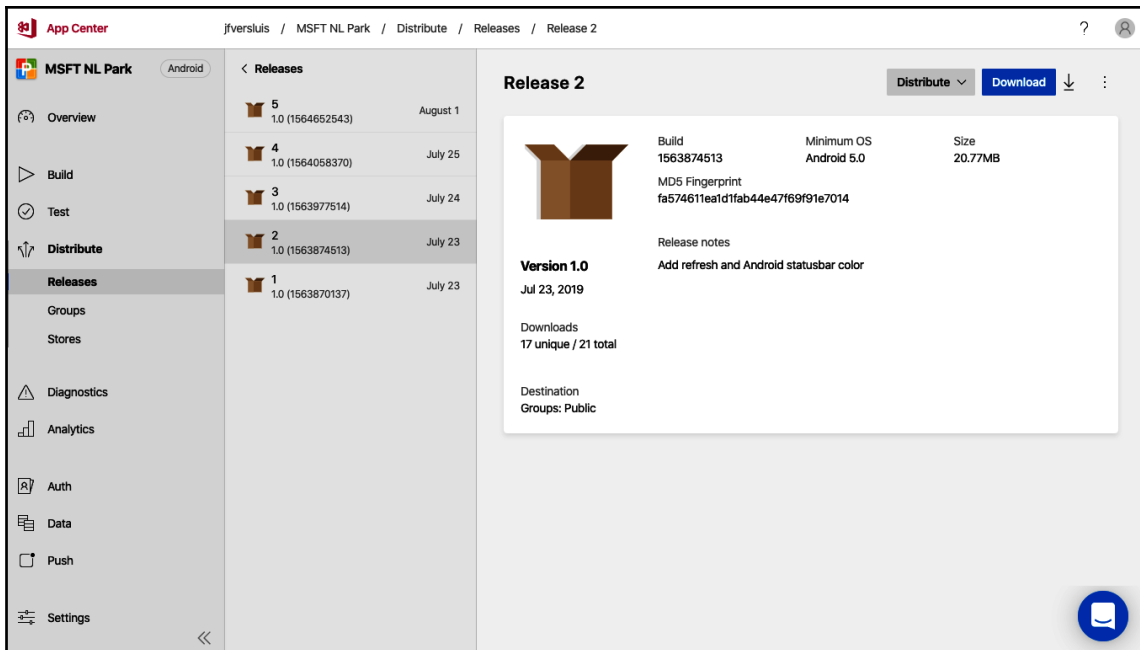
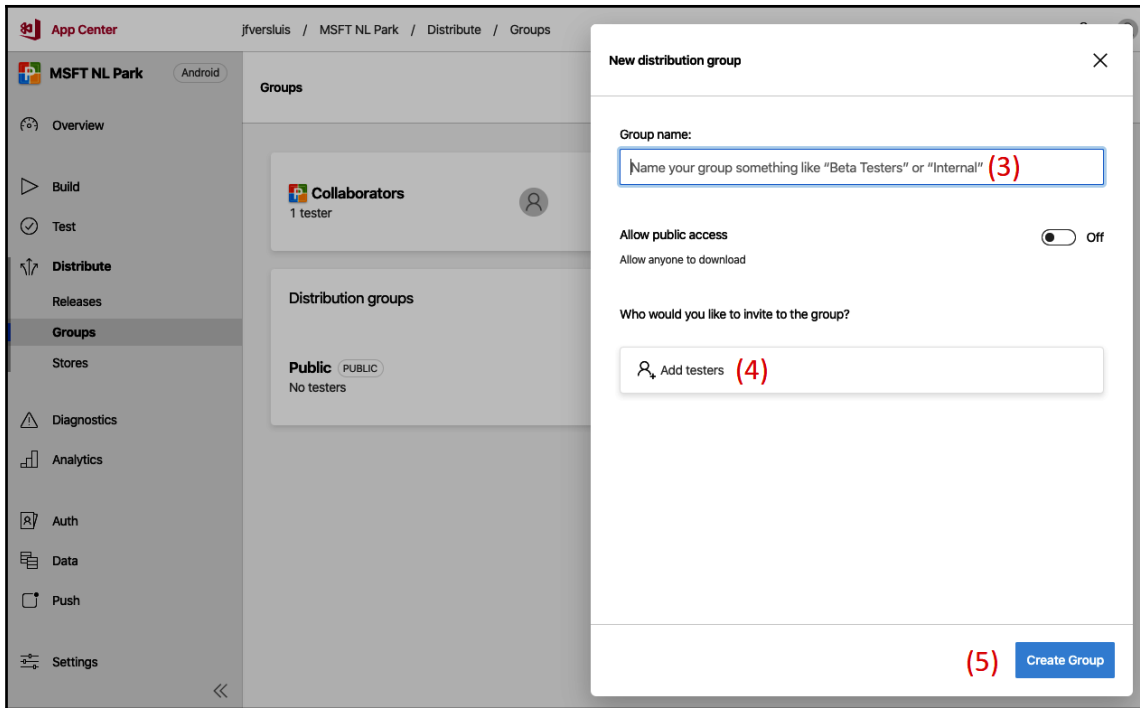
Beta

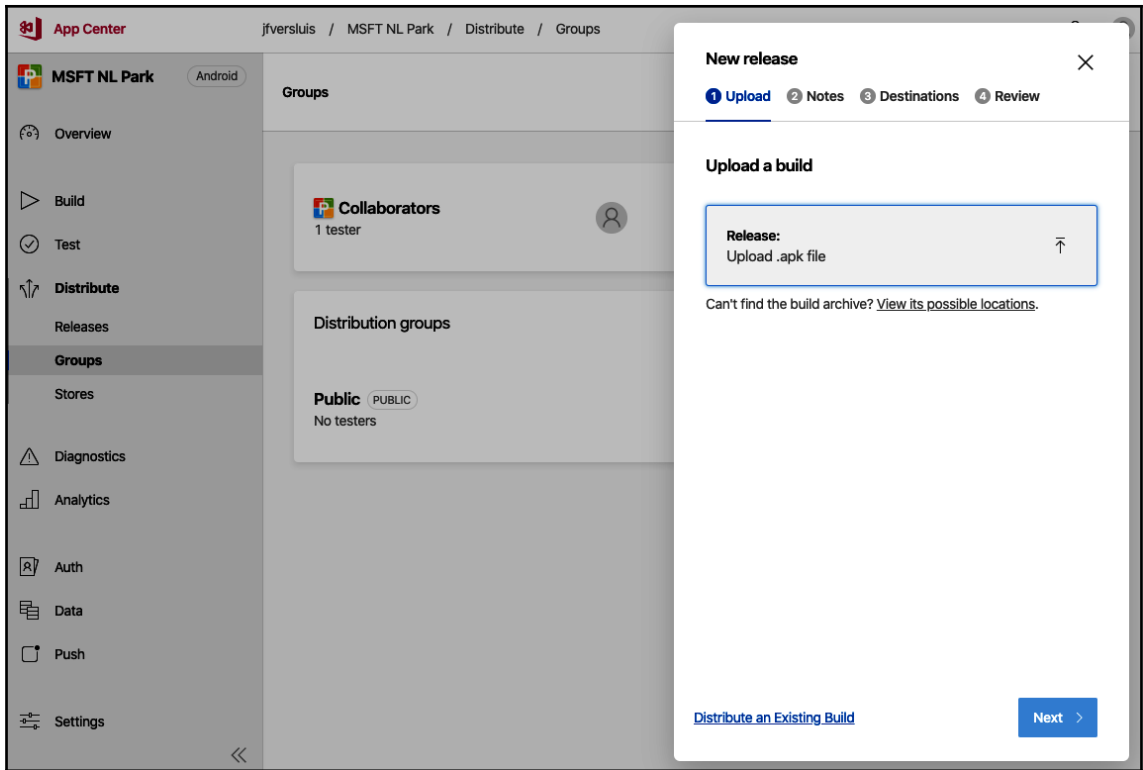
Alpha

Build: MSFT NL Park 1.0 (1564652543) Min OS: 5.0 Size: 20.73MB STATUS: SUBMITTED

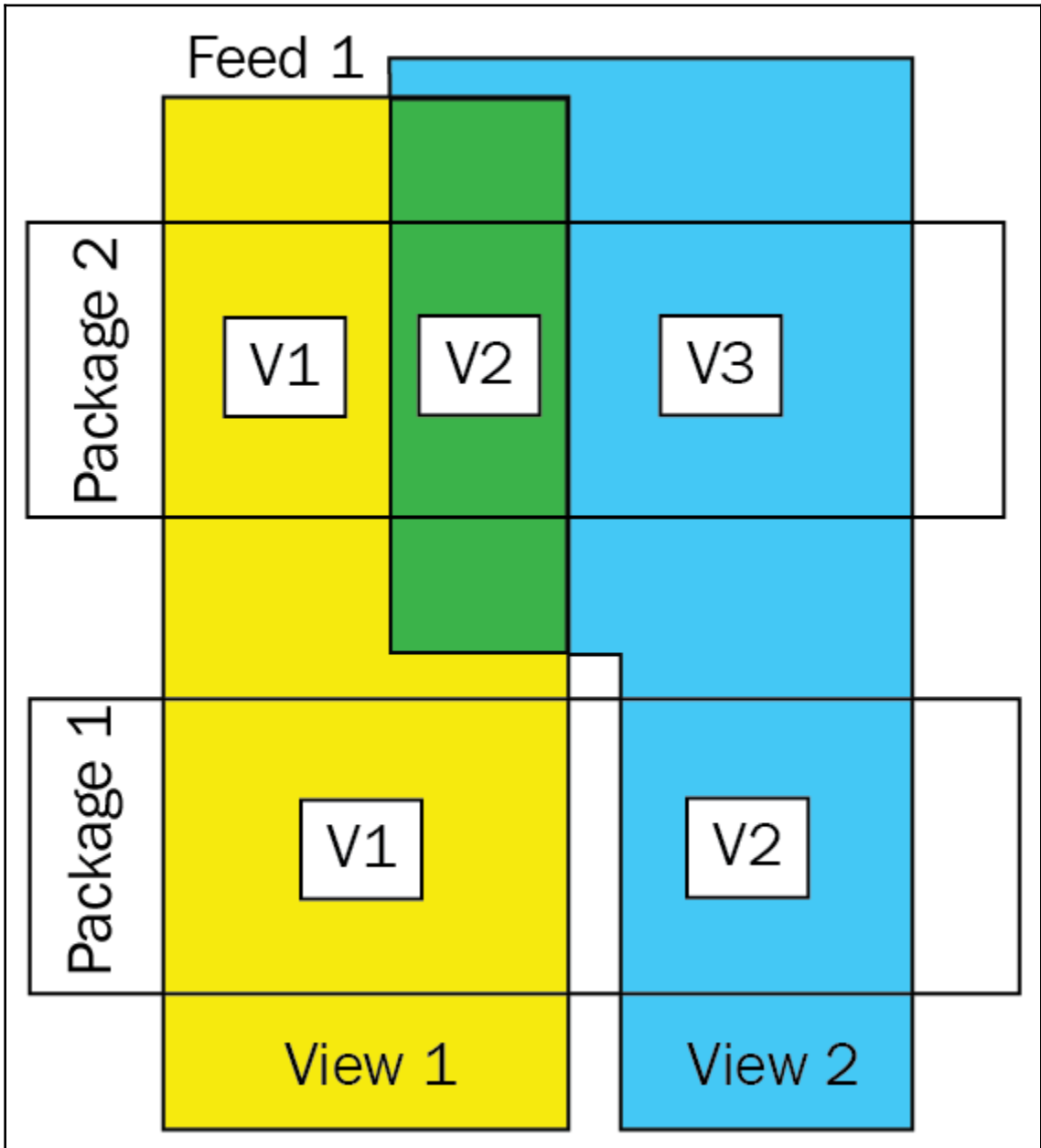
RELEASES

Release	Version	Date
5	1.0 (1564652543)	Aug 01, 11:49:40 a.m.
4	1.0 (1564058370)	Jul 25, 02:46:36 p.m.
3	1.0 (1563977514)	Jul 24, 04:18:41 p.m.





Chapter 5: Dependency Management



Create new feed ✕

Feeds host your packages and let you control permissions.

Name

demoFeed (2)

This name will appear in the URL for your feed

Project: Demos

New: The feed will be scoped to the Demos project. [Learn more about project-scoped feeds.](#) If this project is made public, its scoped feeds will also become public.

Visibility (3)

- Members of your Azure Active Directory**
Any member of your AAD can view the packages in this feed
- Members of azurespecialist**
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 (4)

- Include packages from common public sources**
For example: nuget.org, npmjs.com

Cancel Create (5)

myFeed > Feed settings

Feed details Permissions Views Upstream sources Delete feed (1)

Name: myFeed

Description:

Deleted packages

Because feeds are immutable, deleted package versions are shown by default as a reminder that the version number is taken and can't be published again. You can hide these versions, but the version numbers will continue to be reserved. When selected, deleted packages will be hidden from Administrators. Contributors and Readers never see deleted packages.

Hide deleted package versions (3)

Package sharing

Package badges enable you to share the latest version of a package in this feed anywhere you can share an image, like the project's home page or README file.

Enable package badges (4)

Retention policies

Enable package retention (5)

Delete old packages automatically by configuring retention policies. Packages promoted to a view will not be deleted.

Maximum number of versions per package

Days to keep recently downloaded packages

(6) Save Cancel

myFeed > Feed settings (1)

Feed details Permissions Views Upstream sources + Add users/groups(3) Delete (2)

User/Group	Role
Henry Been	Owner
[henrybeenconsultancy]\Project Collection Administrators	Owner
[Demos]\Project Administrators	Owner
Project Collection Build Service (henrybeenconsultancy)	Contributor
<input checked="" type="checkbox"/> [Demos]\Contributors	Contributor

Add users or groups

Users/groups

Search users and groups

Role

Owner

Contributor

Collaborator

Reader

Save Close

myFeed > Feed settings

Feed details Permissions **(1)** Views **(3)** Upstream sources **(5)** **(2)** + Add view Edit Delete Set as default view

Filter by View

View	Permissions	Default view
Local	Feed users; People in my organization	<input checked="" type="checkbox"/>
Prerelease	Feed users	<input type="checkbox"/>
Release	Feed users	<input type="checkbox"/>

Add a new view

Name

Visibility

People in my organization **(4)**

Specific people

Users/groups

Add

Make this view the default view

Save Close

myFeed > Feed settings

Feed details Permissions Views **(3)** Upstream sources **(2)** + Add upstream source Delete Move up Move down

Source	Location	Source type
npmjs	https://registry.npmjs.org/	Public source
NuGet Gallery	https://api.nuget.org/v3/index.json	Public source
PyPI	https://pypi.org/	Public source
Maven Central	https://repo.maven.apache.org/maven2/	Public source

Add a new upstream source

Upstream sources allow you to use packages from other Azure Artifacts feeds and public sources. Choose a feed type to get started.

Public source
Use packages from a public source like NuGet.org or npmjs.com.

Azure Artifacts feed
Use packages from Azure Artifacts feed.

Add Cancel

myNuGetFeed

+ New feed Connect to feed Recycle Bin **(1)**

Connect to feed

NuGet **(2)** Get packages using Visual Studio **(3)**

View (What's this?)

Package source URL **(4)**

[How do I set up this package source in Visual Studio?](#)

Push packages using NuGet.exe

Get the tools

[Download NuGet + Credential Provider](#)

Add this feed

```
nuget.exe sources Add -Name "myNuGetFeed" -Source "https://pkgs.dev.azure.com/henrybeenconsultancy/_packaging/myNuGetFeed/nuget/v3/index.json"
```

Push a package

```
nuget.exe push -Source "myNuGetFeed" -ApiKey AzureDevOps my_package.nupkg
```

[Need to use NuGet 2.x? I'm having trouble with authentication](#)

Close

The screenshot displays the Jenkins configuration page for a pipeline named 'Demos-Cl'. The left sidebar shows a task list under 'Agent job 1', with 'npm publish' selected. The main panel shows the configuration for this task:

- Task name:** npm
- Task version:** 1.*
- Display name:** npm publish
- Command:** publish
- Working folder that contains package.json:** (empty)
- Registry location:** Registry I select here (selected)
- Target registry:** myNpmFeed

Additional options like 'Destination registry and authentication', 'Advanced', 'Control Options', and 'Output Variables' are visible but collapsed.

Task version ▼

Display name *

Command * ⓘ ▼


Working folder that contains package.json ⓘ ...

Command and arguments * ⓘ



Custom registries and authentication ▼ _____



Control Options ▼ _____


Output Variables ▼ _____


Task version 




Display name *


Command * 
 


Working folder that contains package.json 
 


Destination registry and authentication 

Registry location 
 External npm registry (including other accounts/collections) Registry I select here

Target registry * 
  

Advanced 

Control Options 

Output Variables 

The screenshot shows the configuration for the 'Replace Tokens' task in an Azure DevOps pipeline. On the left, the pipeline structure is visible, including 'Get sources', 'Agent job 1', and several 'npm' tasks. The 'Replace Tokens' task is selected. The configuration panel on the right includes: 'Task version' set to '3.*', 'Display name' set to 'Replace tokens in package.json', 'Root directory' (empty), 'Target files' set to 'package.json (1)', and 'Files encoding' set to 'auto'. There are also links for 'Link settings', 'View YAML', and 'Remove'.

The screenshot shows the 'Manage Packages for Solution' dialog in Visual Studio Code. The main dialog has a search bar, a checkbox for 'Include prerelease', and a list of package sources. An 'Options' sub-dialog is open, showing a tree view of categories on the left and a list of 'Available package sources' on the right. The 'nuget.org' source is selected. Below the list, the 'Name' is 'nuget.org' and the 'Source' is 'https://api.nuget.org/v3/index.json'. There are 'OK' and 'Cancel' buttons at the bottom of the sub-dialog.

Feeds to use * ⓘ

Feed(s) I select here Feeds in my NuGet.config

Use packages from this Azure Artifacts/TFS feed ⓘ

myNuGetFeed ▼ ↻

Use packages from NuGet.org ⓘ

Test
Deployment process

Agent job +
Run on agent

Universal download ✓
Universal Packages

Azure App Service Deploy: demo-deploy
Azure App Service Deploy

Universal Packages ⓘ [View YAML](#) [Remove](#)

Task version 0.* ▼

Display name *
Universal download

Command * ⓘ (1)
Download ▼

Destination directory * ⓘ
\$(System.DefaultWorkingDirectory) (2) ...

Feed & package details ^

Feed location * ⓘ
 This organization/collection Another organization/collection (3)

Feed *
myFeed (4) ▼ ↻

Package name *
arm-templates (5) ▼ ↻

Version * ⓘ
0.1.0 (6) ▼ ↻

Chapter 6: Infrastructure and Configuration as Code

The screenshot shows the configuration for an agent phase task. On the left, a sidebar lists the task 'Deploy ARM Template - Incremental' as the selected item. The main configuration area includes the following fields:

- Display name ***: Deploy ARM Template - Incremental
- Azure Details** (expanded):
 - Azure subscription ***: ResourceGroup - YCC Test (with a refresh icon)
 - Action ***: Create or update resource group
 - Resource group ***: \$(ResourceGroupName) (with a refresh icon)
 - Location ***: \$(ResourceGroupLocation) (with a refresh icon)
- Template** (expanded):
 - Template location ***: Linked artifact
 - Template ***: \$(System.DefaultWorkingDirectory)/_YCC CI Core/ARM Templates/azuredeploy.json (with a refresh icon)
 - Template parameters**: \$(System.DefaultWorkingDirectory)/_YCC CI Core/ARM Templates/azuredeploy.test.parameters.json (with a refresh icon)

2 resource types cannot be exported yet and are not included in the template. See error details. →

To export related resources, select the resources from the Resource Group view then select the "Export template" option from the tool bar.

Template Parameters CLI PowerShell .NET Ruby

Parameters (14)
Variables (0)
Resources (20)

```

1 |
2 | "$schema": "https://schema.management.azure.com/schemas/2015-01-01/
3 | deploymentTemplate.json#",
4 | "contentVersion": "1.0.0.0",
5 | "parameters": {
6 |   "virtualMachines_linux01_name": {
7 |     "defaultValue": "linux01",
8 |     "type": "String"
9 |   },
10 |   "virtualMachines_windows01_name": {
11 |     "defaultValue": "windows01",
12 |     "type": "String"
13 |   },
14 |   "networkInterfaces_linux01182_name": {
15 |     "defaultValue": "linux01182",
16 |     "type": "String"
17 |   },
18 |   "networkInterfaces_linux01972_name": {
19 |     "defaultValue": "linux01972",
20 |     "type": "String"
21 |   },
22 |   "publicIPAddresses_linux01_ip_name": {
23 |     "defaultValue": "linux01-ip",
24 |     "type": "String"
25 |   },
26 |   "networkInterfaces_windows01400_name": {
27 |     "defaultValue": "windows01400",
28 |     "type": "String"
29 |   },
30 |   "publicIPAddresses_linux01ip598_name": {
31 |     "defaultValue": "linux01ip598",

```

Home Dashboard All services FAVORITES All resources Resource groups Advisor Application Insights App Services App Service plans App registrations Azure Data Explorer Clu... Azure Active Directory Azure Cosmos DB Cost Management + Bill... Event Hubs Function App Event Grid Subscriptions Event Grid Topics Management groups Key vaults Log Analytics workspaces Log Apps Resource Explorer (1) Monitor Azure Cache for Redis

Search... Providers Subscriptions DevTest Intern Visual Studio Enterprise Providers ResourceGroups Buildagents Resources [Microsoft.Compute/disks] linux01_disk1_099c260330074c09a9d15de274dbee7f [Microsoft.Compute/disks] linux01_disk1_5853... [Microsoft.Compute/virtualMachines/extension] windows01_OsDisk... [Microsoft.Compute/virtualMachines/extension] linux01... [Microsoft.Network/networkInterfaces] linux01... [Microsoft.Network/networkInterfaces] linux01... [Microsoft.Network/networkSecurityGroups] li... [Microsoft.Network/networkSecurityGroups] li... [Microsoft.Network/publicIPAddresses] linux0... [Microsoft.Network/publicIPAddresses] linux0... [Microsoft.Network/virtualNetworks] Buildage... [Microsoft.Storage/storageAccounts] buildag... Deployments CreateVm-Canonical.UbuntuServer-18.04-LTS-...

[Microsoft.Compute/disks] linux01_disk1_099c260330074c09a9d15de274dbee7f (Response Time 289ms)

Open blade /subscriptions/.../resourceGroups/BUILDAGENTS/providers/Microsoft.Compute/disks/linux01_disk1_099c260330074c09a9d15de274dbee7f

```

1 |
2 | "sku": {
3 |   "name": "Premium_LRS",
4 |   "tier": "Premium"
5 | },
6 | "properties": {
7 |   "osType": "Linux",
8 |   "creationData": {
9 |     "createOption": "FromImage",
10 |    "imageReference": {
11 |      "id": "/subscriptions/.../Providers/Microsoft
12 |    },
13 |    "diskSizeGB": 30,
14 |    "timeCreated": "2019-04-04T15:54:18.8504732+00:00",
15 |    "provisioningState": "Succeeded",
16 |    "diskState": "unattached"
17 |  },
18 |   "type": "Microsoft.Compute/disks",
19 |   "location": "westeurope",
20 |   "tags": {},
21 |   "id": "/subscriptions/.../resourceGroups/BUILDAGENTS/prov
22 |   "name": "linux01_disk1_099c260330074c09a9d15de274dbee7f"
23 | }
24 |

```

Dashboard > Resource groups > Buildagents > BuildAgentAutomation - Schedules

BuildAgentAutomation - Schedules

Automation Account

Search (Ctrl+/) << + Add a schedule Refresh

NAME	NEXT RUN
MyFirstSchedule	7/25/2019 8:30 AM

New Schedule

* Name: MySecondSchedule ✓

Description:

* Starts: 2019-09-25 8:32 AM

Time zone: Netherlands - Central European Time

Recurrence: Once Recurring

* Recur every: 1 Hour

Set expiration: Yes No

* Expires: 2020-10-25 8:32 AM

Create

Search (Ctrl+/) << (3) + Add Compose configuration Refresh Reset filters

(5) Nodes Configurations Compiled configurations Gallery

Configuration (2) (4)

Search configurations...

CONFIGURATION	COMPILED CONFIGURATION COUNT	LAST MODIFIED	
ServerFarm	0	7/30/2019, 10:09 PM	...

Overview

- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve proble...

Configuration Management

- Inventory
- Change tracking
- State configuration (DSC) (1)

Update management

- Update management

Process Automation

- Runbooks
- Jobs
- Runbooks gallery
- Hybrid worker groups
- Watcher tasks

Virtual Machines
BuildAgentAutomation

Refresh

Filter by name... Visual Studio Enterprise Buildagents West Europe

VIRTUAL MACHINES	SUBSCRIPTION	RESOURCE GROUP	LOCATION
linux01	Visual Studio Enterprise	Buildagents	West Europe
windows01	Visual Studio Enterprise	Buildagents	West Europe

linux01
Virtual machine

+ Connect Refresh Learn more

Not connected

Power State
VM running

OS
Linux

Status
Not connected

Registration

* Registration key
Primary key Secondary key

Node configuration name
LabConfig.WebServer

Refresh Frequency
30

Configuration Mode Frequency
15

Configuration Mode
ApplyAndMonitor

Allow Module Override

Reboot Node if Needed

Action after Reboot
ContinueConfiguration

demohb - Configuration explorer
App Configuration - PREVIEW

Search (Ctrl+/)

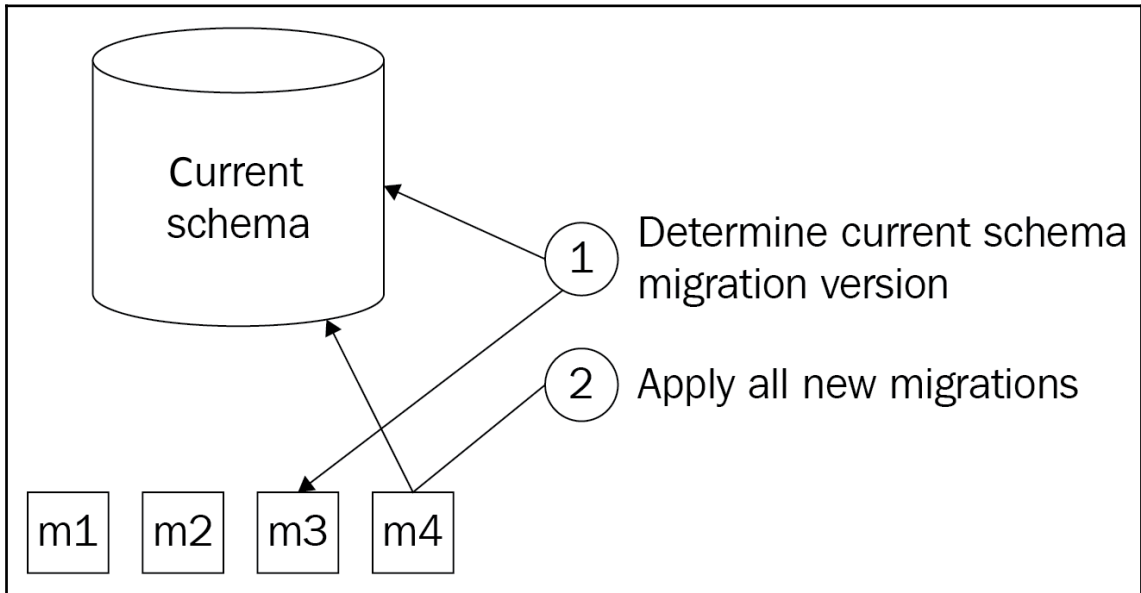
+ Create Refresh Expand all Collapse all

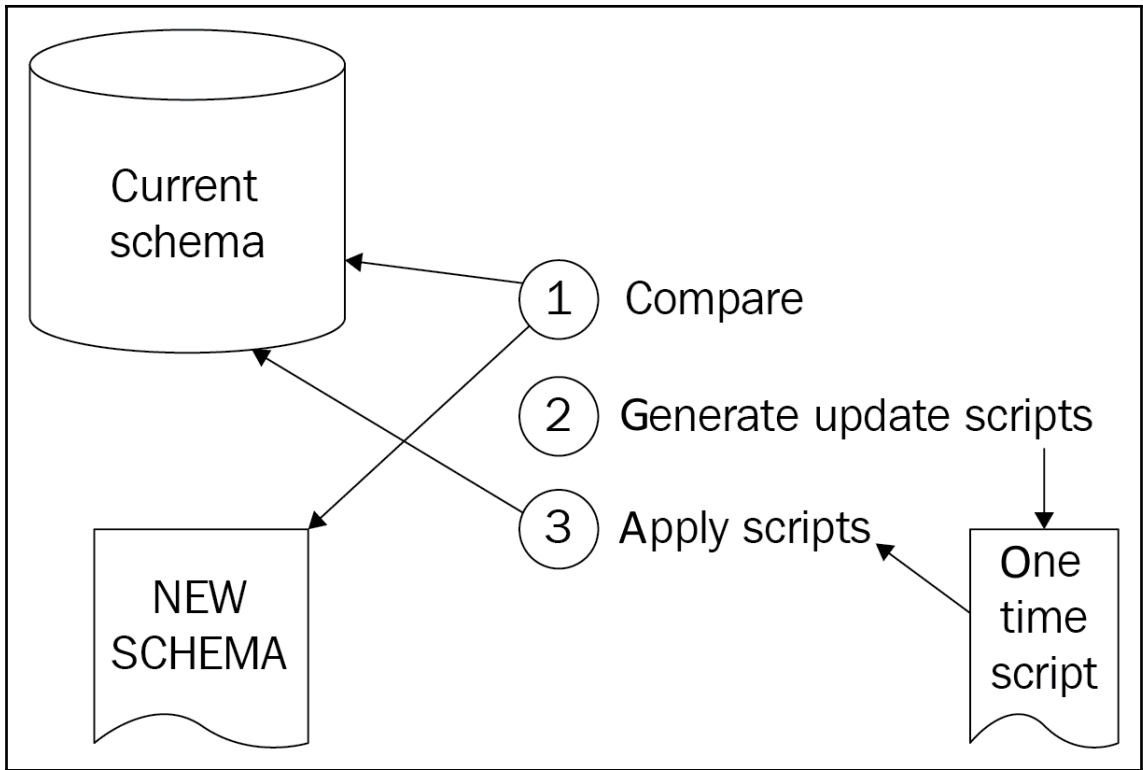
Select date Select key Select label

Loaded 1 key-values with 1 unique keys. Show values

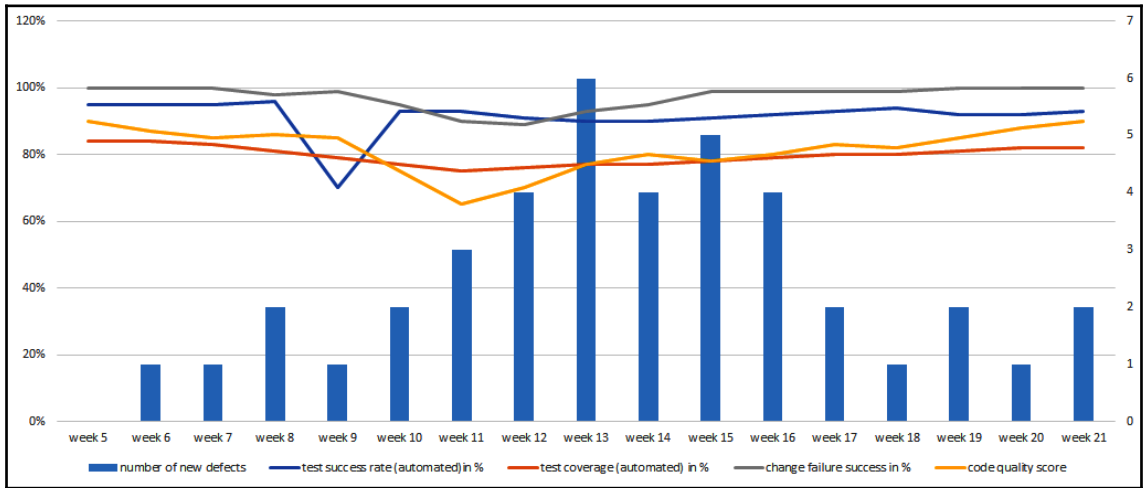
KEY	VALUE	LABEL	LAST MODIFIED	CONTENT TYPE
examplekey	(Hidden value)	(No label)	7/29/2019, 8:19:50 AM	...

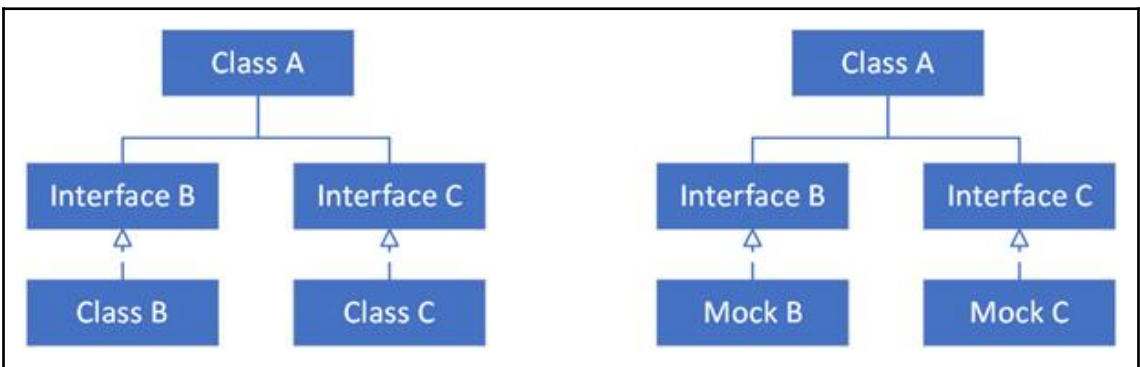
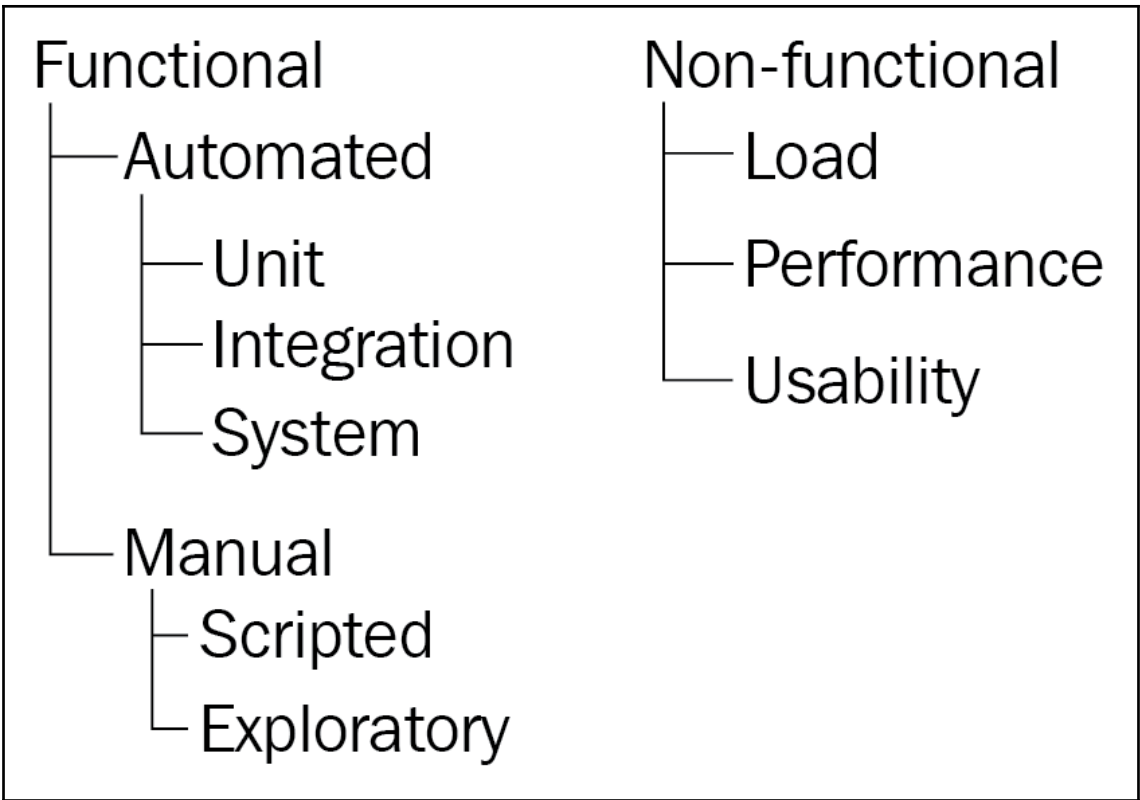
Chapter 7: Dealing with Databases in DevOps Scenarios





Chapter 8: Continuous Testing





Azure DevOps azurespecialist / Demos / Test Plans

Demos +

- Overview
- Boards
- Repos
- Pipelines
- Test Plans (1)**
- Test plans* (2)**
- Progress report
- Parameters
- Configurations
- Runs
- Load test
- Artifacts


Test Plans

Mine All | + New Test Plan (3)

Title	State
-------	-------


My Favorites

No favorites yet! Favorite a test plan to quickly access it here.


 **New Test Plan**

Name

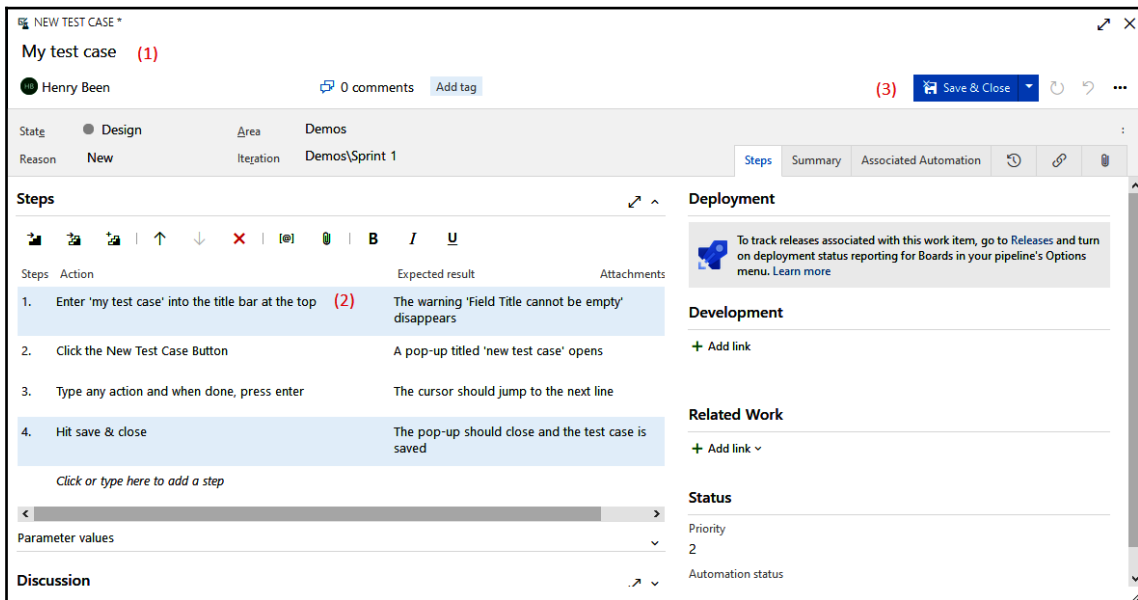
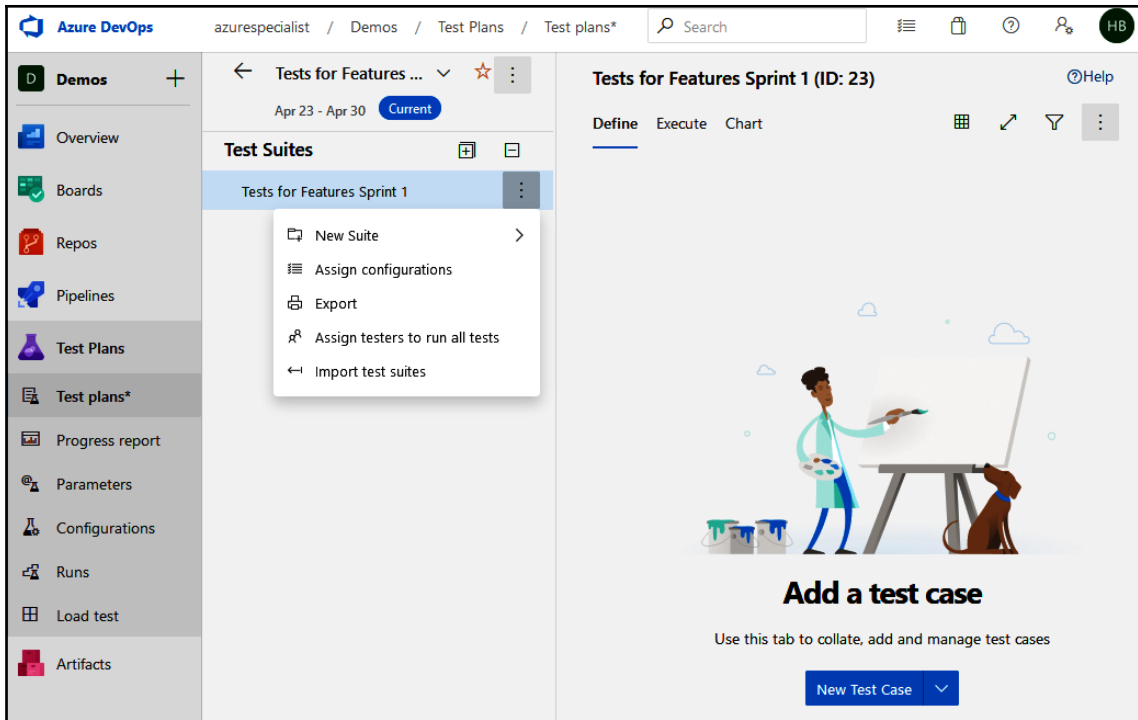
Area Path

Iteration

(7)



azure DevOps azurespecialist / Demos / Test Plans / Test plans*

Tests for Features Sprint 1 (ID: 23)

Apr 23 - Apr 30 Current

Test Suites

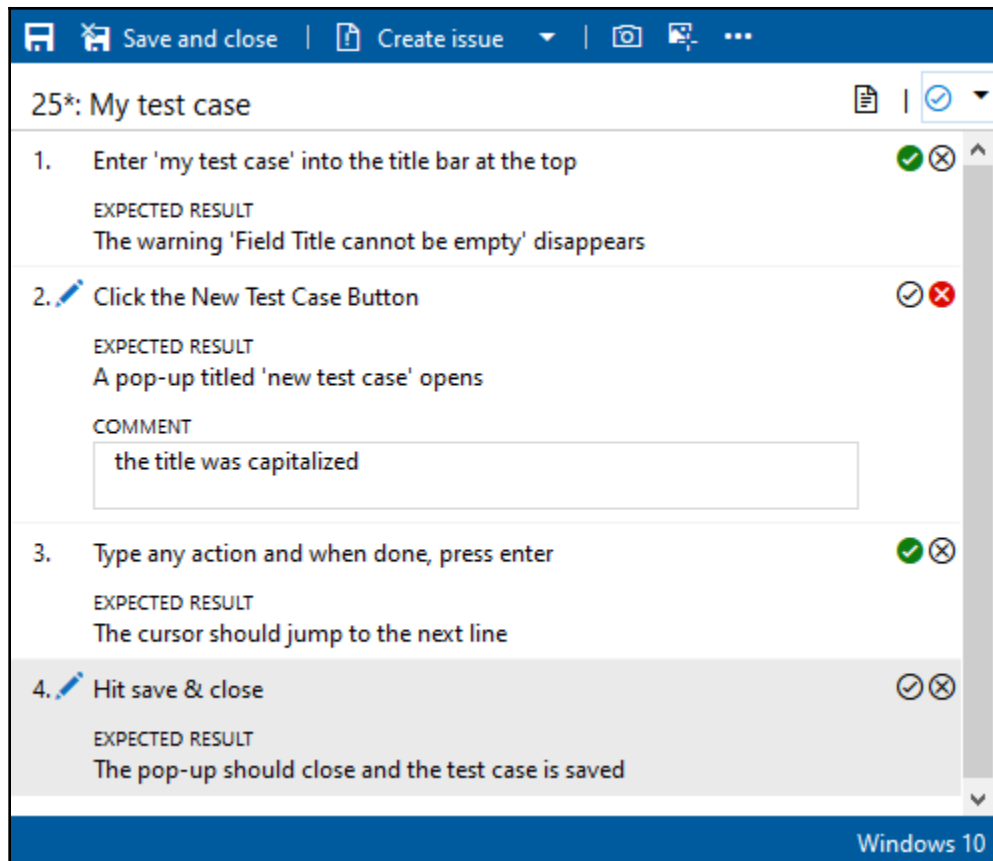
Tests for Features Sprint 1 (1 of 1)

Test Points (1 item)

Run for web application (3)

<input checked="" type="checkbox"/>	Title	Outcome	Order	Test Case Id	Configuration	Tester
<input checked="" type="checkbox"/>	My test case	Active	1	25	Windows 10	Henry Been

(2)



Demos +

- Overview
- Boards
- Repos
- Pipelines
- Test Plans**
- Test plans*
- Progress report
- Parameters
- Configurations
- Runs
- Load test
- Artifacts

Enter Run ID... Go

Recent test runs

↻

Test runs

38: Tests for Features Sprint 1 (Manu...)

Recent exploratory sessions

Run 38 - Tests for Features Sprint 1 (Manual)

[Run summary](#) | [Test results](#) | [Filter](#)

↻ | [Update comment](#) | [Add attachment](#)

Summary

● Completed 3 minutes ago, Ran for 02 minutes 35 seconds

Run type	Manual
Owner	Henry Been
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 0

Outcome

1 Passed

Outcome by priority

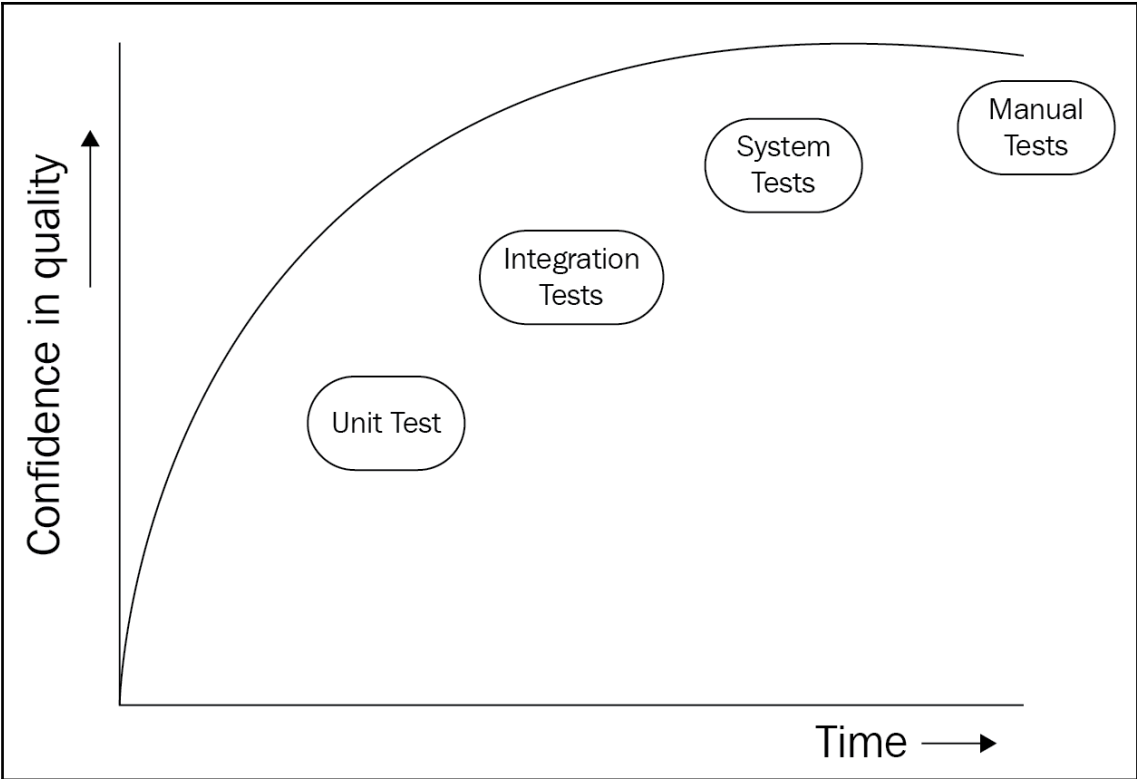
2 Passed

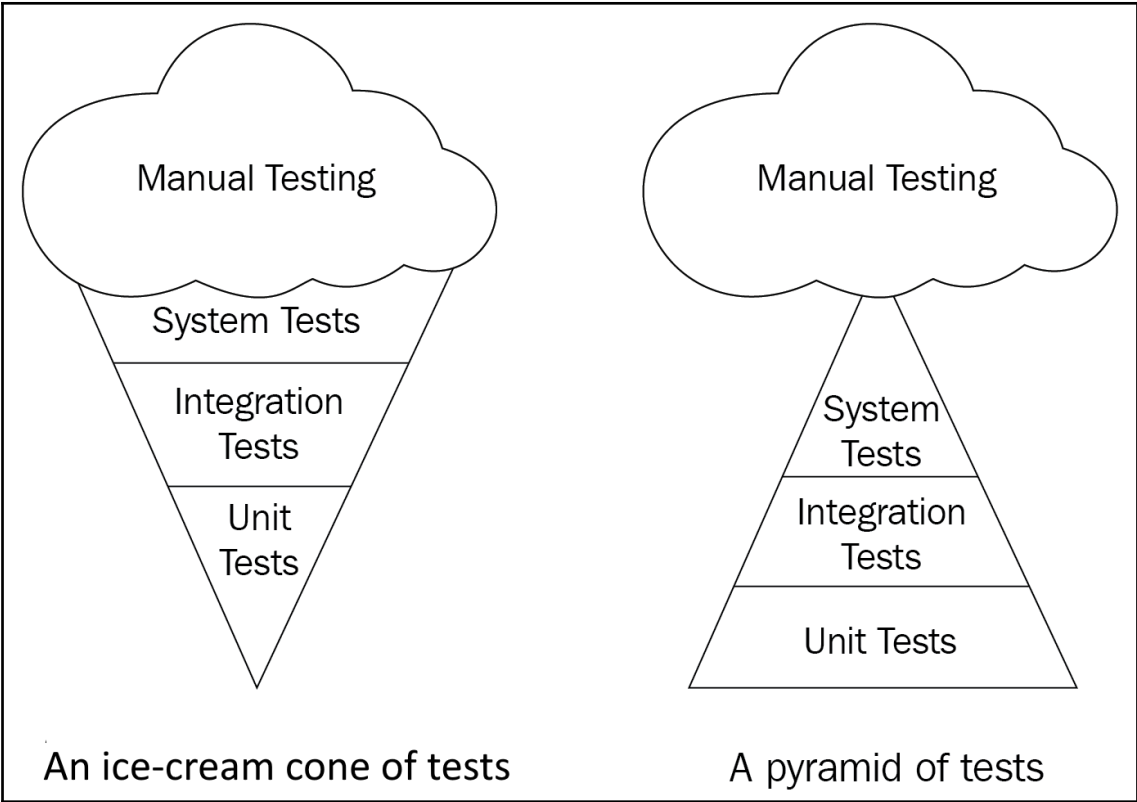
Outcome by failure type

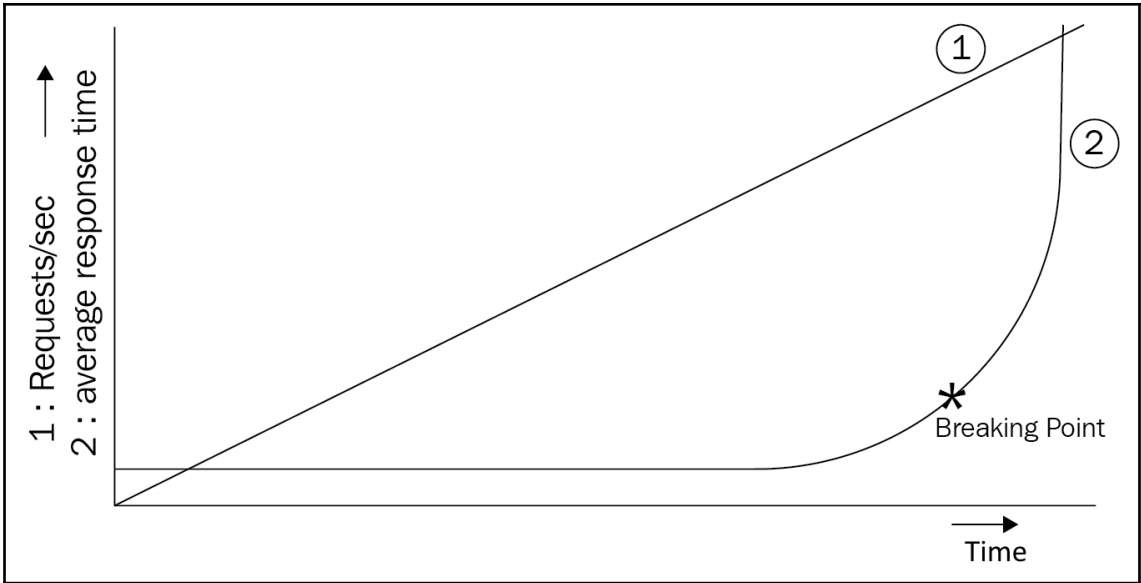
1 Passed

Outcome by resolution

1 Passed







The screenshot shows a pipeline dashboard for a project named '#20 parameterize staging slot name and return as output'. The pipeline is currently in a 'Success' state. The dashboard includes a sidebar with navigation options like Overview, Boards, Repos, Pipelines, Environments, Releases, Library, Task groups, Deployment groups, WhiteSource Bolt, Test Plans, and Artifacts. The main content area shows the pipeline's summary, including the repository and version (CDforFunctions5), the time started and elapsed (6 nov. 2019 at 13:24, 1m 14s), and related items (0 work items, 2 published). A red box highlights the 'Tests and coverage' section, which shows '100% passed' and 'Setup code coverage'. Below this, a 'Jobs' table lists the pipeline's execution details.

Name	Status	Duration
Agent job 1	Success	1m 10s

Pipeline
Build pipeline

Get sources
YCC master

Phase 1
Run on agent

- Use NuGet 4.5.0
NuGet tool installer
- Use .NET Core sdk 2.2.203
.NET Core SDK/runtime installer
- Restore
.NET Core
- Build
.NET Core
- Test**
.NET Core
- Publish code coverage from \$(System.DefaultWorkingDir...
Publish code coverage results
- dotnet publish
.NET Core
- Copy Files to: \$(Build.ArtifactstagingDirectory)/arm-templ...
Copy files
- Publish Artifact: ARM Templates
Publish build artifacts
- Publish Artifact: App Service Package
Publish build artifacts
- Publish Artifact: Functions package
Publish build artifacts

.NET Core

Task version **2.***

Display name *
Test

Command *
test

Path to project(s)
YCC/*/*.Test.csproj

Arguments
--configuration \$(BuildConfiguration) /p:CollectCoverage=true /p:CoverletOutputFormat=cobertura
 Publish test results and code coverage

Test run title

Advanced
Control Options
Output Variables

Pipeline
Build pipeline

Get sources
YCC master

Job 1
Run on agent

- Use NuGet 4.5.0
- Use .NET Core sdk 2.2.203
- Restore
- Build
- Test
- Publish code coverage from \$(System.DefaultWorkingDir...)**
- dotnet publish
- Copy Files to: \$(Build.ArtifactstagingDirectory)/arm-templ...
- Publish Artifact: ARM Templates

Publish code coverage results [Link settings](#) [View YAML](#) [Remove](#)

Task version: 1.*

Display name: Publish code coverage from \$(System.DefaultWorkingDirectory)**/coverage.cobertura.xml

Code coverage tool: Cobertura

Summary file: \$(System.DefaultWorkingDirectory)**/coverage.cobertura.xml

Path to Source files:

Report directory:

Additional files:

Fail when code coverage results are missing

Control Options

Output Variables

Pipeline
Build pipeline

Get sources
Secrets.ExistingInfrastructure master

Agent job 1
Run on agent

- Prepare analysis on SonarCloud**
- Use NuGet 5.0.0
- NuGet restore
- Build solution ExistingInfrastructure.sln
- Publish Artifact: drop
- Run Code Analysis
- Publish Quality Gate Result

Prepare Analysis Configuration [Link settings](#) [View YAML](#) [Remove](#)

Task version: 1.*

Display name: Prepare analysis on SonarCloud

SonarCloud Service Endpoint: SonarCloud [Manage](#)

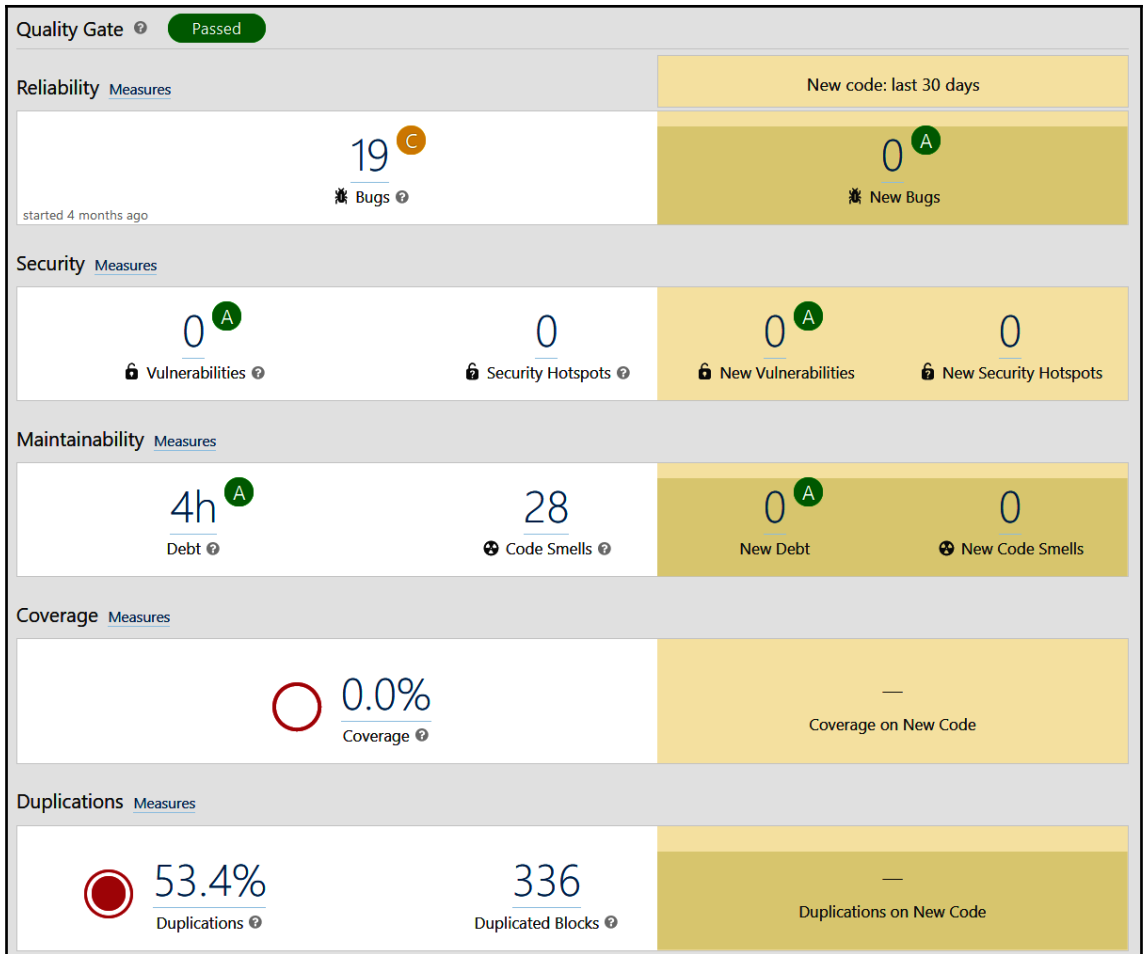
Organization: [Redacted]

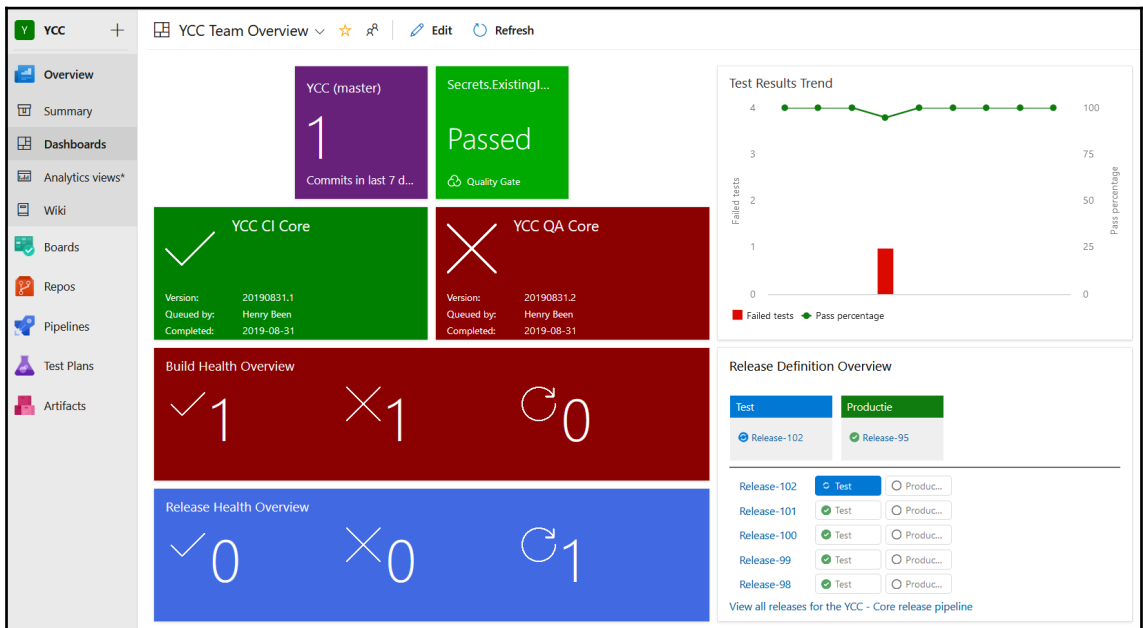
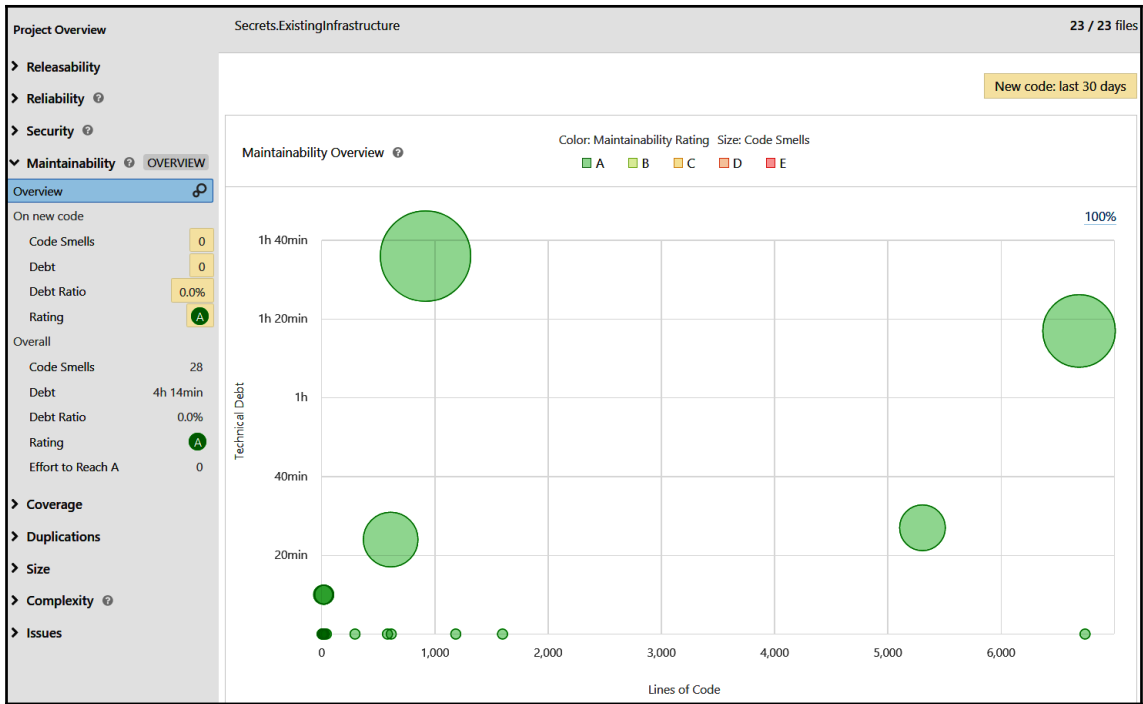
Choose the way to run the analysis: Integrate with MSBuild Integrate with Maven or Gradle Use standalone scanner

Project Key: [Redacted]

Project Name:

Project Version: 1.0





The screenshot displays a pipeline configuration interface. On the left, there are two panels: 'Artifacts | + Add' and 'Stages | + Add'. The 'Artifacts' panel contains two items: 'Secrets.ExistingInf rastructure' and 'Schedule not set'. The 'Stages' panel contains one stage named 'Test' with '1 job, 1 task'. A line connects the 'Secrets.ExistingInf rastructure' artifact to the 'Test' stage. On the right, the 'Pre-deployment conditions' section is expanded, showing settings for 'Test'. It includes sections for 'Triggers' (disabled), 'Pre-deployment approvals' (disabled), and 'Gates' (enabled). Under 'Gates', there is a 'Deployment gates' section with one gate: 'Check SonarCloud Quality Gate status', which is enabled. The gate configuration includes 'Task version' set to '1.* (preview)', a 'Display name' of 'Check SonarCloud Quality Gate status', and an 'Output Variables' section.

Artifacts | + Add

- Secrets.ExistingInf rastructure
- Schedule not set

Stages | + Add

- Test
1 job, 1 task

Pre-deployment conditions

Test

Triggers Disabled

Define the trigger that will start deployment to this stage

Pre-deployment approvals Disabled

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

Deployment gates Enabled **+ Add**

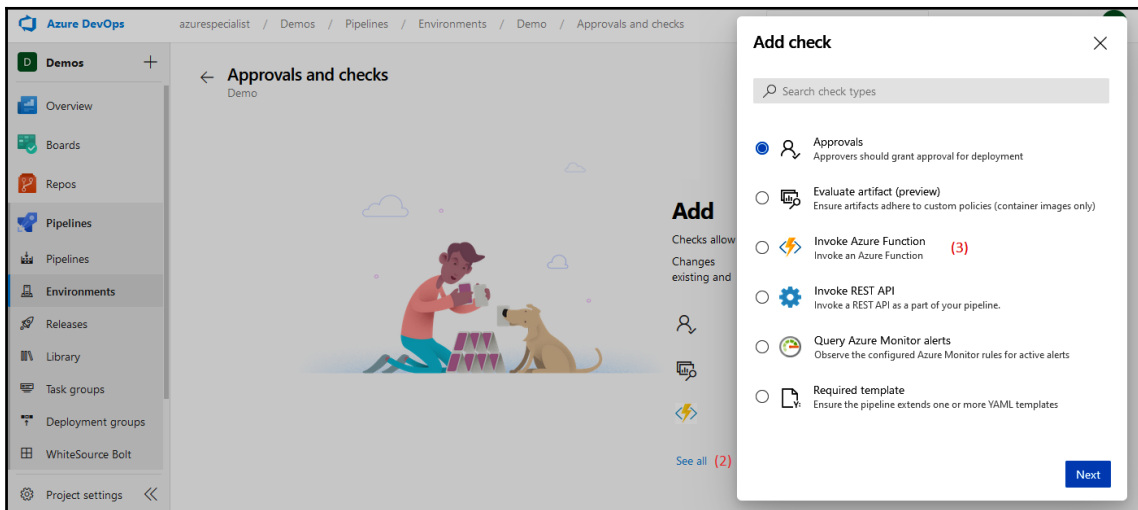
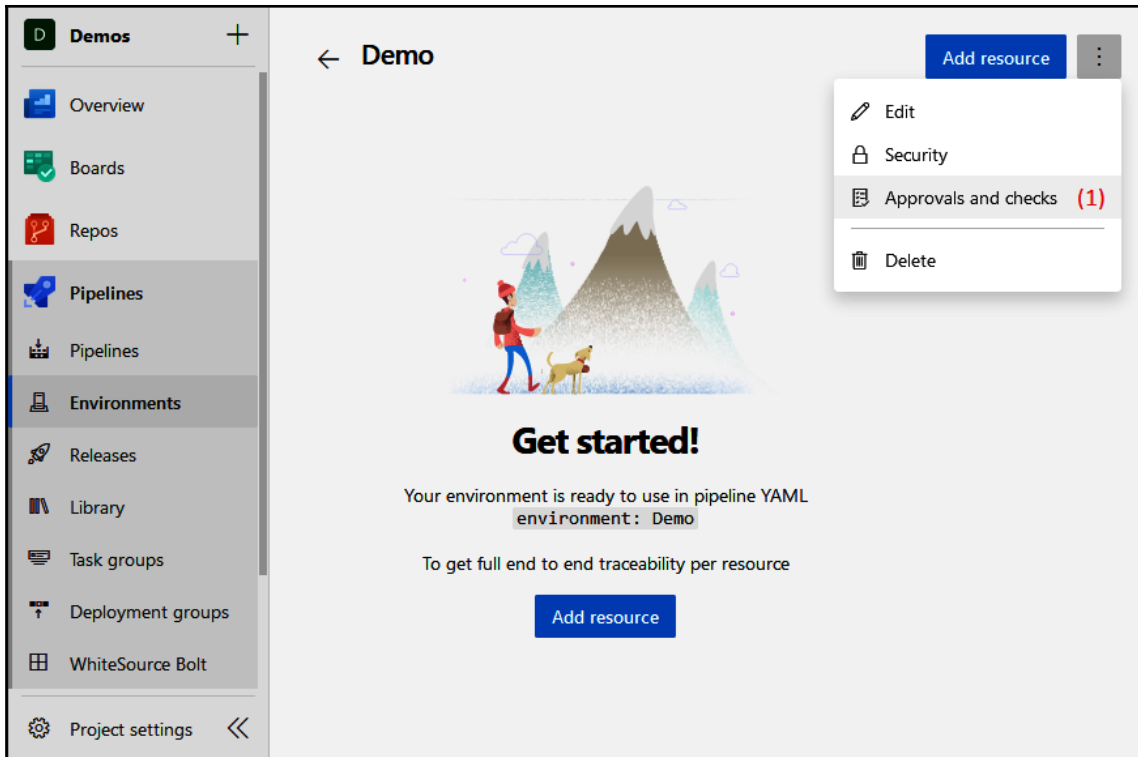
- Check SonarCloud Quality Gate status** Enabled

SonarCloud Quality Gate status check (Preview)

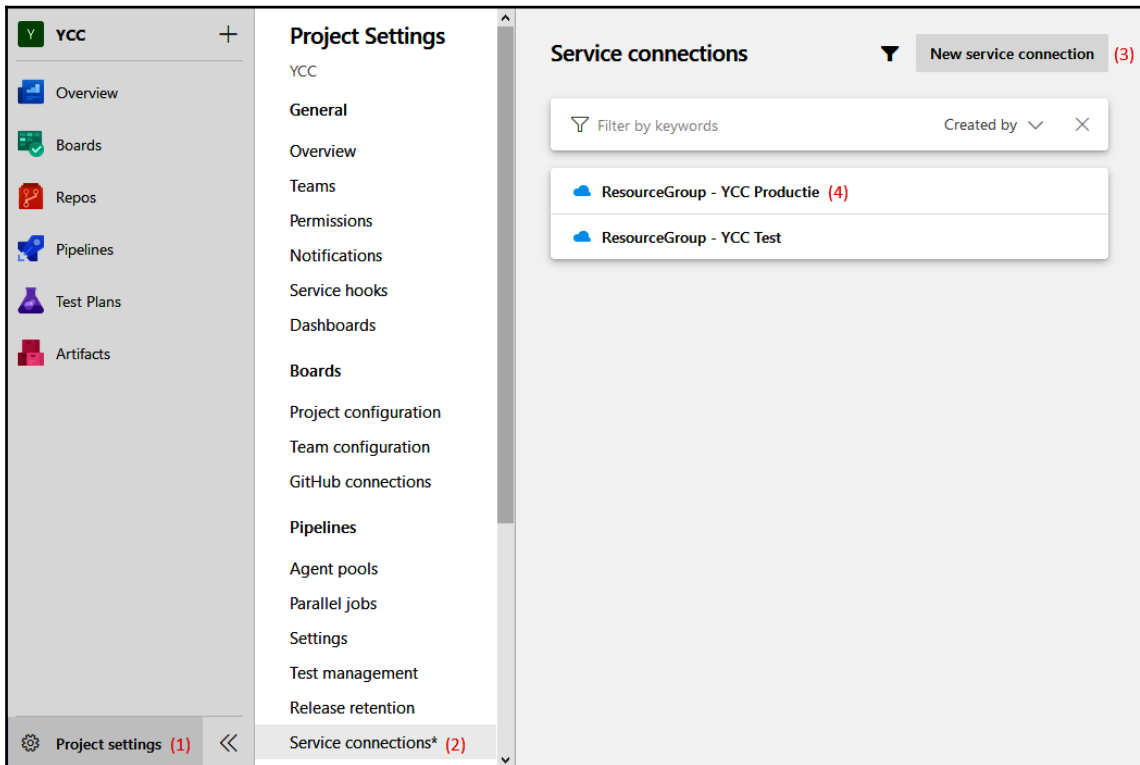
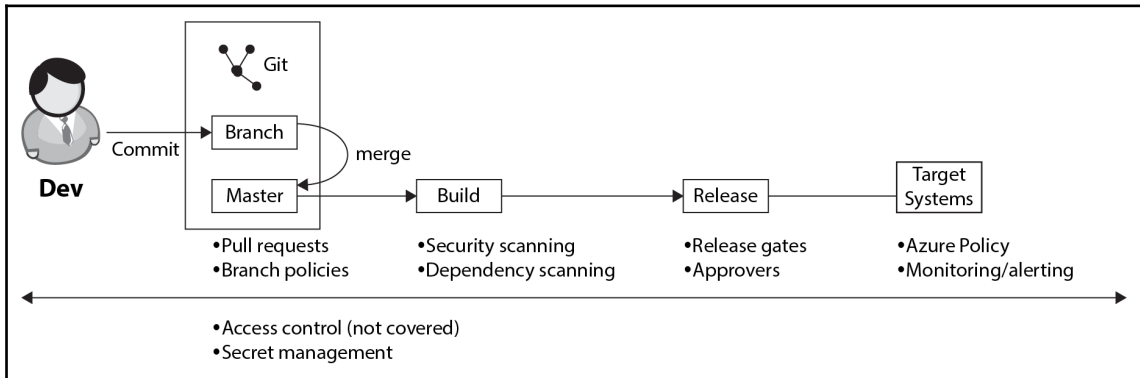
Task version

Display name *

Output Variables



Chapter 9: Security and Compliance



The screenshot displays the 'Project Settings' interface for a resource group named 'YCC Test'. The left sidebar contains navigation options: Overview, Boards, Repos, Pipelines, Test Plans, and Artifacts. The 'Project Settings' menu is expanded, showing categories like General, Overview, Teams, Permissions, Notifications, Service hooks, Dashboards, Boards, Project configuration, Team configuration, GitHub connections, Pipelines, Agent pools, Parallel jobs, Settings, Test management, Release retention, and Service connections*. The main content area is titled 'ResourceGroup - YCC Test' and has an 'Edit' button with a notification count of (1). The 'Security' tab is active, showing 'User permissions (2)' and 'Pipeline permissions'. The 'User permissions' section includes an 'Add' button, 'Undo', 'Save', and an 'Inheritance' dropdown. It contains a table with two entries:

User	Role	Access
[YCC]Endpoint Administrators	Administrator	Inherited
Henry Been	Administrator	Assigned

The 'Pipeline permissions' section shows a lock icon and the text 'No restrictions' with a sub-note 'Any pipeline may use this resource' and a 'Learn more' link. A 'Restrict permission (3)' button is located in the top right of this section.

Library > myVariableGroup

Variable group | Save | Clone | Security (5) | Help

Properties

Variable group name
myVariableGroup

Description

Allow access to all pipelines (4)

Link secrets from an Azure key vault as variables (1)

Azure subscription * | Manage

DevTest (a314c0b2-589c-4c47-a565-f34f64be939b) | Authorize | (2)

(1) Scoped to subscription 'Visual Studio Enterprise'
Click Authorize to configure an Azure service connection. A new Azure service principal will be created and added to the Contributor role, having access to all resources in the selected subscription. To restrict the scope of the service principal to a specific resource group, see [connect to Microsoft Azure](#)

Key vault name * | Manage

yccdashboardKeyVaulttst | Authorize | (3)

(1) The specified Azure service connection needs to have "Get, List" secret management permissions on the selected key vault. Click "Authorize" to enable Azure Pipelines to set these permissions or manage secret permissions in the Azure portal.

The screenshot shows the Azure DevOps pipeline configuration page for a task named 'Run Credential Scanner'. The left sidebar contains navigation options like Boards, Repos, Pipelines, Environments, Releases, Library, Task groups, Deployment groups, WhiteSource Bolt, Test Plans, and Artifacts. The main area displays the pipeline structure with 'Agent job 1' containing several tasks: 'Get sources', 'Run Credential Scanner' (highlighted), 'Build project', 'Archive files', 'Publish Artifact: function-binaries', 'Copy Files to: \$(artifactstagingdirectory)\arm-templates', 'Publish Artifact: function-binaries copy', 'Create Security Analysis Report', 'Publish Security Analysis Logs', and 'Post Analysis'. The right-hand configuration panel for the 'Run Credential Scanner' task includes settings for 'Task version' (2.*), 'Display name' (Run Credential Scanner), 'Tool Major Version' (CredScan V2 (Recommended)), 'Output Format' (PREfast), 'Tool Version' (Latest), 'Scan Folder' (\$(Build.SourcesDirectory)), 'Searchers File Type' (Default), 'Suppressions File' ((3)), and checkboxes for 'Suppress As Error' and 'Verbose Output'.

Microsoft Security Analysis Report

Build Summary

View	File Path	Line	Error Id	Name	Description
View	SimpleFunction\SimpleFunction.Function \local.settings.json	9		SecretinFile	{{Searcher}}CSCAN-GENERAL0060 {{Code}}See local.settings.json line 9 for the code resulting in match {{Info}}Found General Password. {{Suggest}}Validate file contains secrets, remove, roll credential, and use approved store. For additional information on secret remediation see https://aka.ms/credscan

The screenshot shows the Jenkins pipeline configuration for 'Example Build'. The pipeline consists of several tasks:

- Get sources**: Build pipeline
- Phase 1**: Run on agent
 - Use NuGet 4.5.0**: NuGet tool installer
 - Use .NET Core sdk 2.2.203**: .NET Core SDK/runtime installer
 - Restore**: .NET Core
 - Build**: .NET Core
 - Test**: .NET Core
 - WhiteSource Bolt**: WhiteSource Bolt

The right-hand pane shows the configuration for the 'WhiteSource Bolt' task, including 'Task version 18.*', 'Display name * WhiteSource Bolt', and 'Root working directory'.

The screenshot displays the 'WhiteSource Bolt Build Report' with the following sections:

- Security Vulnerability Score**: MEDIUM
- Vulnerable Libraries**: 97 No Known Vulnerabilities, 2 Vulnerable (2 Outdated)
- Severity Distribution**: High 0, Med 2, Low 0. Total: 2 Vulnerable Libraries.
- Aging Vulnerable Libraries**: 2 libraries are > 90 Days old, 0 are < 90 Days, and 0 are < 30 Days.
- Security Vulnerabilities (2)**:

Vulnerability	Library	Description	Top Fix
Medium 6.1 CVE-2019-11358 Apr-20-2019	jquery-3.3.1.js	jQuery before 3.4.0, as used in Drupal, Backdrop CMS, and other products, mishandles jQuery.extend(true, {}, ...) because of Object.prototype pollution. If an unsanitized source object contained an enumerable __proto__ property, it could extend the native Object.prototype.	Upgrade To Version 3.4.0 https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2019-11358
Medium 6.1 CVE-2019-11358 Apr-20-2019	jquery-3.3.1.min.js	jQuery before 3.4.0, as used in Drupal, Backdrop CMS, and other products, mishandles jQuery.extend(true, {}, ...) because of Object.prototype pollution. If an unsanitized source object contained an enumerable __proto__ property, it could extend the native Object.prototype.	Upgrade To Version 3.4.0 https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2019-11358
- License Risks and Compliance**:

License	Risk Level	Occurrences
Microsoft Public	Medium	3
MIT	Low	27
Apache 2.0	Low	18
BSD 2	Low	3
BSD 3	Low	1
Suspected Apache 2.0	Unknown	29
Microsoft .NET Library	Unknown	5
Suspected Microsoft .NET Library	Unknown	1

Policy feature launch | Ability to tag existing resources at scale. →

Overview | Getting started | Join Preview

Scope: 4 selected | Type: All definition types | Compliance state: All compliance states | Search: Filter by name or id...

Compliance: Overall resource compliance 82% (164 out of 201) | Non-compliant initiatives 1 out of 2 | Non-compliant policies 32 out of 194 | Non-compliant resources 37 out of 201

Name	Scope	Compliance state	Resource compliance	Non-Compliant Resources	Non-compliant policies
ASC Default (subscription: 1dad7d18-a6d1-40c2...)	Microsoft Azure Sponsorship	Non-compliant	82% (164 out of 201)	37	31
Automatically add IP to SQL DB server whitelist	Microsoft Azure Sponsorship	Non-compliant	25% (1 out of 4)	3	1
ASC Default (subscription: 5e3aa7f5-7fb8-4719-...)	Demos	Compliant	100% (0 out of 0)	0	0
Automatically add IP to SQL DB server whitelist	Microsoft Azure Sponsorship/armstrongdemo	Compliant	100% (1 out of 1)	0	0

Remediation | Authoring | Assignments | Definitions | Related Services | Blueprints (preview) | Resource Graph | User privacy

Function App

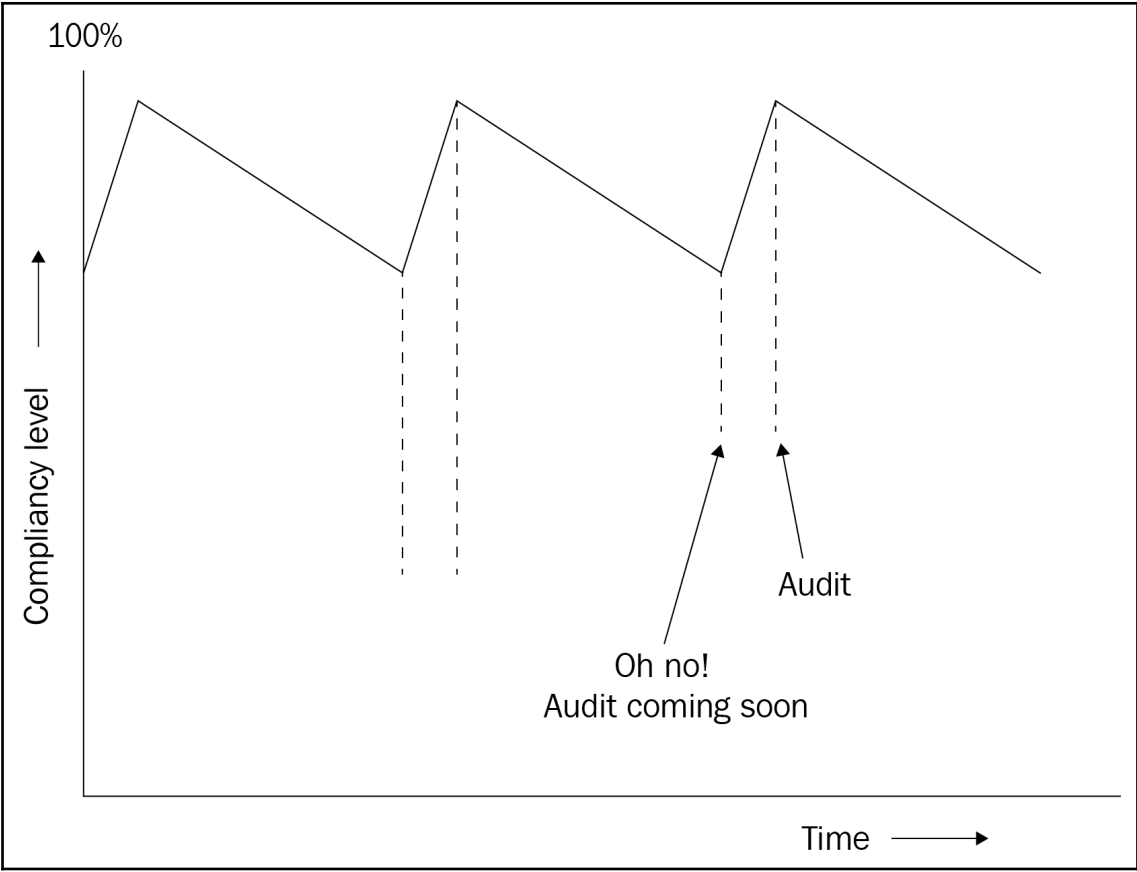
Compliance state: Non-compliant | Overall resource compliance: 94% (215 out of 229) | Non-compliant policies: 24 out of 88 | Non-compliant resources: 14 out of 229 | Events (last 7 days): Audit 13, Append 0, Deny 0, Deploy 0

Policies | Non-compliant resources | Events

Filter by policy name or definition id... | All compliance states

NAME	EFFECT TYPE	COMPLIANCE STATE	NON-COMPLIANT RESOURCES	TOTAL RESOURCES
DDoS Protection Standard should be enabled	AuditIfNotExists	Non-compliant	1	1
Web Application should only be accessible ove...	Audit	Non-compliant	1	2
Function App should only be accessible over ...	Audit	Non-compliant	1	2
External accounts with owner permissions sho...	AuditIfNotExists	Non-compliant	1	1
MFA should be enabled on accounts with own...	AuditIfNotExists	Non-compliant	1	1
Subnets should be associated with a Network ...	AuditIfNotExists	Non-compliant	1	1
Diagnostic logs in App Services should be ena...	AuditIfNotExists	Non-compliant	1	1
Diagnostic logs in Key Vault should be enabled	AuditIfNotExists	Non-compliant	1	1
Diagnostic logs in Service Bus should be enabl...	AuditIfNotExists	Non-compliant	1	1
SQL managed instance TDE protector should b...	AuditIfNotExists	Compliant	0	0
SQL server TDE protector should be encrypted...	AuditIfNotExists	Compliant	0	0
[Preview]: IP Forwarding on your virtual machi...	AuditIfNotExists	Compliant	0	2

Event Grid Subscriptions | Event Grid Topics | Management groups | Key vaults | Log Analytics workspaces | Logic Apps | Resource Explorer | Monitor | Policy | Security Center | Service Fabric clusters | Service Bus | SendGrid Accounts | SQL servers | SQL databases | Storage accounts | Traffic Manager profiles | Stream Analytics jobs | Subscriptions | Virtual machines



Security Center - Overview

Showing 4 subscriptions

Search (Ctrl+F) Subscriptions What's new

Getting things ready for your subscriptions. This may take a few minutes...

Overview

- Getting started
- Pricing & settings

POLICY & COMPLIANCE

- Coverage
- Secure score
- Security policy
- Regulatory compliance

RESOURCE SECURITY HYGIENE

- Recommendations
- Compute & apps
- Networking
- IoT Hubs & resources
- Data & storage
- Identity & access
- Security solutions

ADVANCED CLOUD DEFENSE

- Adaptive application controls
- Just in time VM access
- Adaptive network hardening
- File Integrity Monitoring

THREAT PROTECTION

- Security alerts
- Custom alert rules (Preview)
- Security alerts map (Preview)

AUTOMATION & ORCHESTRATION

- Playbooks (Preview)

Policy & compliance

Secure score
275 OF 625
[Review your secure score >](#)

Regulatory compliance

- ISO 27001: 6 of 20 passed controls
- SOC TSP: 5 of 12 passed controls
- Azure CIS 1.1.0: 10 of 18 passed controls

Subscription coverage
4 TOTAL
Fully covered: 1, Partially covered: 3, Not covered: 0
15 Covered resources

Make alert data available to your SIEM
You can make Security Center alerts available to a SIEM connector
[Set up SIEM connector >](#)

Resource security hygiene

Recommendations
18 TOTAL
14 Unhealthy resources

Resource health by severity

- High Severity: 11
- Medium Severity: 4
- Low Severity: 3

Review and improve your secure score
Review and resolve security vulnerabilities to improve your secure score and secure your workload
[Learn more >](#)

Threat protection

Security alerts by severity

- High severity: 0
- Medium severity: 0
- Low severity: 18

Security alerts over time
Bar chart showing 18 alerts over the last 7 days.

Most attacked resources

- linux01: 17 Alerts
- window01: 16 Alerts

Security Center - Security alerts

Showing 4 subscriptions

Search (Ctrl+F) Filter

Some subscriptions have limited protection. Upgrade to Standard to enhance their security →

Overview

- Getting started
- Pricing & settings

POLICY & COMPLIANCE

- Coverage
- Secure score
- Security policy
- Regulatory compliance

RESOURCE SECURITY HYGIENE

- Recommendations
- Compute & apps
- Networking
- IoT Hubs & resources
- Data & storage
- Identity & access
- Security solutions

ADVANCED CLOUD DEFENSE

- Adaptive application controls
- Just in time VM access
- Adaptive network hardening
- File Integrity Monitoring

THREAT PROTECTION

- Security alerts**
- Custom alert rules (Preview)
- Security alerts map (Preview)

AUTOMATION & ORCHESTRATION

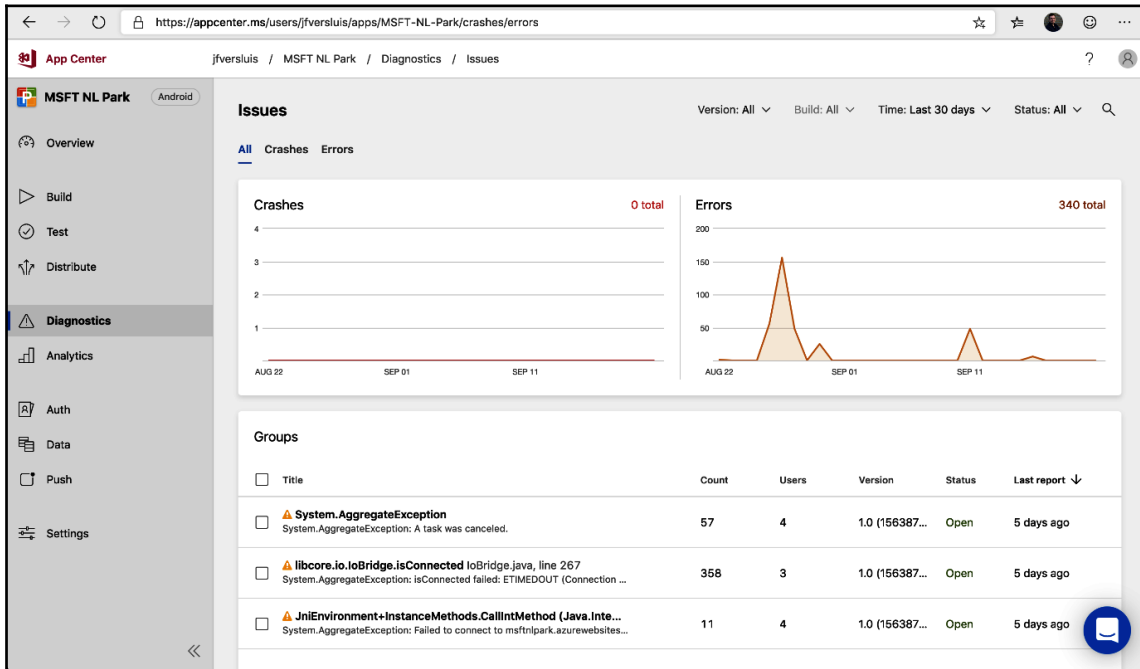
- Playbooks (Preview)

18 TOTAL

Bar chart showing 18 alerts over the last 7 days.

DESCRIPTION	COUNT	DETECTED BY	ENVIRONMENT	DATE	STATE	SEVERITY
Traffic from unrecommended IP addresses was detected	2	Microsoft	Azure	09/07/19	Active	Low
Traffic from unrecommended IP addresses was detected	2	Microsoft	Azure	09/06/19	Active	Low
Traffic from unrecommended IP addresses was detected	2	Microsoft	Azure	09/05/19	Active	Low
Traffic from unrecommended IP addresses was detected	2	Microsoft	Azure	09/04/19	Active	Low
Traffic from unrecommended IP addresses was detected	1	Microsoft	Azure	09/02/19	Active	Low
Traffic from unrecommended IP addresses was detected	1	Microsoft	Azure	09/01/19	Active	Low
Traffic from unrecommended IP addresses was detected	2	Microsoft	Azure	08/31/19	Active	Low
Traffic from unrecommended IP addresses was detected	2	Microsoft	Azure	08/30/19	Active	Low
Traffic from unrecommended IP addresses was detected	2	Microsoft	Azure	08/29/19	Active	Low
Traffic from unrecommended IP addresses was detected	2	Microsoft	Azure	08/28/19	Active	Low
Traffic from unrecommended IP addresses was detected	2	Microsoft	Azure	08/27/19	Active	Low

Chapter 10: Application Monitoring



App Center jfversluis / MSFT NL Park / Diagnostics / Issues / #809547380

System.Threading.Tasks.Task.ThrowIfExceptional (System.Boolean includeTaskCanceledExceptions) [0x00011] in <74899f474b99464dbd9db5003455f3c7>:0
 System.AggregateException: A task was canceled. Error Version 1.0 (1563874513) 4 users 57 reports

Stack traces

```

System.Threading.Tasks.Task.ThrowIfExceptional (System.Boolean includeTaskCanceledExceptions)
System.Threading.Tasks.Task`1[TResult].GetResultCore (System.Boolean waitCompletionNotification)
System.Threading.Tasks.Task`1[TResult].get_Result ()
msftnlpark.MainPage.UpdateData ()
    
```

Reports 48 in last 30 days

Affected users 13.3% in last 30 days

Most affected devices

Galaxy S9+	50.0%
Galaxy S9	25.0%

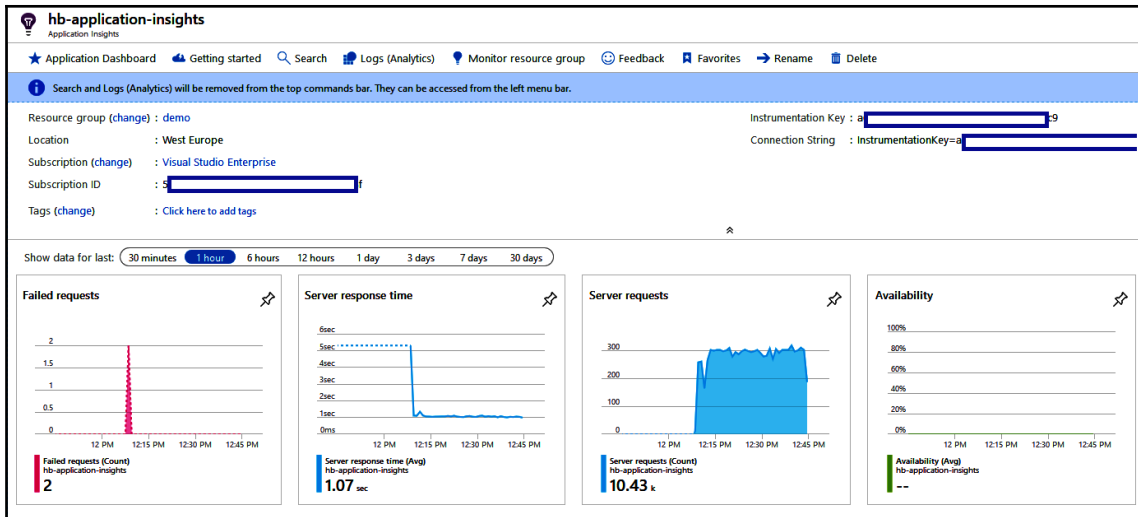
Most affected OS

9	10
---	----

Errors by hour

My errors 0 Active 1 Resolved 0 Ignored 0 Permanently ignored 0

Message	Last seen	Count	Users
<input type="checkbox"/> Exception: Boem!	3 minutes ago	3	1



Dashboard > hb-application-insights - Logs (Analytics)

hb-application-insights - Logs (Analytics)

Search (Ctrl+F) | New Query 1* | Run | Time range: Last 24 hours | Save | Copy | Export | New alert rule | Pin to dashboard

Filter by name or type

Active

- hb-application-insights
 - APPLICATION INSIGHTS
 - traces
 - customEvents
 - pageViews
 - requests
 - dependencies
 - exceptions
 - availabilityResults
 - customMetrics
 - performanceCounters
 - browseTimings
 - Functions
 - Favorite applications

traces | order by timestamp desc (2) | take 10

Completed. Showing results from the last 24 hours. 00:00:00.199 10 records | Display time (UTC+00:00)

Drag a column header and drop it here to group by that column

timestamp [UTC]	message	severityLevel	itemType	customDimensions
9/22/2019, 10:19:24.651 AM	Fetching alias	1	trace	["Log.level":"Information","Category":"Function.UHS
9/22/2019, 10:19:24.651 AM	Recording usage	0	trace	["Log.level":"Information","Category":"Function.UHS
9/22/2019, 10:19:24.651 AM	Fetching alias	1	trace	["Log.level":"Information","Category":"Function.UHS
9/22/2019, 10:19:19.124 AM	Recording usage	0	trace	["Log.level":"Information","Category":"Function.UHS
9/22/2019, 10:19:19.107 AM	Recording usage	0	trace	["Log.level":"Information","Category":"Function.UHS
9/22/2019, 10:19:19.107 AM	Fetching alias	1	trace	["Log.level":"Information","Category":"Function.UHS
9/22/2019, 10:19:19.107 AM	Fetching alias	1	trace	["Log.level":"Information","Category":"Function.UHS
9/22/2019, 10:19:18.913 AM	Executing 'UHSshortner' (Reasons: This function was programmatically c...	1	trace	["Log.level":"Information","Category":"Function.UHS
9/22/2019, 10:19:18.905 AM	Executed 'UHSshortner' (Succeeded, Id=3a74c524-6746-40b7-459f-f6e60...	1	trace	["Log.level":"Information","Category":"Function.UHS
9/22/2019, 10:19:18.383 AM	Executing 'UHSshortner' (Reasons: This function was programmatically c...	1	trace	["Log.level":"Information","Category":"Function.UHS

The screenshot shows the Azure Monitor Alerts interface. On the left is a navigation pane with categories like 'All services', 'FAVORITES', and 'All resources'. The main content area is titled 'Monitor - Alerts' and includes a search bar and several action buttons: '(3) + New alert rule', 'Manage alert rules', 'Manage actions', 'View classic alerts', 'Refresh', and 'Provide feedback'. Below these are filters for 'Subscription' (set to 'Visual Studio Enterprise'), 'Resource group', 'Resource', and 'Time range' (set to 'Past 24 hours'). The central message reads 'All is good! You have no alerts.' accompanied by an illustration of a tree with binary code (0s and 1s) as leaves. Below the illustration is a button labeled 'Manage alert rules (15)'. At the bottom, a link states 'The classic alerts can be accessed from here.'

Dashboard > Monitor - Alerts > Create rule

Create rule

Rules management

RESOURCE

hb-application-insights Visual Studio Enterprise

(1)

CONDITION

No condition defined, click on 'Add condition' to select a signal and define its logic

(2)

ACTIONS

ACTION GROUP NAME CONTAIN ACTIONS

No action group selected

Action rules (preview) allows you to define actions at scale as well as suppress actions. Learn more about this

ALERT DETAILS

* Alert rule name

(4)

Description

Enable rule upon creation Yes No

(5)

Configure signal logic

<- Back to signal selection

Custom log search

6 evaluations done in last 30 minutes Time range last 30 minutes

* Search query (2a)

```
traces
|where severityLevel > 4
```

[View result of query in Azure Monitor - Logs](#)

Query to be executed : traces | where severityLevel > 4 | count
For time window : 21-9-2019 12:42:07 - 21-9-2019 12:47:07

Alert logic

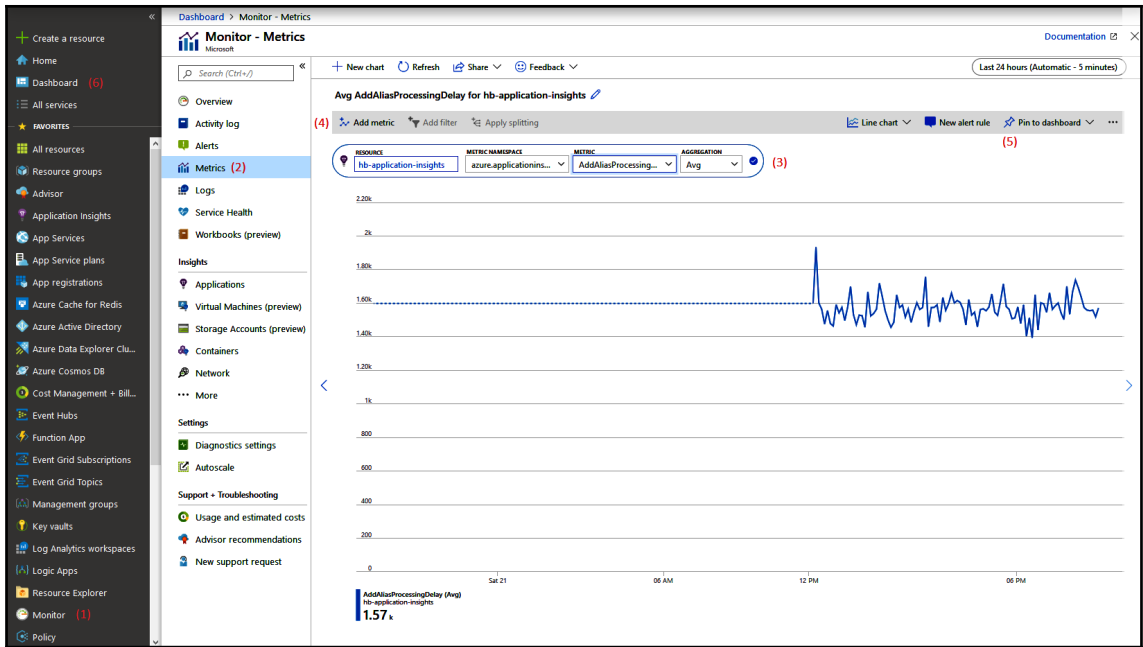
Based on (2b) Operator Threshold value (2c)

Condition preview

Whenever count of results in Custom log search log query for last 5 minutes is greater than 1. Evaluated every 5 minutes.

Evaluated based on

* Period (in minutes) (2c) Frequency (in minutes) (2d)



The screenshot shows the 'Create rule' and 'Configure signal logic' panels. The 'Create rule' panel on the left has sections for 'RESOURCE' (1) where 'hb-application-insights' is selected, 'CONDITION' (2) with an 'Add' button, 'ACTIONS' (3) with 'No action group selected', and 'ALERT DETAILS' (4) where an alert rule name is specified. The 'Configure signal logic' panel on the right shows a preview of the signal logic with a chart (1.58k) and configuration options: 'Alert logic (2a)' with 'Threshold' set to 'Static', 'Operator' set to 'Greater than', 'Aggregation type' set to 'Average', and 'Threshold value' set to '1.58k'. The 'Condition preview' shows the logic: 'Whenever the addaliasprocessingdelay is greater than <undefined>'. The 'Evaluated based on' section shows 'Aggregation granularity (Period)' set to '5 minutes' (2b) and 'Frequency of evaluation' set to 'Every 1 Minute' (2c). A 'Done' button (2d) is at the bottom right.

Dashboard > Application Insights > hb-application-insights - Search

Application Insights

hb-application-insights - Search

Refresh Reset Logs (Analytics) Feedback Help

Local time: 9/21/2019 11:01 AM - 9/22/2019 11:01 AM Event types: All (2)

Search

Place search terms here, e.g., an Operation ID or trace text (optional)

2.6 M total results between 9/21/2019 11:01:00 AM and 9/22/2019 11:01:30 AM (1 day 30 seconds)

Time: 1.5 M Dependencies: 670k Request: 412k Exception: 45k Error: 0 Event: 0 Awd: 0

Results Grouped results (7) Sort by time: Newest first Oldest first

- 22-9-2019 11:01:29 - TRACE Adding alias to database: ("Alias": "a1eb08dc-5ae9-430a-ac64-f604d6cb0081", "Url": "https://null.null/null") Severity level: Informational
- 22-9-2019 11:01:29 - TRACE Recording delay of 118 us in adding alias Severity level: Verbose
- 22-9-2019 11:01:29 - TRACE Trigger Details: MessageId: a231896155af428391ae8063d1a13642, DeliveryCount: 1, EnqueuedTime: 9/22/2019 9:01:29 AM, LockedUntil: 9/22/2019 9:02:29 AM Severity level: Informational
- 22-9-2019 11:01:29 - TRACE Executing 'AddAliasProcessor' (Reason='New ServiceBus message detected on 'AddAlias.', Id=d4ede0dd-38f5-4cca-a105-99a173e1e925) Severity level: Informational
- 22-9-2019 11:01:29 - REQUEST AddAliasProcessor Response code: 0 Server response time: 839.04 ms
- 22-9-2019 11:01:29 - DEPENDENCY sb://hb-servicebus-namespace.servicebus.windows.net/ | AddAlias Dependency duration: 27 ms Successful call: true Dependency name: Send
- 22-9-2019 11:01:29 - TRACE Executing 'UriShortner' (Reason='This function was programmatically called via the host APIs.', Id=1190626b-34bd-4741-9023-4b38eb68fad) Severity level: Informational
- 22-9-2019 11:01:29 - REQUEST Request URL host: https://hb-shortner-function-app.azurewebsites.net/ Response code: 202 Server response time: 539.9 ms

End-to-end transaction

Operation ID: ee8b64b37d0a0e41a58a82b4c43dbcd9.8f7e34e09fb36848b1b9762b9a9f2d23

Legend: Request (incoming) Dependency (outgoing) Exception Profiler trace Debug snapshot

EVENT	RES.	DURATION	0	15	25
hb-shortner-function-app LoadGenerator	0	1.5 s	[Timeline bar]		
hb-shortner-function-app POST /api/UriShortner	202	533 ms	[Timeline bar]		
hb-shortner-function-app UriShortner	202	526.9 ms	[Timeline bar]		
hb-servicebus-namespace AddAlias	22 ms	25.9 ms	[Timeline bar]		
Time Spent in Queue			[Timeline bar]		
hb-shortner-function-app AddAliasProcessor	0	2.1 s	[Timeline bar]		
hb-shortner-sql-server hb-shortner-sql-db		311 ms	[Timeline bar]		
hb-shortner-function-app GET /api/UriShortner/	404	635 ms	[Timeline bar]		
hb-shortner-function-app UriShortner	404	629.9 ms	[Timeline bar]		
hb-shortner-sql-server hb-shortner-sql-db		7 ms	[Timeline bar]		
hb-shortner-function-app GET /api/UriShortner/	404	660 ms	[Timeline bar]		
hb-shortner-function-app UriShortner	404	653.6 ms	[Timeline bar]		
hb-shortner-sql-server hb-shortner-sql-db		7 ms	[Timeline bar]		
hb-shortner-function-app GET /api/UriShortner/	404	908 ms	[Timeline bar]		
hb-shortner-function-app UriShortner	404	898.8 ms	[Timeline bar]		
hb-shortner-sql-server hb-shortner-sql-db		11 ms	[Timeline bar]		
hb-shortner-function-app GET /api/UriShortner/	404	918 ms	[Timeline bar]		
hb-shortner-function-app UriShortner	404	910.1 ms	[Timeline bar]		
hb-shortner-sql-server hb-shortner-sql-db		9 ms	[Timeline bar]		
hb-shortner-function-app GET /api/UriShortner/	404	821 ms	[Timeline bar]		
hb-shortner-function-app UriShortner	404	806.4 ms	[Timeline bar]		
hb-shortner-sql-server hb-shortner-sql-db		9 ms	[Timeline bar]		

hb-application-insights - Work Items

+ Create work item

- Search
- Availability
- Failures
- Performance
- Servers
- Browser
- Troubleshooting guides (pre...
- Monitoring
- Alerts
- Metrics
- Logs (Analytics)
- Workbooks
- Configure
- Properties
- Smart Detection settings
- Usage and estimated costs
- Continuous export
- Performance Testing
- API Access
- Work items (1)
- New support request

Delete

Set up tracking system configuration to create work items from Search events or Proactive detection events.

Tracking System
Azure DevOps Services

* URL (2)
https://dev.azure.com/

* Project Collection
DefaultCollection

* Project (3)
Demos

Authorization complete

Required (4)

Advanced Configuration (5)
 On Off

* Area (4)
Demos

Work Item Type
Bug

Assigned To (5)
Henry Been

By setting up authorization, you are authorizing this resource to create or edit work items with the configured tracking system.

hb-shortner-function-app
GET /api/UrlShortner/

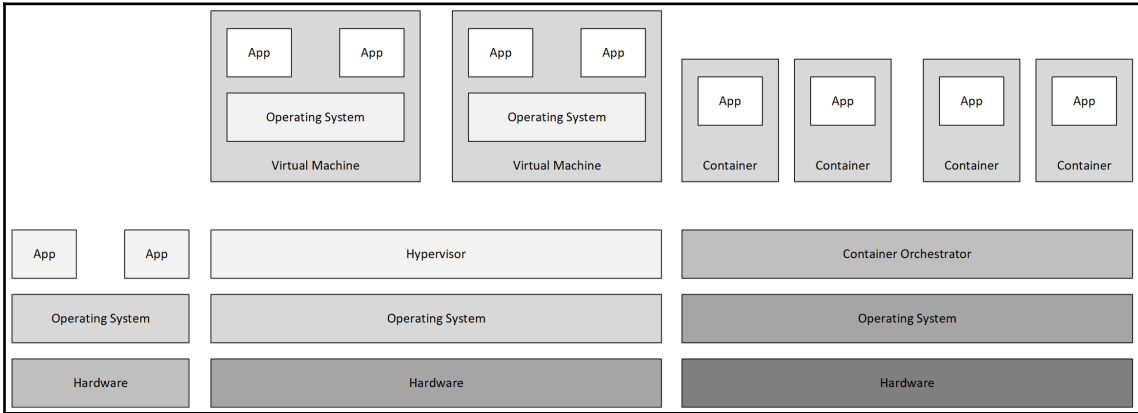
Dependency Properties Show all

Event time	22-9-2019 00:29:15 (Local time)	...
Dependency type	HTTP	...
Result code	404	...
Dependency call status	false	...
Dependency duration	723 ms	...
Remote dependency name	GET /api/UrlShortner/	...

Custom Properties

HostInstanceId	1f8e8b97-d3c2-49ef-ab36-8697e8ebf54e	...
InvocationId	6e5c6d40-9a2a-451d-9f9a-ec97e58da97	...
Category	Function.LoadGenerator	...
LogLevel	Information	...

Chapter 12: Containers



Create a new ASP.NET Core web application

.NET Core ASP.NET Core 3.0

- Empty**
An empty project template for creating an ASP.NET Core application. This template does not have any content in it.
- API**
A project template for creating an ASP.NET Core application with an example Controller for a RESTful HTTP service. This template can also be used for ASP.NET Core MVC Views and Controllers.
- Web Application**
A project template for creating an ASP.NET Core application with example ASP.NET Razor Pages content.
- Web Application (Model-View-Controller)**
A project template for creating an ASP.NET Core application with example ASP.NET Core MVC Views and Controllers. This template can also be used for RESTful HTTP services.
- Angular**
A project template for creating an ASP.NET Core application with Angular
- React.js**
A project template for creating an ASP.NET Core application with React.js

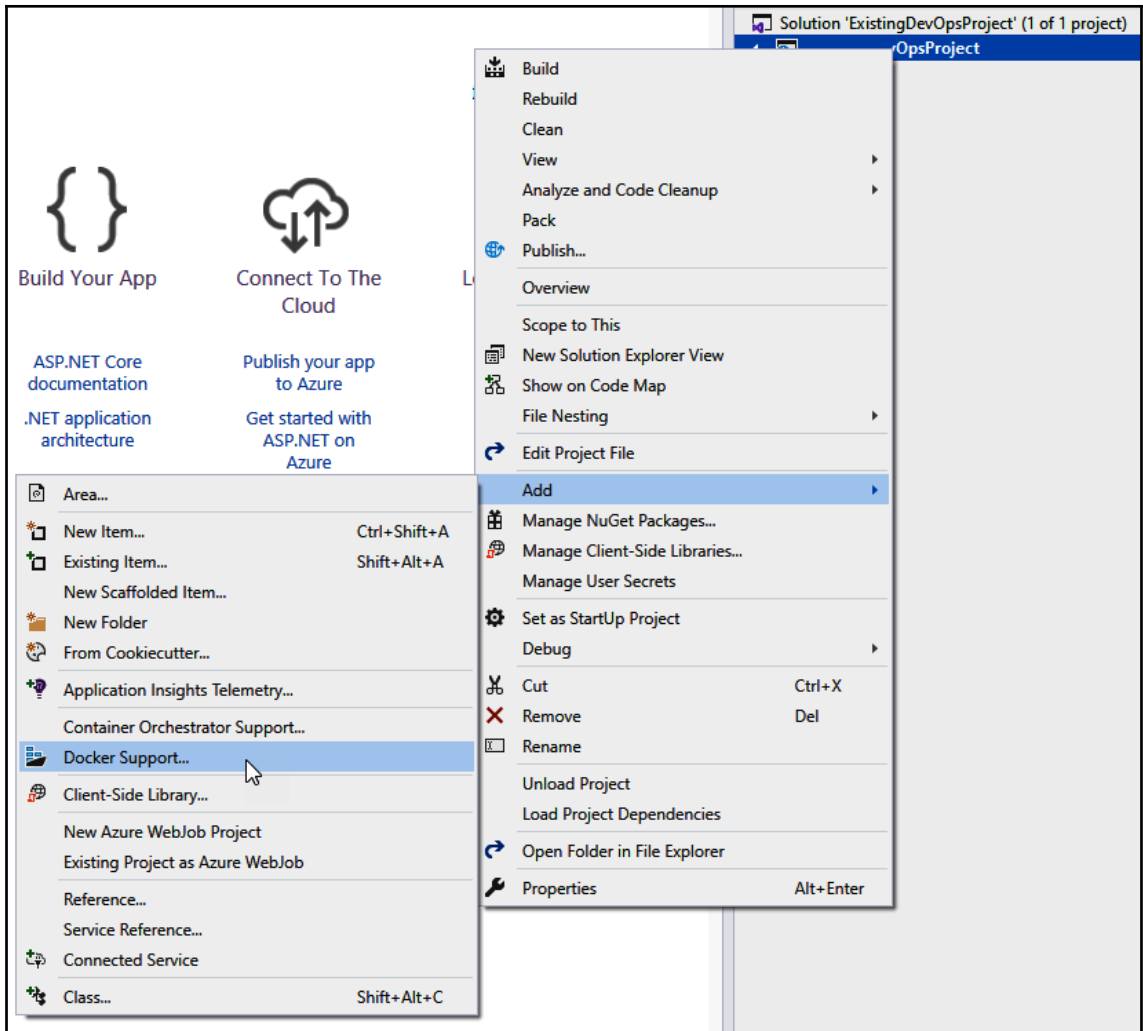
[Get additional project templates](#)

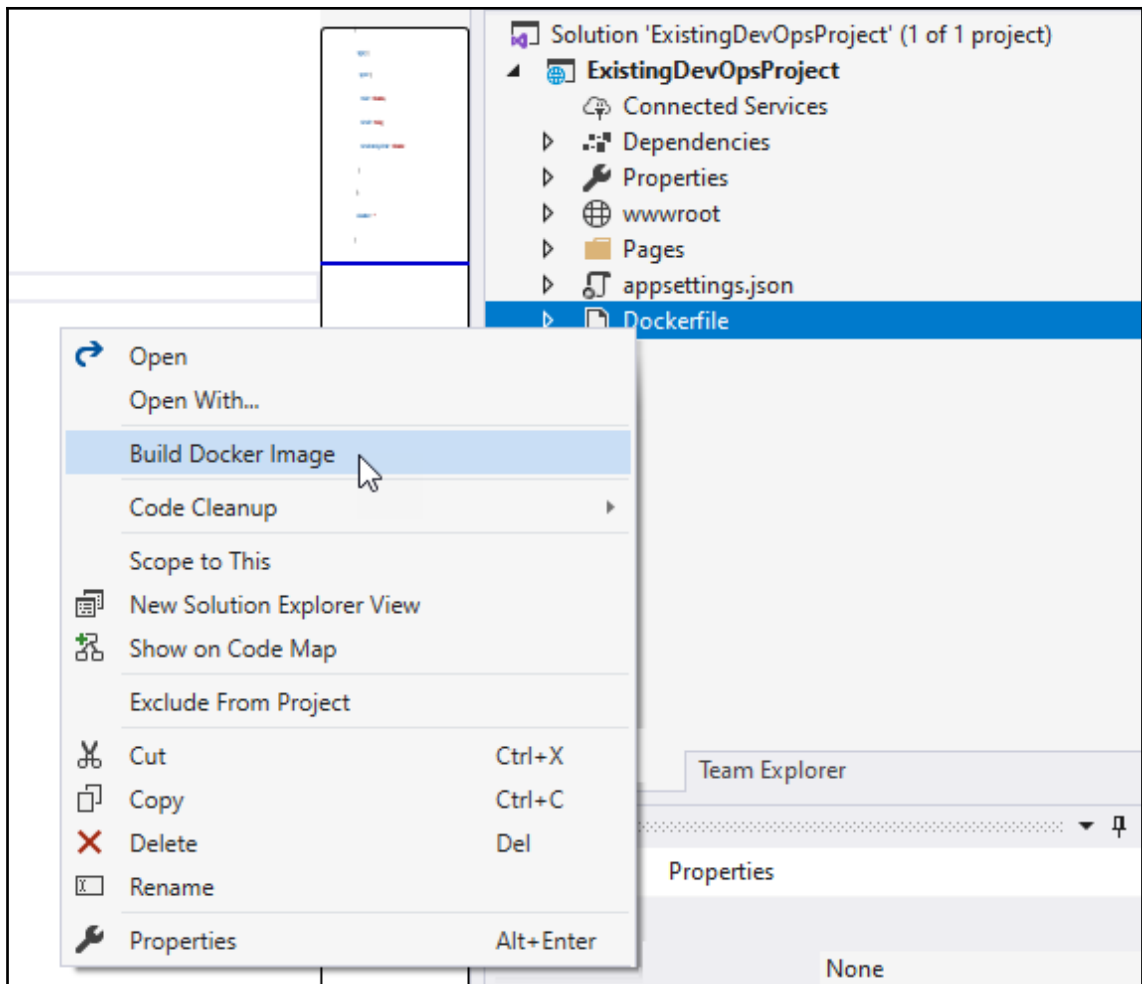
Authentication
No Authentication
[Change](#)

Advanced
 Configure for HTTPS
 Enable Docker Support
(Requires [Docker Desktop](#))
Linux

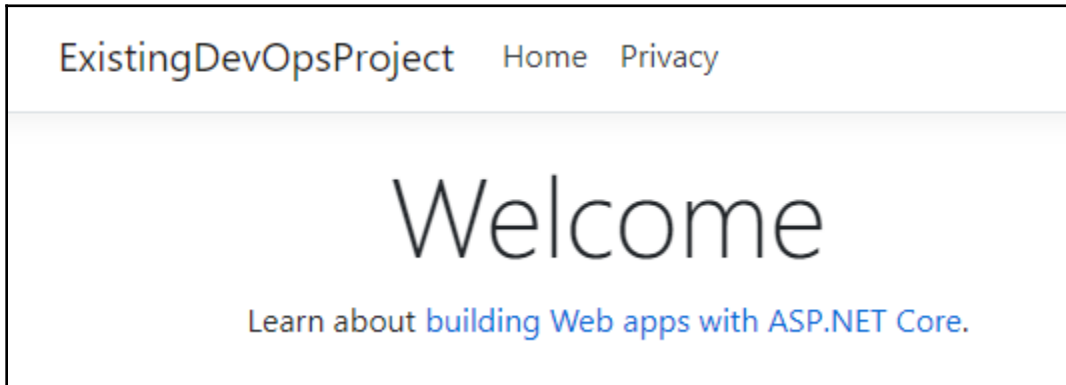
Author: Microsoft
Source: .NET Core 3.0.0

[Back](#) [Create](#)





```
Output
Show output from: Build
1>7a6b64767b0b: Verifying Checksum
1>7a6b64767b0b: Download complete
1>8d691f585fa8: Pull complete
1>a9e6ceefc5a0: Pull complete
1>68f6aee67b91: Pull complete
1>7a6b64767b0b: Pull complete
1>Digest: sha256:803b70d9de2c57a168af4cc7d44e77a9c0591b49ce2af73d50c344aa22048eda
1>9526604e089d: Pull complete
1>Status: Downloaded newer image for mcr.microsoft.com/dotnet/core/aspnet:3.0-buster-slim
1> ---> 930743cb4e19
1>Step 2/19 : WORKDIR /app
1> ---> Running in 0647825bde9c
1>Removing intermediate container 0647825bde9c
1> ---> 63b2259f1757
1>Step 3/19 : EXPOSE 80
1> ---> Running in a8718f4dea0b
1>Removing intermediate container a8718f4dea0b
1> ---> 1639396c909c
1>Step 4/19 : EXPOSE 443
1> ---> Running in 594f1e2f78aa
1>Removing intermediate container 594f1e2f78aa
1> ---> 1dc73afde262
1>Step 5/19 : FROM mcr.microsoft.com/dotnet/core/sdk:3.0-buster AS build
1>3.0-buster: Pulling from dotnet/core/sdk
1>c7b7d16361e0: Pulling fs layer
```



New Docker Registry service connection ✕

Registry type

Docker Hub Others Azure Container Registry

Subscription

Subscription MPN 3fifty (25c0e6b6-f9b9-4eba-9c72-2b6cfe7c... ▼

Azure container registry

msftazuredevops ▼

Details

Service connection name

MSFT Container Registry

Description (optional)









Security

Grant access permission to all pipelines


✓ Connect ✓ Select **Configure** Review

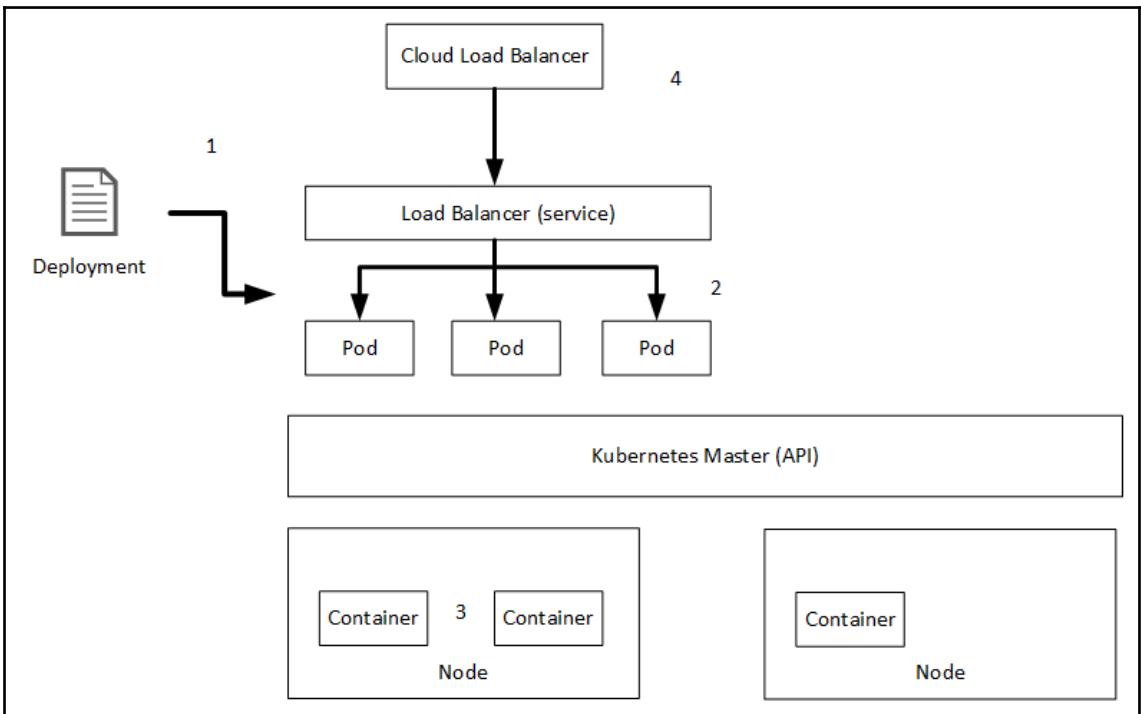
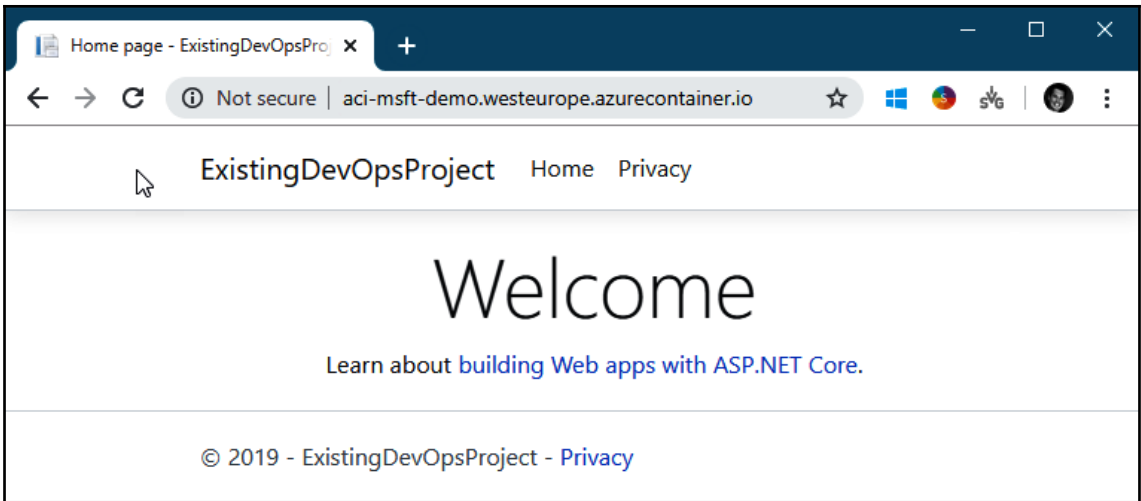
New pipeline

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

<input type="checkbox"/> Name ↑↓	Type ↑↓	Location ↑↓
 aci-demo-app	Container instances	West Europe



Showing 1 to 2 of 2 records.

<input type="checkbox"/>	Name ↑↓
<input type="checkbox"/>	 MC_mpn-rg-kubernetes_mykubernetescluster_westeurope
<input type="checkbox"/>	 mpn-rg-kubernetes

<input type="checkbox"/>	Name ↑↓	Type ↑↓
<input type="checkbox"/>	 aks-agentpool-42433103-nsg	Network security group
<input type="checkbox"/>	 aks-agentpool-42433103-routetable	Route table
<input type="checkbox"/>	 aks-nodepool1-42433103-0	Virtual machine
<input type="checkbox"/>	 aks-nodepool1-42433103-0_OsDisk_1_61dfb807a94742c0af63b2d8ad371d78	Disk
<input type="checkbox"/>	 aks-nodepool1-42433103-nic-0	Network interface
<input type="checkbox"/>	 aks-vnet-42433103	Virtual network
<input type="checkbox"/>	 nodepool1-availabilitySet-42433103	Availability set

The screenshot shows the Kubernetes dashboard interface. The left sidebar contains navigation options: Overview, Namespaces, Nodes, Persistent Volumes, Roles, Storage Classes, Workloads, Cron Jobs, Daemon Sets, Deployments, Jobs, Pods, Replica Sets, Replication Controllers, Stateful Sets, Discovery and Load Balancing, Ingresses, Services, Config and Storage, Config Maps, and Persistent Volume Claims. The main content area is titled 'Discovery and Load Balancing' and is divided into two sections: 'Services' and 'Config and Storage'.

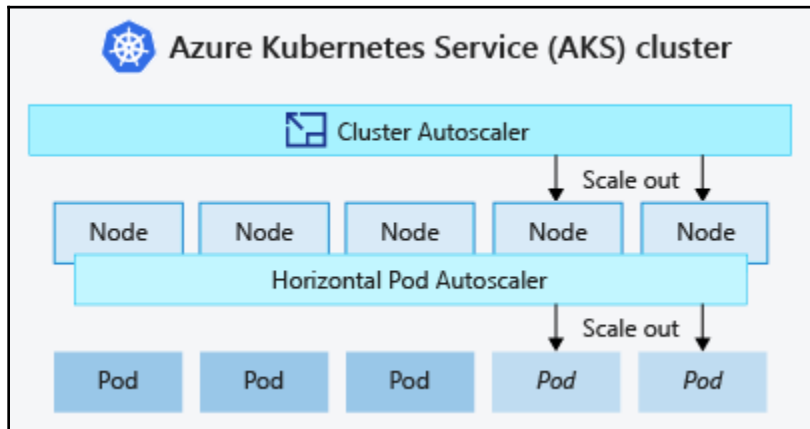
Services Table:

Name	Labels	Cluster IP	Internal endpoints	External endpoints	Age
kubernetes	component: apiserver provider: kubernetes	10.0.0.1	kubernetes:443 TCP	-	35 minutes

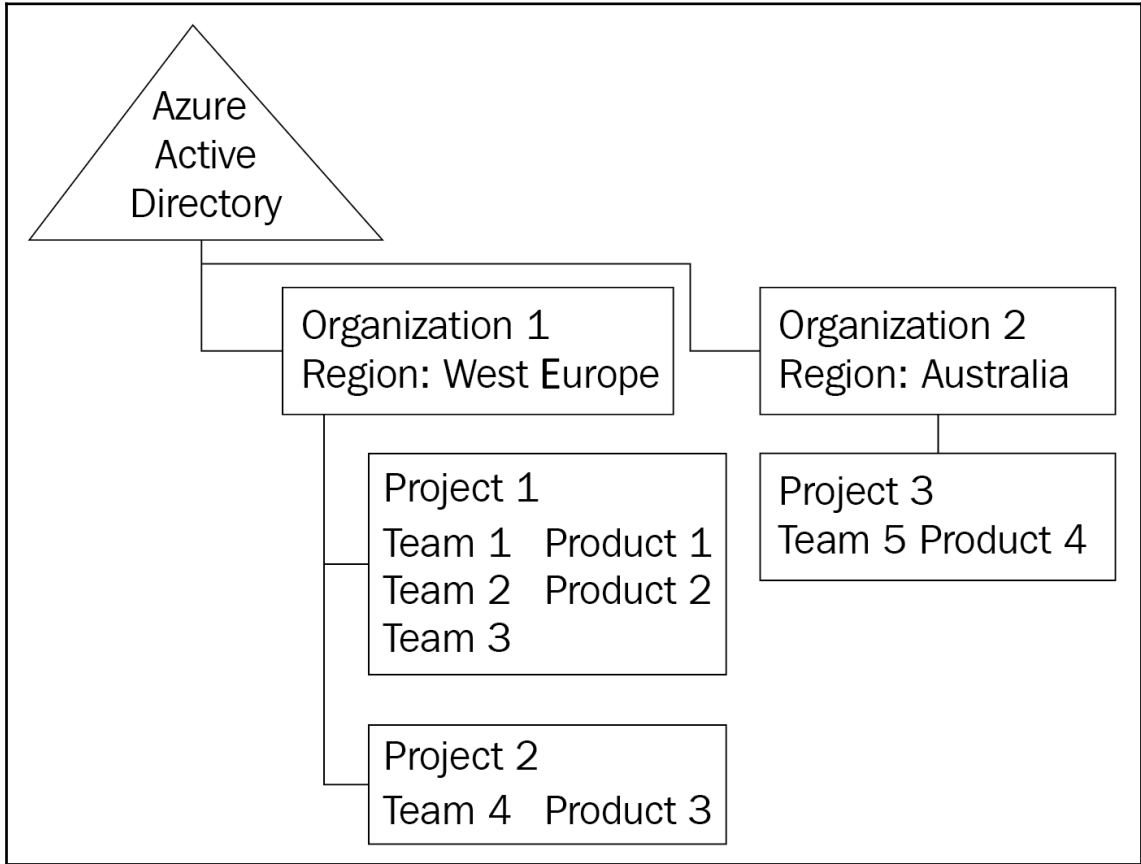
Config and Storage Section:

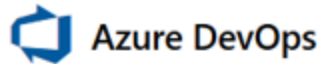
Secrets Table:

Name	Type	Age
default-token-84pr	kubernetes.io/service-account-token	35 minutes



Chapter 13: Planning Your Azure DevOps Organization





packtdemohb@outlook.com

Get started with Azure DevOps

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

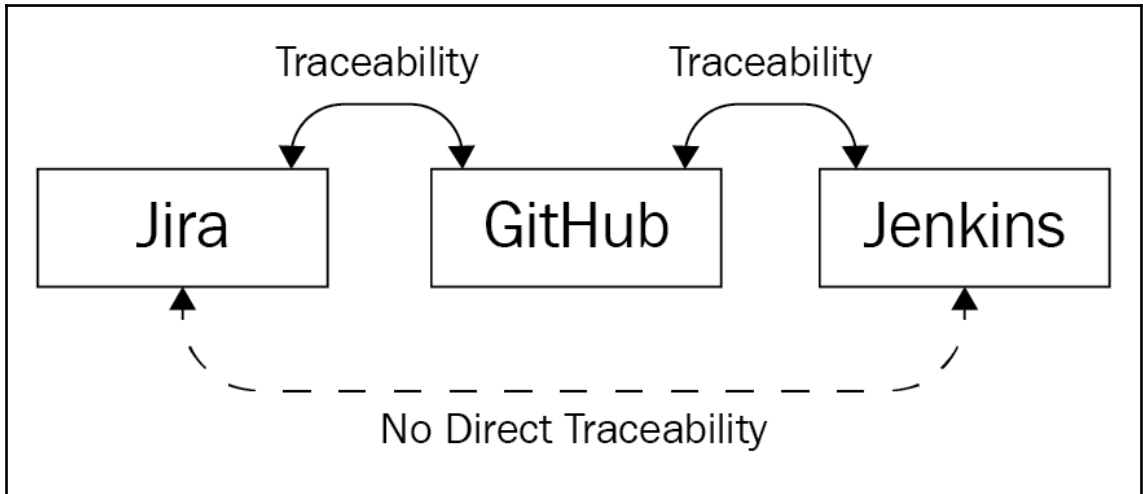
- I would like information, tips, and offers about Azure DevOps and other Microsoft products and services. [Privacy Statement](#).

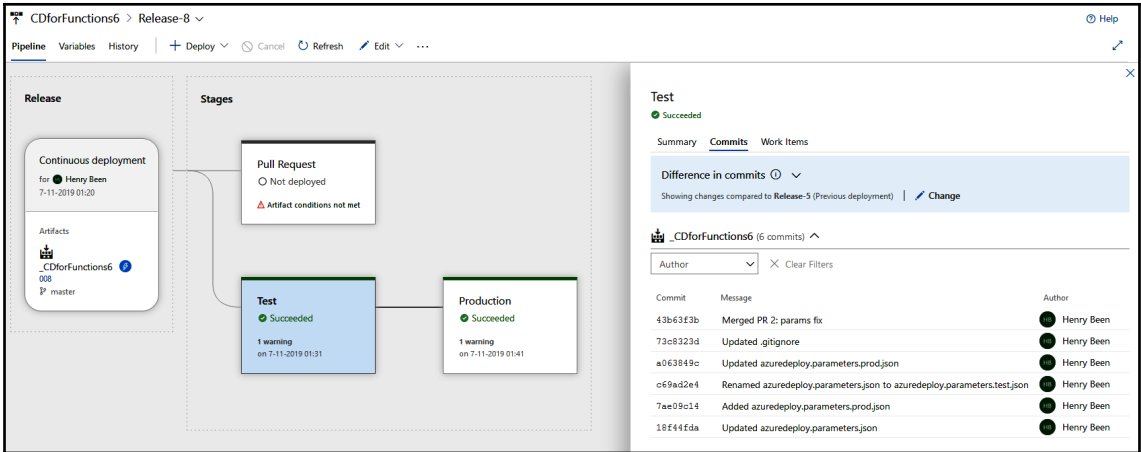
Country/region

Netherlands ∨

Continue

The screenshot shows the Azure DevOps interface for a pipeline named 'CDforFunctions6'. A modal dialog titled 'Permissions for CDforFunctions6' is open, displaying a list of roles and their permissions. The 'Contributors' role is selected. The permissions list includes tasks such as 'Get sources', 'Build project', 'Archive files', 'Publish Artifact: function-binaries', 'Copy Files to: \$(artifactstagingdirectory)\arm-copy-files', and 'Publish Artifact: function-binaries copy'. The 'Access Control Summary' on the right shows that most permissions are set to 'Allow (inherited)', with 'Stop builds' set to 'Not set'.





	CI	CD	IaC	next ?
Team 1	✓	✓	experimenting	
Team 2	✓	✓		
Team 3	✓	WIP		
Team 4	✓	✓		
Team 5	✓			