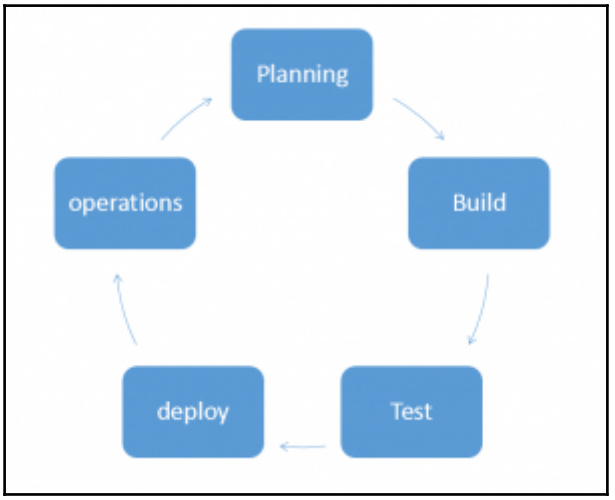
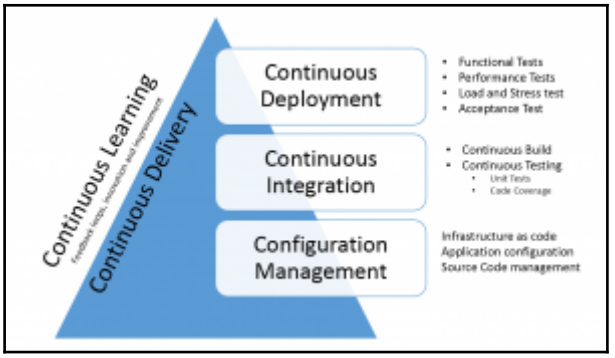
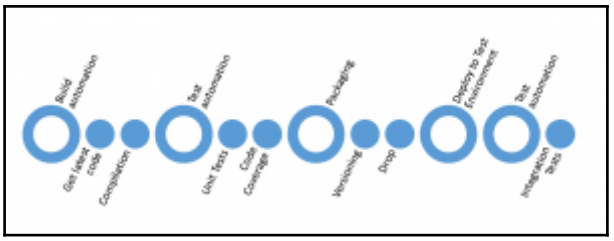
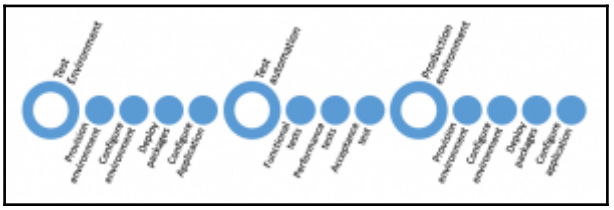
Graphic bundle

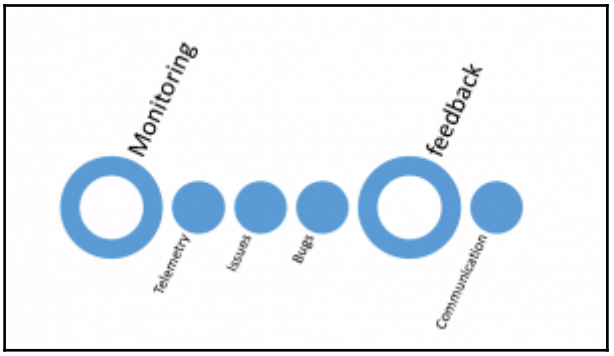
Chapter 1: Introducing DevOps



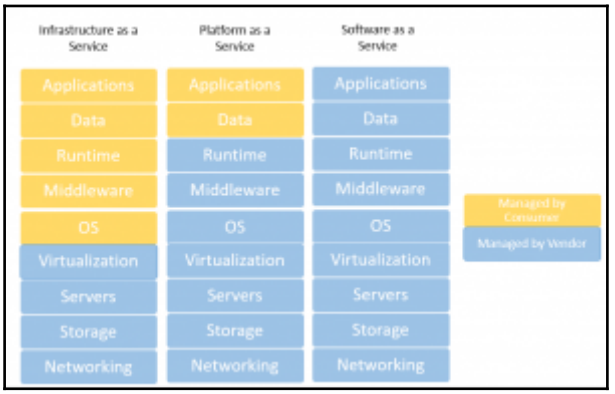


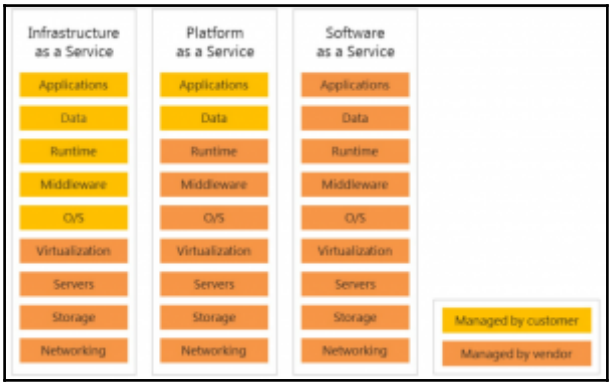

Build automation
Get latest code
Compilation
Test automation
Unit tests
Code Coverage
Packaging
Versioning
Drop
Deploy to Test Environment
Test automation
Integration Tests

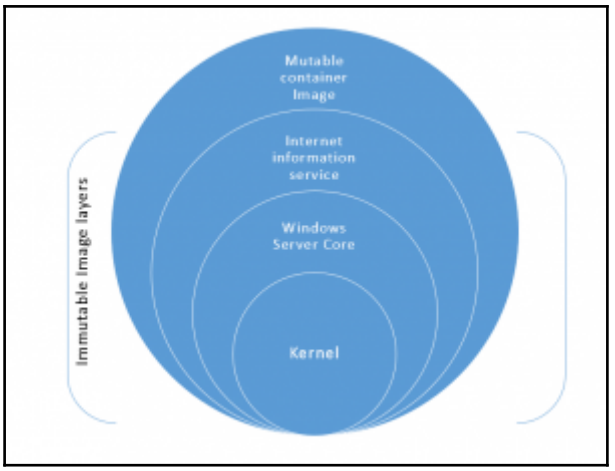

Test Environment
Provision environment
Configure environment
Deploy packages
Configure application
Test automation
Functional tests
Performance tests
Acceptance test
Production environment
Provision environment
Configure environment
Deploy packages
Configure application


Monitoring
Telemetry
Issues
Bugs
feedback
Communication

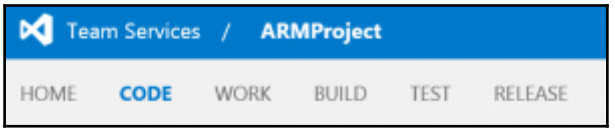
Chapter 2: DevOps Tools and Technologies

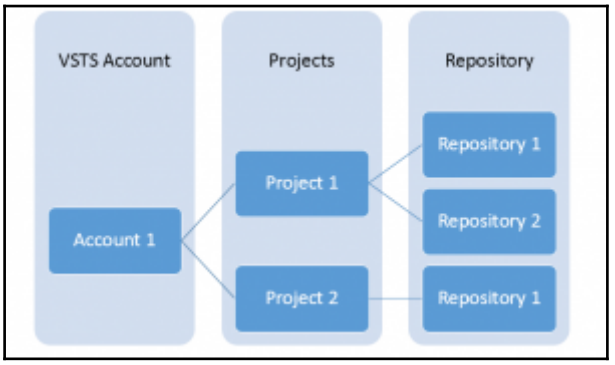


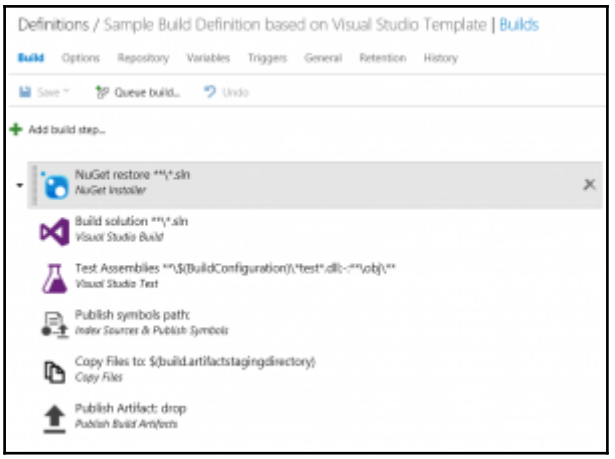


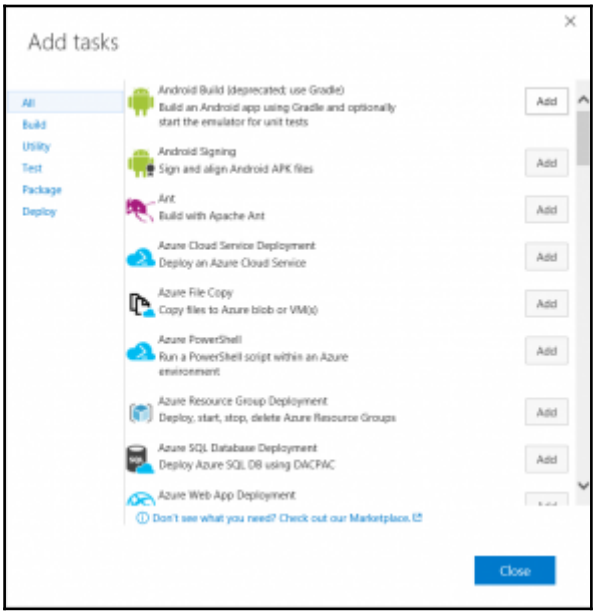

Mutable container Image
Internet information service
Windows Server Core
Kernel
Immutable Image layers

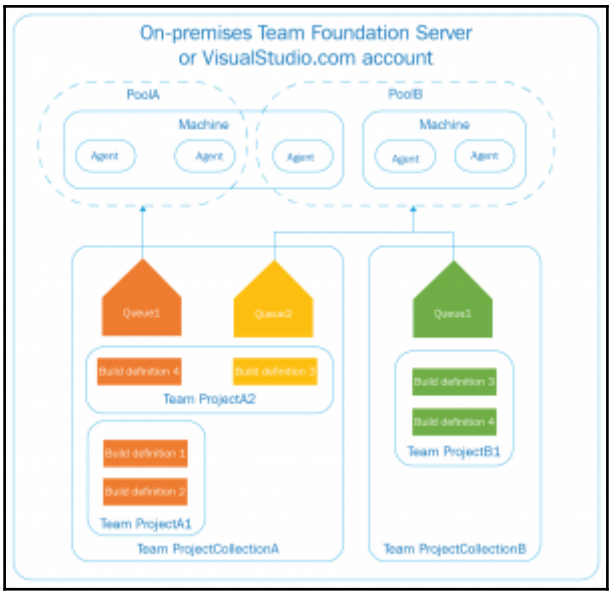
Team Services / ARMProject
HOME CODE WORK BUILD TEST RELEASE

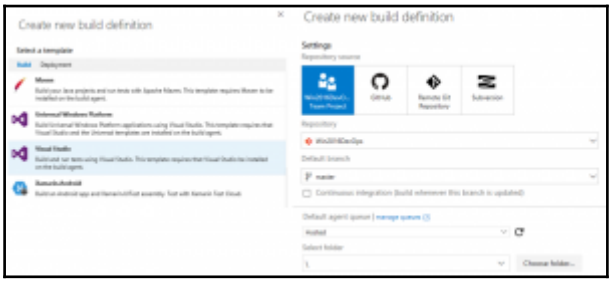

Team Services / ARMProject
HOME CODE WORK BUILD TEST RELEASE

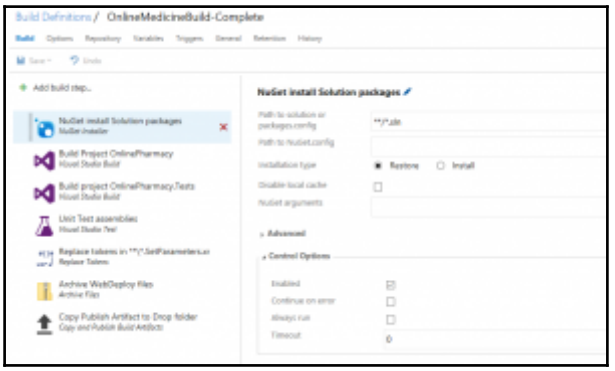

VSTS Account
Projects
Repository
Account 1
Project 1
Project 2
Repository 1
Repository 2
Repository 1

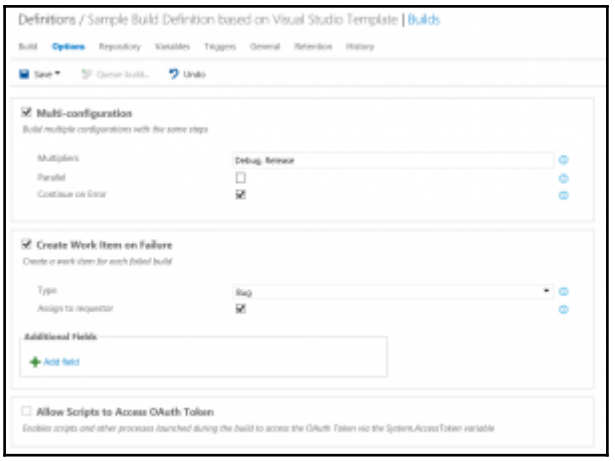

Definitions / Sample Build Definition based on Visual Studio Template | Builds
Build
Options
Repository
Variables
Triggers
General
Retention
History
Save
Queue build...
Undo
Add build step...
NuGet restore ***.sln
NuGet Installer
Build solution ***.sln
Visual Studio Build
Test Assemblies **\$(BuildConfiguration)*test*.dll;-:**\obj**
Visual Studio Test
Publish symbols path:
Index Sources & Publish Symbols
Copy Files to: $(build.artifactstagingdirectory)
Copy Files
Publish Artifact: drop
Publish Build Artifacts

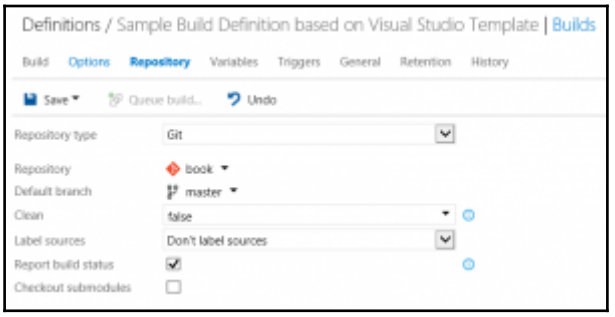

Add tasks
All
Build
Utility
Test
Package
Deploy
Android Build (deprecated; use Gradle)
Build an Android app using Gradle and optionally start the emulator for unit tests
Add
Android Signing
Sign and align Android APK files
Add
Ant
Build with Apache Ant
Add
Azure Cloud Service Deployment
Deploy an Azure Cloud Service
Add
Azure File Copy
Copy files to Azure blob or VM(s)
Add
Azure PowerShell
Run a PowerShell script within an Azure environment
Add
Azure Resource Group Deployment
Deploy, start, stop, delete Azure Resource Groups
Add
Azure SQL Database Deployment
Deploy Azure SQL DB using DACPAC
Add
Azure Web App Deployment
Don't see what you need? Check out our Marketplace.
Close

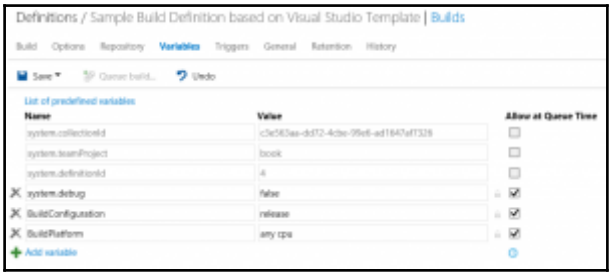

On-premises Team Foundation Server
or VisualStudio.com account
PoolA
PoolB
Machine
Machine
Agent
Agent
Agent
Agent
Agent
Queue1
Queue2
Queue1
Build definition 4
Build definition 3
Team ProjectA2
Build definition 3
Build definition 4
Team ProjectB1
Build definition 1
Build definition 2
Team ProjectA1
Team ProjectCollectionA
Team ProjectCollectionB

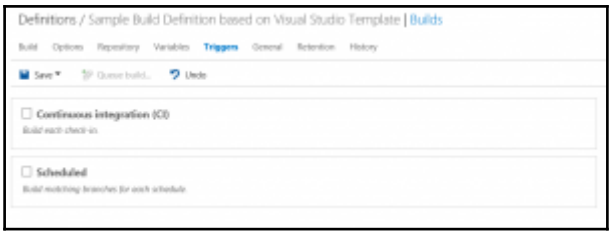

Create new build definition
Create new build definition
Settings

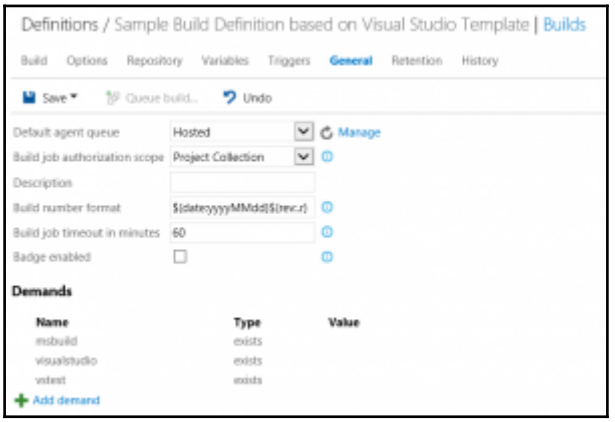

Build Definitions / OnlineMedicineBuild-Complete
Add build step...
NuGet install Solution packages
Build Project OnlinePharmacy
Build project OnlinePharmacy.Tests
Unit Test assemblies
Archive WebDeploy files
Copy Publish Artifact to: Drop folder
NuGet install Solution packages
Restore
Install
Advanced
Control Options

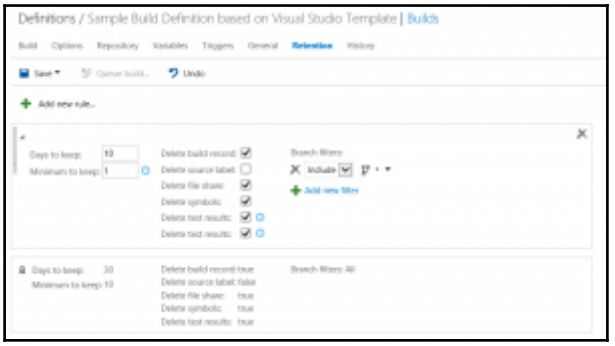

Definitions / Sample Build Definition based on Visual Studio Template | Builds
Build
Options
Repository
Variables
Triggers
General
Retention
History
Save
Undo
Multi-configuration
Multipliers
Debug, Release
Parallel
Continue on Error
Create Work Item on Failure
Type
Bug
Assign to requestor
Additional Fields
Add field
Allow Scripts to Access OAuth Token

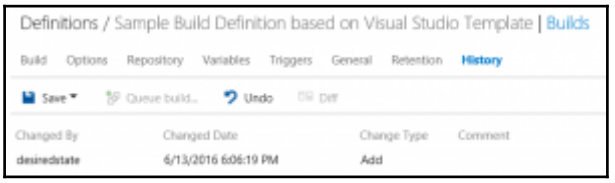

Definitions / Sample Build Definition based on Visual Studio Template | Builds
Build
Options
Repository
Variables
Triggers
General
Retention
History
Save
Queue build...
Undo
Repository type
Git
Repository
book
Default branch
master
Clean
false
Label sources
Don't label sources
Report build status
Checkout submodules


Definitions / Sample Build Definition based on Visual Studio Template | Builds
Build
Options
Repository
Variables
Triggers
General
Retention
History
Save
Queue build...
Undo
List of predefined variables
Name
Value
Allow at Queue Time
system.collectionId
system.teamProject
book
system.definitionId
4
system.debug
false
BuildConfiguration
release
BuildPlatform
any cpu
Add variable

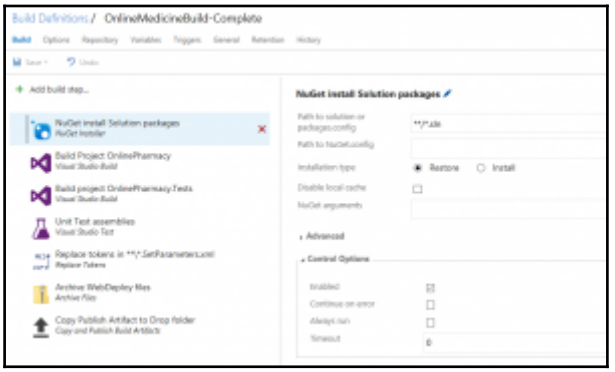

Definitions / Sample Build Definition based on Visual Studio Template | Builds
Build
Options
Repository
Variables
Triggers
General
Retention
History
Save
Queue build...
Undo
Continuous integration (CI)
Scheduled

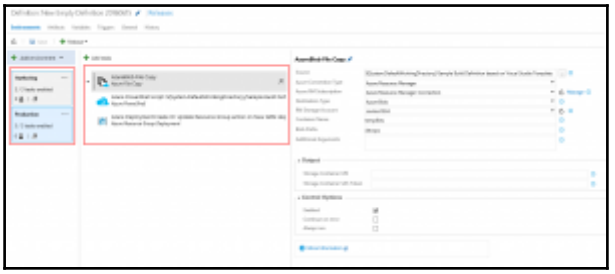

Definitions / Sample Build Definition based on Visual Studio Template | Builds
Build
Options
Repository
Variables
Triggers
General
Retention
History
Save
Queue build...
Undo
Default agent queue
Hosted
Manage
Build job authorization scope
Project Collection
Description
Build number format
$(date:yyyyMMdd)$(rev:.r)
Build job timeout in minutes
60
Badge enabled
Demands
Name
Type
Value
msbuild
exists
visualstudio
exists
vstest
exists
Add demand

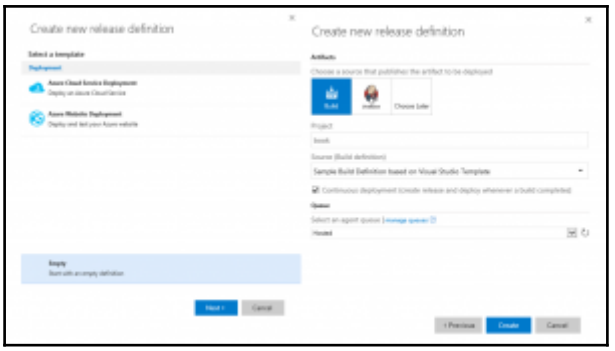

Definitions / Sample Build Definition based on Visual Studio Template | Builds
Build
Options
Repository
Variables
Triggers
General
Retention
History
Save
Queue build...
Undo
Add new rule...
Days to keep:
Minimum to keep:
Delete build record:
Delete source label:
Delete file share:
Delete symbols:
Delete test results:
Delete test results:
Branch filters:
Include
Add new filter

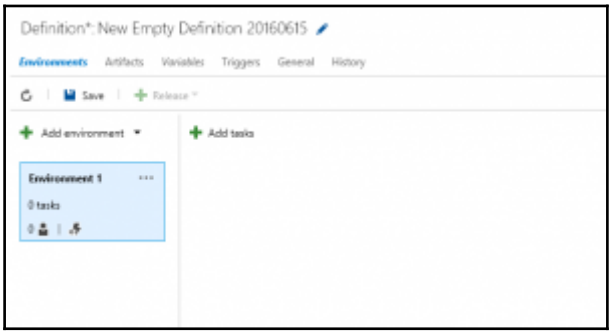

Definitions / Sample Build Definition based on Visual Studio Template | Builds
Build
Options
Repository
Variables
Triggers
General
Retention
History
Save
Queue build...
Undo
Diff
Changed By
Changed Date
Change Type
Comment
desiredstate
6/13/2016 6:06:19 PM
Add

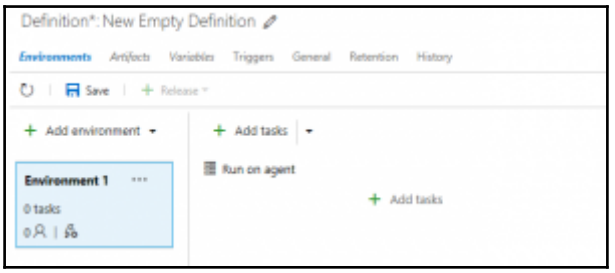
Permissions for OnlineMedicineBuild-Complete
Security

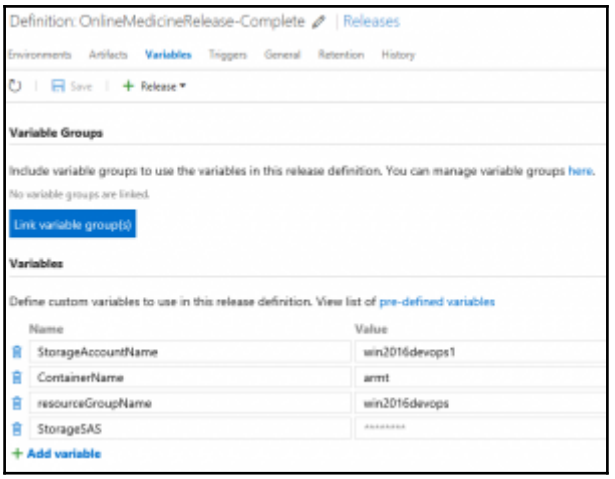

Build Definitions / OnlineMedicineBuild-Complete
NuGet install Solution packages

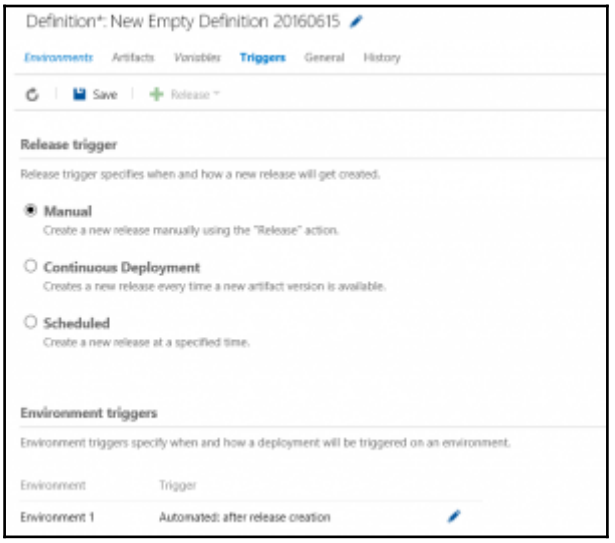


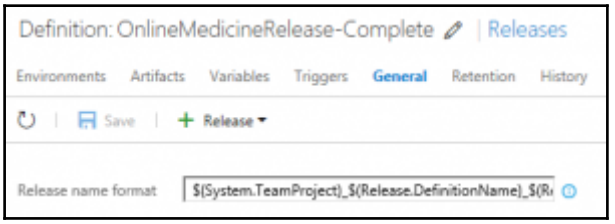

Create new release definition
Create new release definition

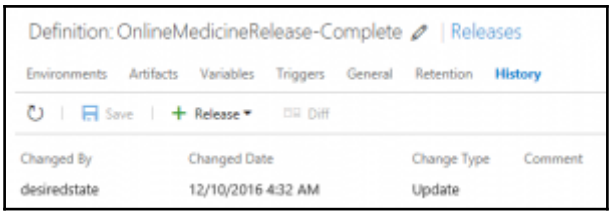

Definition*: New Empty Definition 20160615
Environments
Artifacts
Variables
Triggers
General
History
Save
Release
Add environment
Add tasks
Environment 1
0 tasks

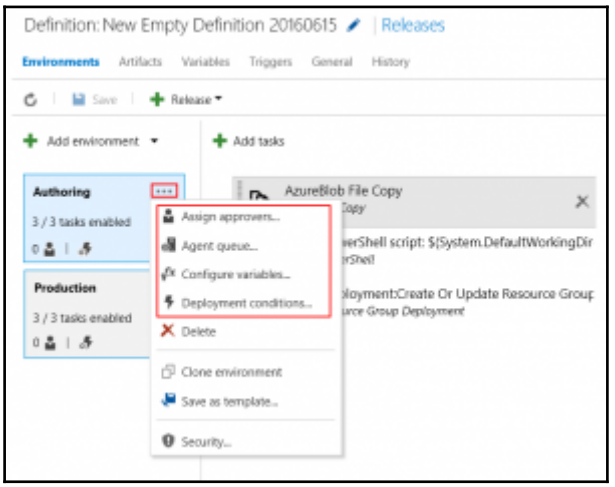

Definition*: New Empty Definition
Environments
Artifacts
Variables
Triggers
General
Retention
History
Save
Release
Add environment
Add tasks
Environment 1
0 tasks
Run on agent
Add tasks

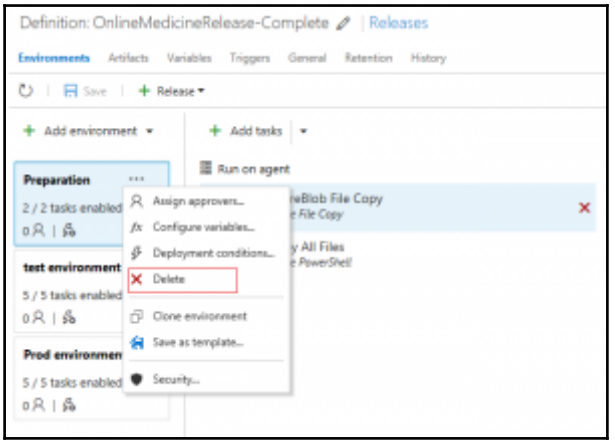

Definition: OnlineMedicineRelease-Complete
Releases
Environments
Artifacts
Variables
Triggers
General
Retention
History
Save
Release
Variable Groups
Include variable groups to use the variables in this release definition. You can manage variable groups here.
No variable groups are linked.
Link variable group(s)
Variables
Define custom variables to use in this release definition. View list of pre-defined variables
Name
Value
StorageAccountName
win2016devops1
ContainerName
armt
resourceGroupName
win2016devops
StorageSAS
Add variable

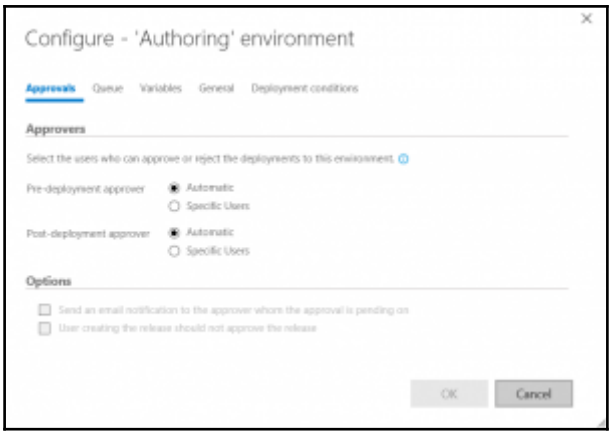

Definition*: New Empty Definition 20160615
Environments
Artifacts
Variables
Triggers
General
History
Save
Release
Release trigger
Release trigger specifies when and how a new release will get created.
Manual
Create a new release manually using the "Release" action.
Continuous Deployment
Creates a new release every time a new artifact version is available.
Scheduled
Create a new release at a specified time.
Environment triggers
Environment triggers specify when and how a deployment will be triggered on an environment.
Environment
Trigger
Environment 1
Automated: after release creation

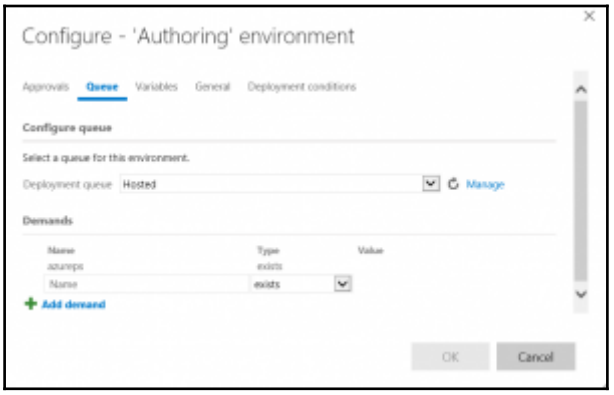

Definition: OnlineMedicineRelease-Complete
Releases
Environments
Artifacts
Variables
Triggers
General
Retention
History
Save
Release
Release name format
$(System.TeamProject)_$(Release.DefinitionName)_$(R

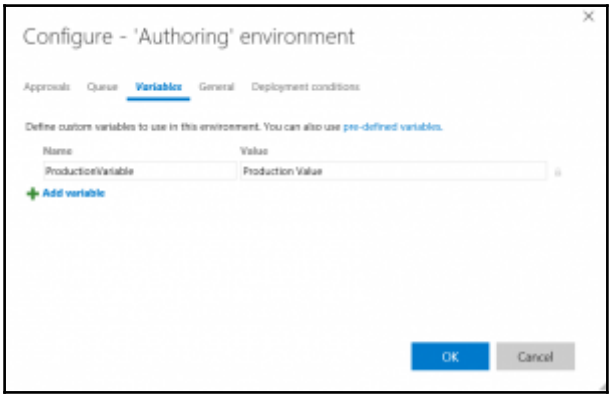

Definition: OnlineMedicineRelease-Complete
Releases
Environments
Artifacts
Variables
Triggers
General
Retention
History
Save
Release
Diff
Changed By
Changed Date
Change Type
Comment
desiredstate
12/10/2016 4:32 AM
Update

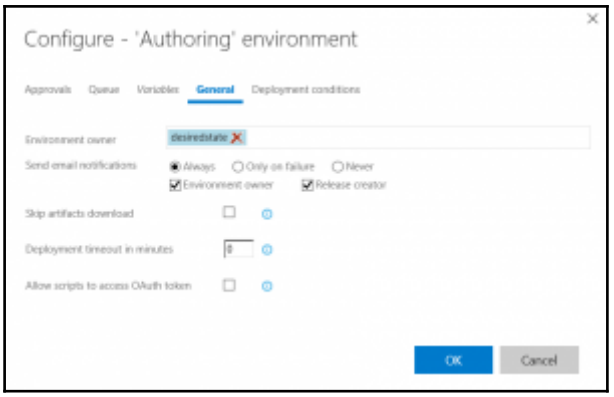

Definition: New Empty Definition 20160615
Releases
Environments
Artifacts
Variables
Triggers
General
History
Save
Release
Add environment
Add tasks
Authoring
3 / 3 tasks enabled
Production
3 / 3 tasks enabled
AzureBlob File Copy
Assign approvers...
Agent queue...
Configure variables...
Deployment conditions...
Delete
Clone environment
Save as template...
Security...

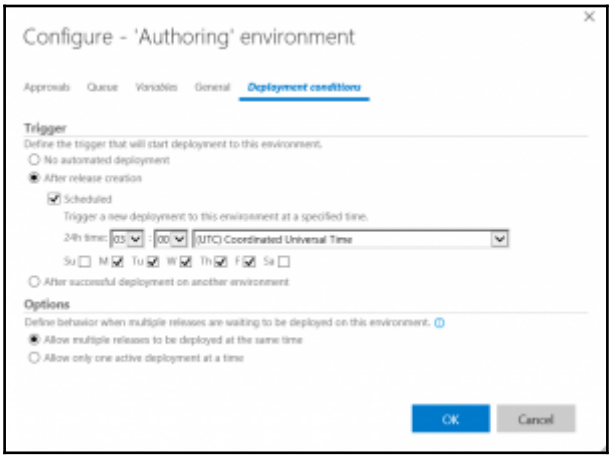

Definition: OnlineMedicineRelease-Complete
Releases
Environments
Artifacts
Variables
Triggers
General
Retention
History
Save
Release
Add environment
Add tasks
Run on agent
Preparation
2 / 2 tasks enabled
test environment
5 / 5 tasks enabled
Prod environmen
5 / 5 tasks enabled
Assign approvers...
Configure variables...
Deployment conditions...
Delete
Clone environment
Save as template...
Security...

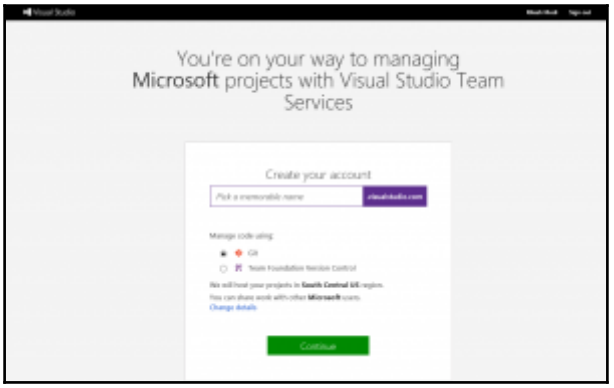

Configure - 'Authoring' environment
Approvals
Queue
Variables
General
Deployment conditions
Approvers
Select the users who can approve or reject the deployments to this environment.
Pre-deployment approver
Automatic
Specific Users
Post-deployment approver
Automatic
Specific Users
Options
Send an email notification to the approver whom the approval is pending on
User creating the release should not approve the release
OK
Cancel

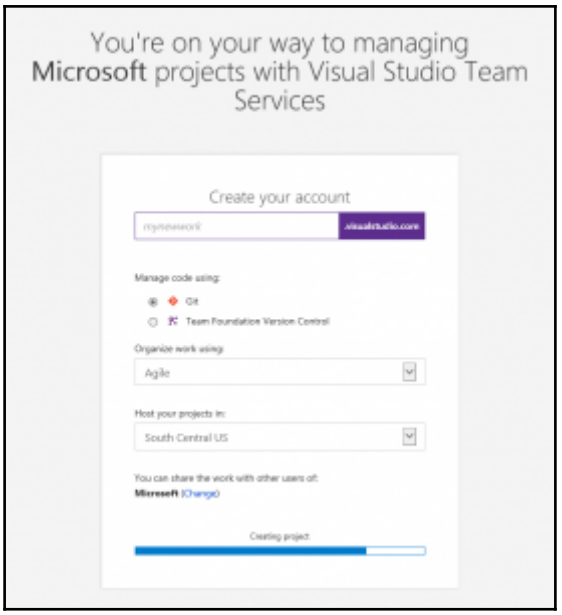

Configure - 'Authoring' environment
Approvals
Queue
Variables
General
Deployment conditions
Configure queue
Select a queue for this environment.
Deployment queue
Hosted
Manage
Demands
Name
Type
Value
azureps
exists
Name
exists
Add demand
OK
Cancel

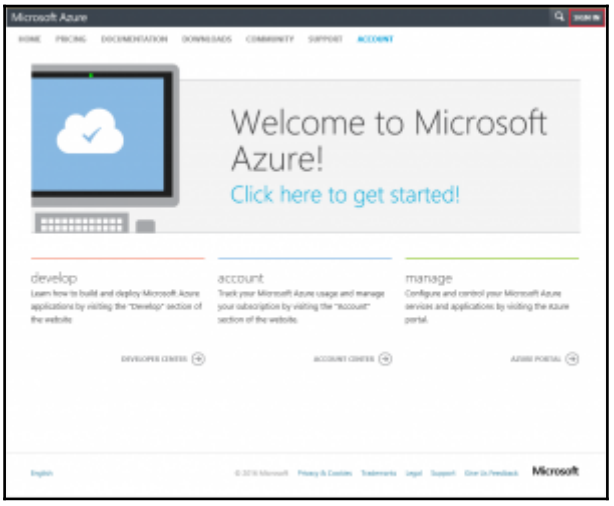

Configure - 'Authoring' environment
Approvals
Queue
Variables
General
Deployment conditions
Define custom variables to use in this environment. You can also use pre-defined variables.
Name
Value
ProductionVariable
Production Value
Add variable
OK
Cancel

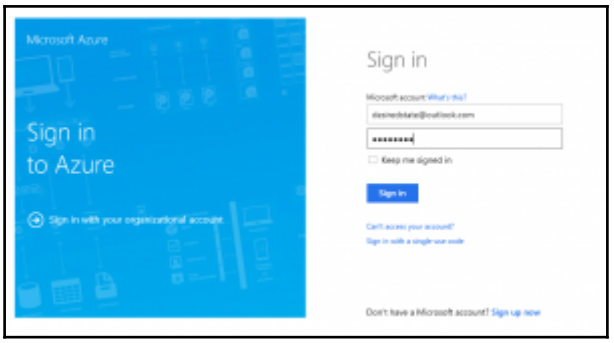

Configure - 'Authoring' environment
Approvals
Queue
Variables
General
Deployment conditions
Environment owner
desiredstate
Send email notifications
Always
Only on failure
Never
Environment owner
Release creator
Skip artifacts download
Deployment timeout in minutes
0
Allow scripts to access OAuth token
OK
Cancel

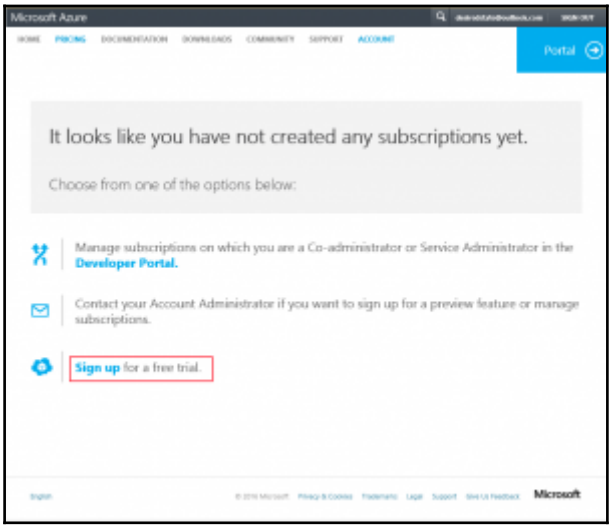

Configure - 'Authoring' environment
Approvals
Queue
Variables
General
Deployment conditions
Trigger
Define the trigger that will start deployment to this environment.
No automated deployment
After release creation
Scheduled
Trigger a new deployment to this environment at a specified time.
24h time:
03
00
(UTC) Coordinated Universal Time
Su
M
Tu
W
Th
F
Sa
After successful deployment on another environment
Options
Define behavior when multiple releases are waiting to be deployed on this environment.
Allow multiple releases to be deployed at the same time
Allow only one active deployment at a time
OK
Cancel

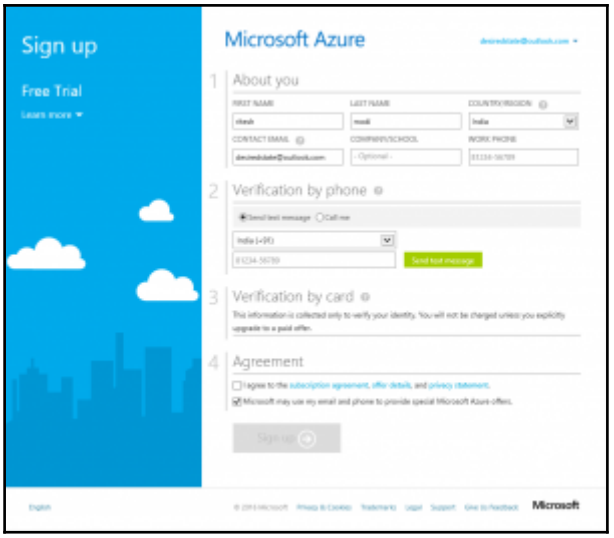

You're on your way to managing
Microsoft projects with Visual Studio Team
Services
Create your account
Continue


You're on your way to managing Microsoft projects with Visual Studio Team Services
Create your account
Manage code using:
Git
Team Foundation Version Control
Organize work using:
Agile
Host your projects in:
South Central US
You can share the work with other users of:
Microsoft (Change)
Creating project

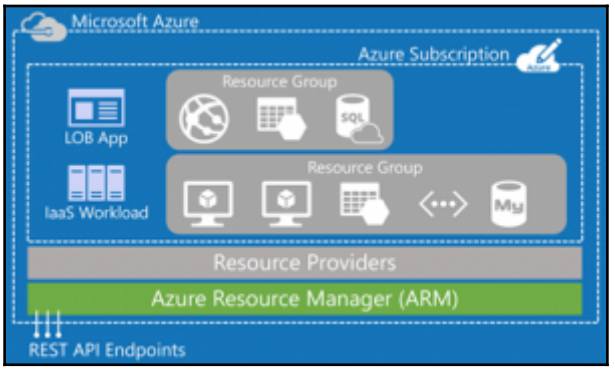

Microsoft Azure
HOME PRICING DOCUMENTATION DOWNLOADS COMMUNITY SUPPORT ACCOUNT
Welcome to Microsoft Azure!
Click here to get started!
develop
account
manage
Microsoft

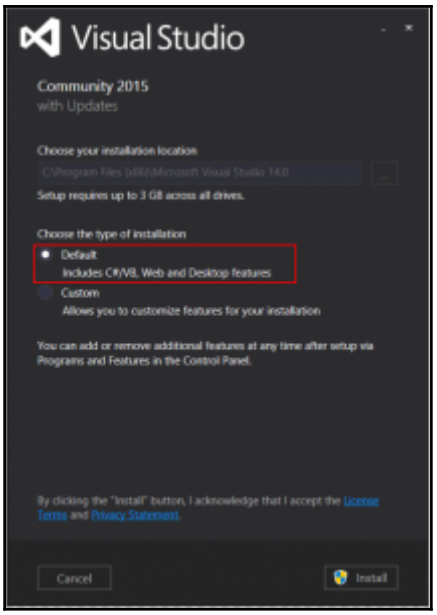

Microsoft Azure
Sign in
to Azure
Sign in with your organizational account
Sign in
Keep me signed in
Sign in
Don't have a Microsoft account? Sign up now

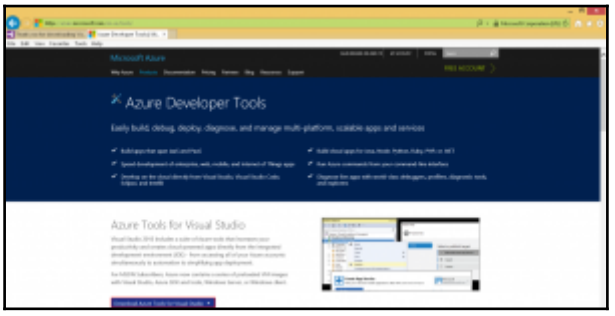

Microsoft Azure
HOME
PRICING
DOCUMENTATION
DOWNLOADS
COMMUNITY
SUPPORT
ACCOUNT
Portal
It looks like you have not created any subscriptions yet.
Choose from one of the options below:
Manage subscriptions on which you are a Co-administrator or Service Administrator in the Developer Portal.
Contact your Account Administrator if you want to sign up for a preview feature or manage subscriptions.
Sign up for a free trial.
Microsoft

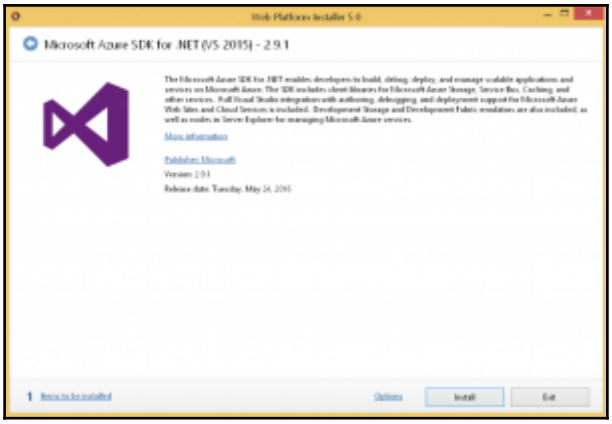

Sign up
Free Trial
Learn more
Microsoft Azure
1 About you
2 Verification by phone
3 Verification by card
This information is collected only to verify your identity. You will not be charged unless you explicitly upgrade to a paid offer.
4 Agreement
Microsoft

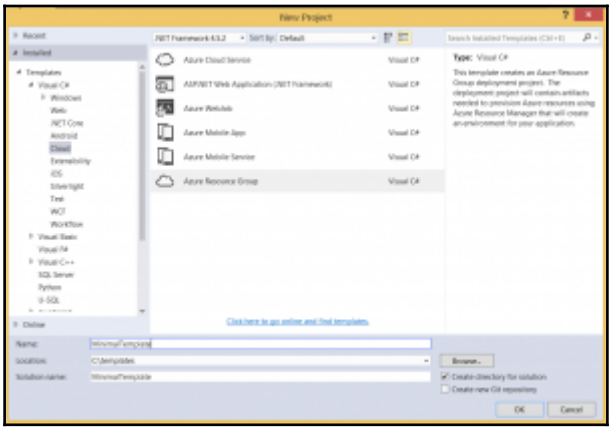
Chapter 3: DevOps Automation Primer

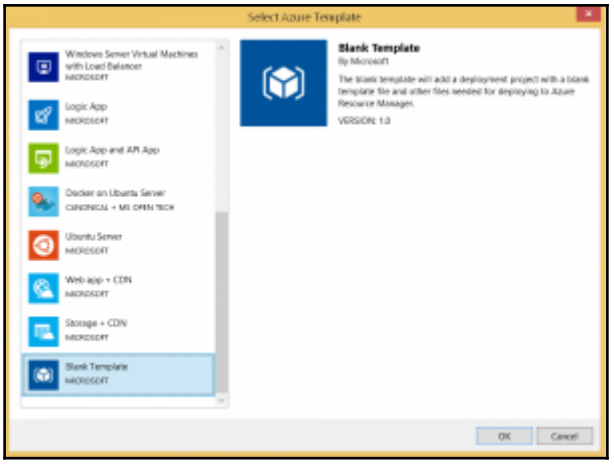


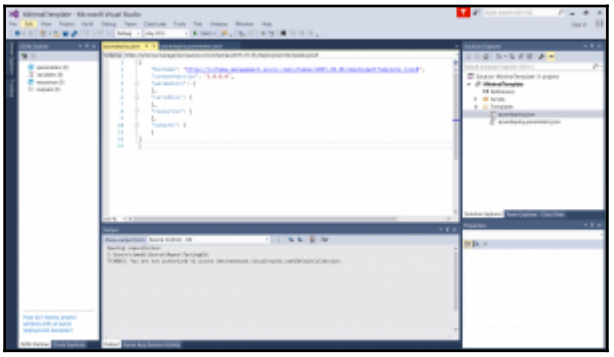

Visual Studio
Community 2015
with Updates
Choose your installation location
Setup requires up to 3 GB across all drives.
Choose the type of installation
Default
Includes C#/VB, Web and Desktop features
Custom
Allows you to customize features for your installation
You can add or remove additional features at any time after setup via Programs and Features in the Control Panel.
By clicking the "Install" button, I acknowledge that I accept the License Terms and Privacy Statement.
Cancel
Install

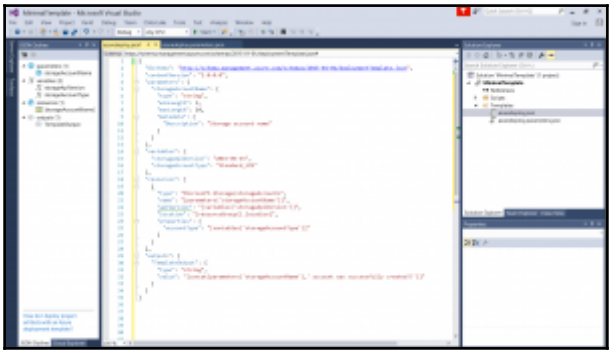

Azure Developer Tools
Azure Tools for Visual Studio

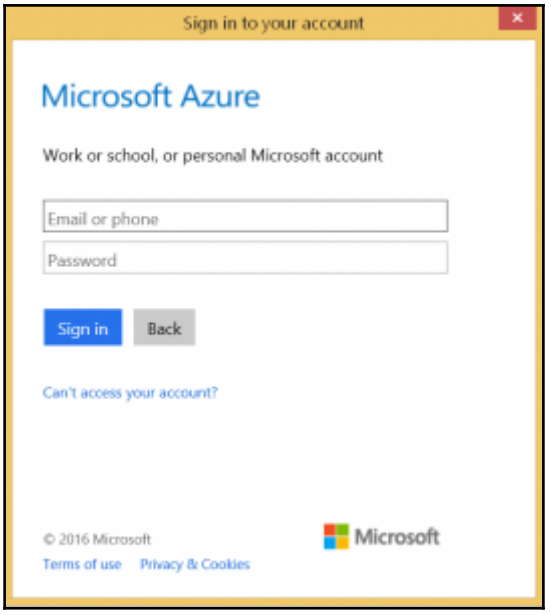

Web Platform Installer 5.0
Microsoft Azure SDK for .NET (VS 2015) - 2.9.1
The Microsoft Azure SDK for .NET enables developers to build, debug, deploy, and manage scalable applications and services on Microsoft Azure. The SDK includes client libraries for Microsoft Azure Storage, Service Bus, Caching, and other services. Full Visual Studio integration with authoring, debugging, and deployment support for Microsoft Azure Web Sites and Cloud Services is included. Development Storage and Development Fabric emulators are also included, as well as nodes in Server Explorer for managing Microsoft Azure services.
More information
Publisher: Microsoft
Version: 2.9.1
Release date: Tuesday, May 24, 2016
1 Items to be installed
Options
Install
Exit


New Project
Recent
Installed
Templates
Visual C#
Windows
Web
.NET Core
Android
Cloud
Extensibility
iOS
Silverlight
Test
WCF
Workflow
Visual Basic
Visual F#
Visual C++
SQL Server
Python
T-SQL
Online
Sort by: Default
Azure Cloud Service
ASP.NET Web Application (.NET Framework)
Azure Website
Azure Mobile App
Azure Mobile Service
Azure Resource Group
Visual C#
Type: Visual C#
This template creates an Azure Resource Group deployment project. The deployment project will contain artifacts needed to provision Azure resources using Azure Resource Manager that will create an environment for your application.
Click here to go online and find templates.
Name:
Location:
C:\temp\abc
Solution name:
Browse...
Create directory for solution
Create new Git repository
OK
Cancel


Select Azure Template
Windows Server Virtual Machines with Load Balancer
MICROSOFT
Logic App
MICROSOFT
Logic App and API App
MICROSOFT
Docker on Ubuntu Server
CANONICAL + MS OPEN TECH
Ubuntu Server
MICROSOFT
Web app + CDN
MICROSOFT
Storage + CDN
MICROSOFT
Blank Template
MICROSOFT
Blank Template
By Microsoft
The blank template will add a deployment project with a blank template file and other files needed for deploying to Azure Resource Manager.
VERSION: 1.0
OK
Cancel

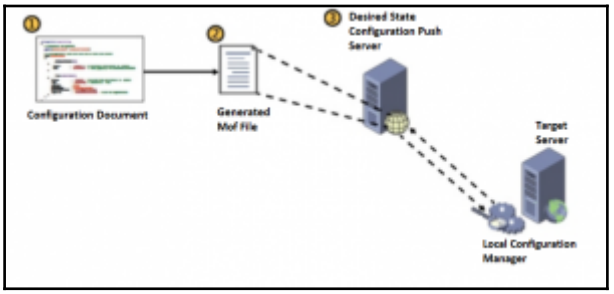


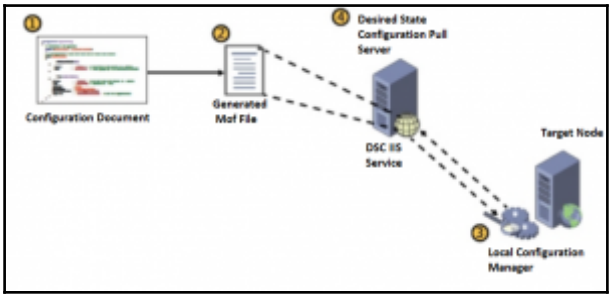


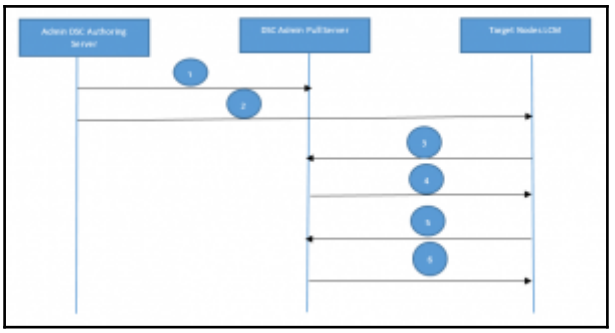



```
PS C:\> Invoke-Pester -Script "C:\Addition\Add-Numbers.Tests.ps1"
Describing test cases adding two numbers
  [+] checking when both the number are positive 405ms
  [+] checking when One number is positive and another negative 99ms
Tests completed in 504ms
Passed: 2 Failed: 0 Skipped: 0 Pending: 0

PS C:\>
```

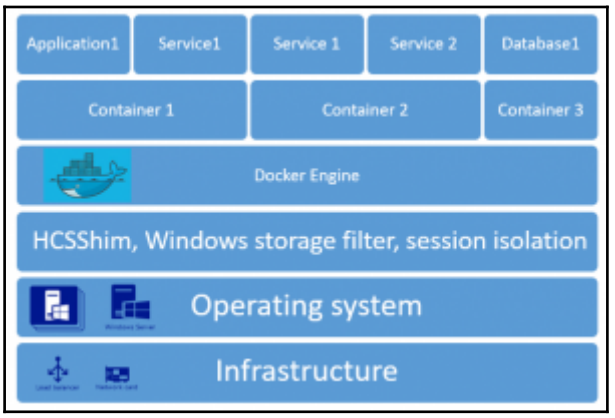
```
PS C:\> Invoke-Pester -Script "C:\Addition\Add-Numbers.Tests.ps1"
Describing test cases adding two numbers
  [+] checking when both the number are positive 405ms
  [+] checking when One number is positive and another negative 99ms
Tests completed in 504ms
Passed: 2 Failed: 0 Skipped: 0 Pending: 0

PS C:\> Invoke-Pester -Script "C:\test-WebServer.ps1"
Describing Status of web server

Name                    State        Applications
----                    -----        ------------
TestAppPool             Started

Name         : TestWebSite
ID           : 3
State        : Started
PhysicalPath : C:\InetPub\Wwwroot
Bindings     : Microsoft.IIs.PowerShell.Framework.ConfigurationElement

   Context is Website already exists with valid values
     [+] checking whether the website exists 557ms
     [+] checking if website is in running condition 15ms
Tests completed in 573ms
Passed: 2 Failed: 0 Skipped: 0 Pending: 0


PS C:\>
```

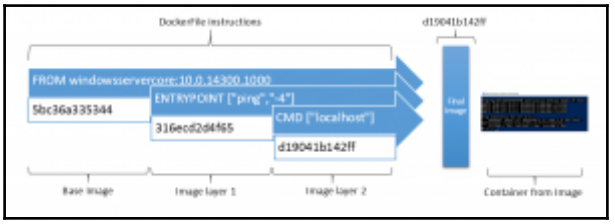


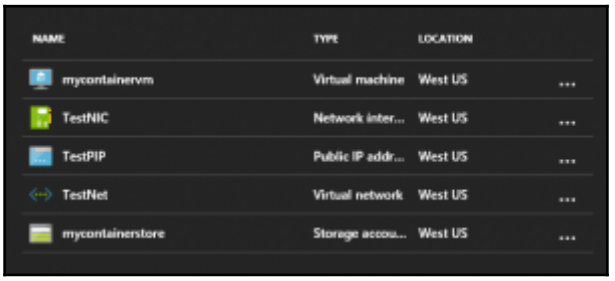



Admin DSC Authoring Server
DSC Admin Pull Server
Target Nodes LCM
1
2
3
4
5
6

Chapter 4: Nano, Containers, and Docker Primer

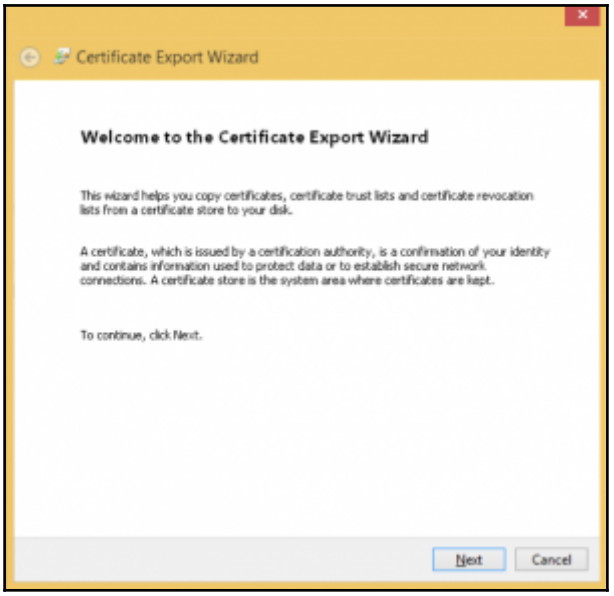


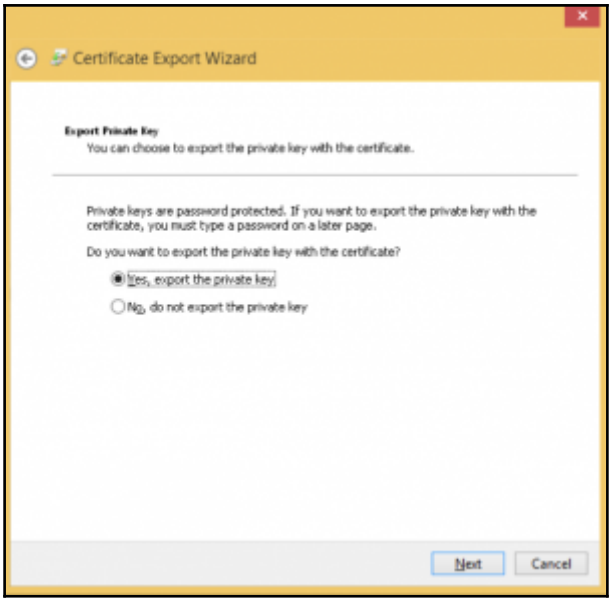


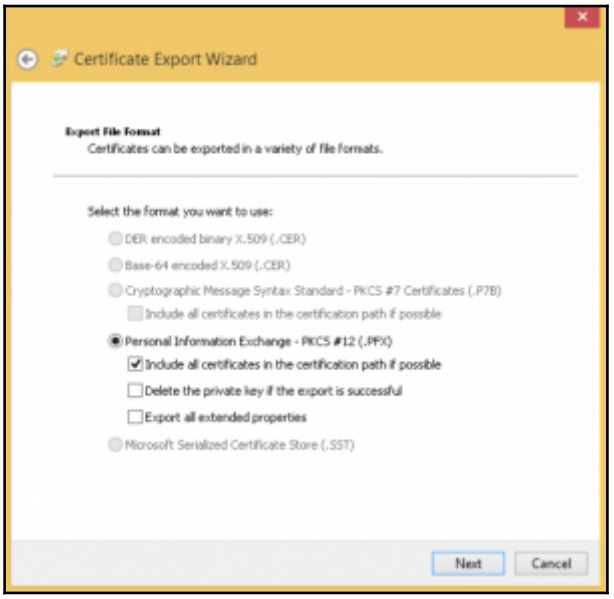


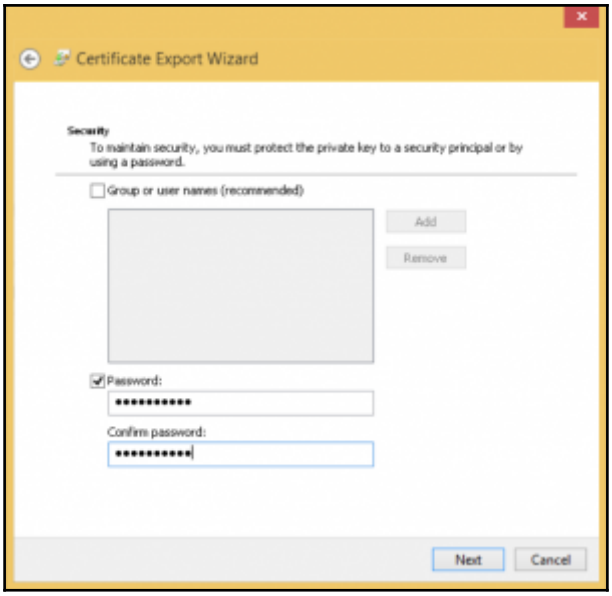
PS C:\> docker search microsoft
NAME DESCRIPTION STARS OFFICIAL AUTOMATED
microsoft/sample-django:windowsservercore Django installed in a Windows Server core ... 1 [OK]
microsoft/dotnet3:windowsservercore .NET 3.5 Runtime installed in a Windows Se... 1 [OK] [OK]
microsoft/sample-golang:windowsservercore Go Programming Language installed in a Win... 1 [OK]
microsoft/sample-httpd:windowsservercore Apache httpd installed in a Windows Server... 1 [OK] [OK]
microsoft/iis:windowsservercore Internet Information Services (IIS) instal... 1 [OK] [OK]
microsoft/sample-mongodb:windowsservercore MongoDB installed in a Windows Server Core... 1 [OK]
microsoft/sample-mysql:windowsservercore MySQL installed in a Windows Server Core b... 1 [OK]
microsoft/sample-nginx:windowsservercore Nginx installed in a Windows Server Core b... 1 [OK]
microsoft/sample-python:windowsservercore Python installed in a Windows Server Core ... 1 [OK]
microsoft/sample-rails:windowsservercore Ruby on Rails installed in a Windows Serve... 1 [OK]
microsoft/sample-redis:windowsservercore Redis installed in a Windows Server Core b... 1 [OK]
microsoft/sample-ruby:windowsservercore Ruby installed in a Windows Server Core ba... 1 [OK]
microsoft/sample-sqlite:windowsservercore SQLite installed in a Windows Server Core ... 1 [OK]
microsoft/sample-golang:nanoserver Go Programming Language installed in a Nan... 1 [OK]
microsoft/sample-httpd:nanoserver Apache httpd installed in a Nano Server ba... 1 [OK]
microsoft/sample-mysql:nanoserver MySQL installed in a Nano Server based com... 1 [OK]
microsoft/sample-nginx:nanoserver Nginx installed in a Nano Server based com... 1 [OK]
microsoft/sample-node:nanoserver Node installed in a Nano Server based cont... 1 [OK]
microsoft/sample-python:nanoserver Python installed in a Nano Server based ca... 1 [OK]
microsoft/sample-rails:nanoserver Ruby on Rails installed in a Nano Server b... 1 [OK]
microsoft/sample-redis:nanoserver Redis installed in a Nano Server based com... 1 [OK]
microsoft/sample-ruby:nanoserver Ruby installed in a Nano Server based cont... 1 [OK]

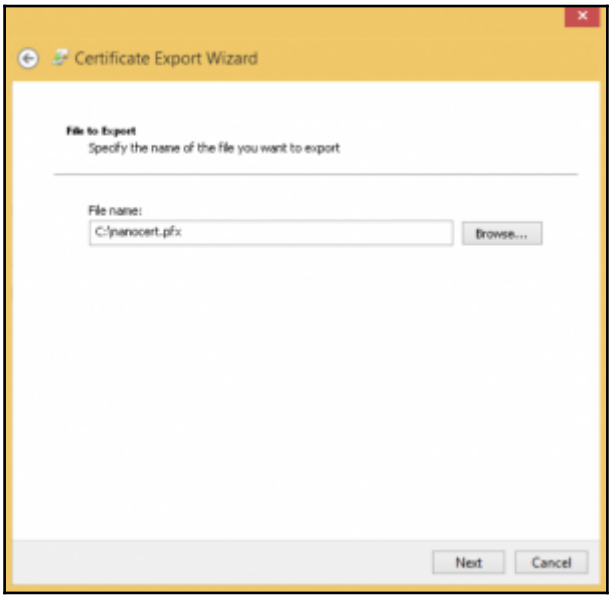
Console1 - [Console Root\Certificates (Local Computer)\Personal\Certificates]
File Action View Favorites Window Help
Console Root
Certificates - Current User
Certificates (Local Computer)
Issued To
Issued By
Expiration Date
Intended Purposes
Friendly Na
*.westeurope.cloudapp.azure.c...
*.westeurope.cloudapp.azure.com
3/5/2018
Client Authenticati...
<None>


Certificate Export Wizard
Welcome to the Certificate Export Wizard
This wizard helps you copy certificates, certificate trust lists and certificate revocation lists from a certificate store to your disk.
A certificate, which is issued by a certification authority, is a confirmation of your identity and contains information used to protect data or to establish secure network connections. A certificate store is the system area where certificates are kept.
To continue, click Next.
Next
Cancel

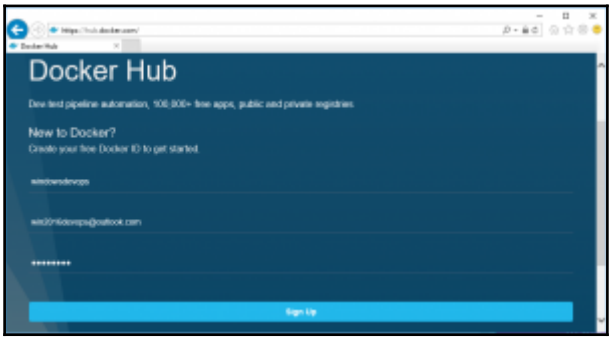

Certificate Export Wizard
Export Private Key
You can choose to export the private key with the certificate.
Private keys are password protected. If you want to export the private key with the certificate, you must type a password on a later page.
Do you want to export the private key with the certificate?
Yes, export the private key
No, do not export the private key
Next
Cancel

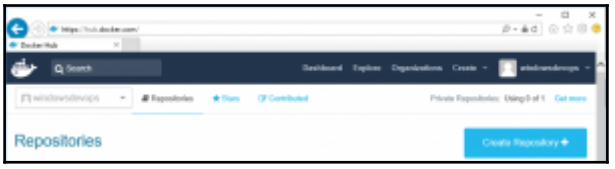

Certificate Export Wizard
Export File Format
Certificates can be exported in a variety of file formats.
Select the format you want to use:
DER encoded binary X.509 (.CER)
Base-64 encoded X.509 (.CER)
Cryptographic Message Syntax Standard - PKCS #7 Certificates (.P7B)
Include all certificates in the certification path if possible
Personal Information Exchange - PKCS #12 (.PFX)
Include all certificates in the certification path if possible
Delete the private key if the export is successful
Export all extended properties
Microsoft Serialized Certificate Store (.SST)
Next
Cancel

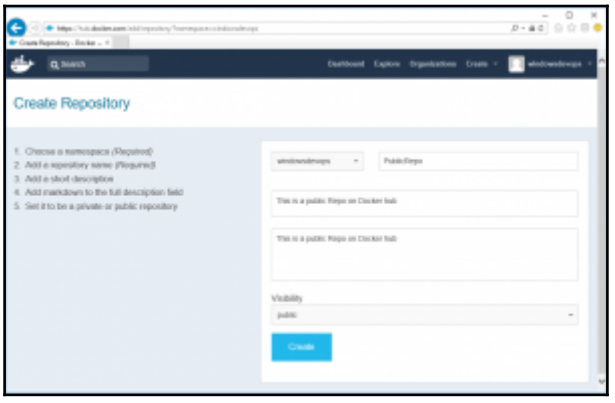

Certificate Export Wizard
Security
To maintain security, you must protect the private key to a security principal or by using a password.
Group or user names (recommended)
Add
Remove
Password:
Confirm password:
Next
Cancel


Certificate Export Wizard
File to Export
Specify the name of the file you want to export
File name:
C:\nanocert.pfx
Browse...
Next
Cancel

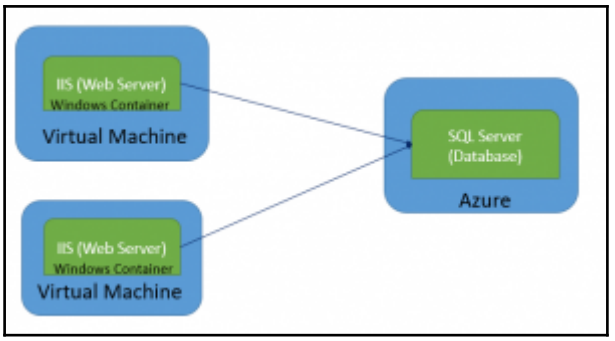
azuredeploy.json*
Schema: https://schema.management.azure.com/schemas/2015-01-01/deploymentTemplate.json#
{
"$schema": "https://schema.management.azure.com/schemas/2015-01-01/deploymentTemplate.json#",
"contentVersion": "1.0.0.0",
"parameters": {
},
"variables": {
},
"resources": [
],
"outputs": {
}
}


Docker Hub
Dev test pipeline automation, 100,000+ free apps, public and private registries
New to Docker?
Create your free Docker ID to get started.
windowsdevops
win10rkdevops@outlook.com
••••••••
Sign Up


Search
Dashboard
Explore
Organizations
Create
windowsdevops
Repositories
Create Repository


Search
Dashboard
Explore
Organizations
Create
windowsdevops
Create Repository
1. Choose a namespace (Required)
2. Add a repository name (Required)
3. Add a short description
4. Add markdown to the full description field
5. Set it to be a private or public repository
Public Repo
Visibility
public
Create

Chapter 5: Building a Sample Application

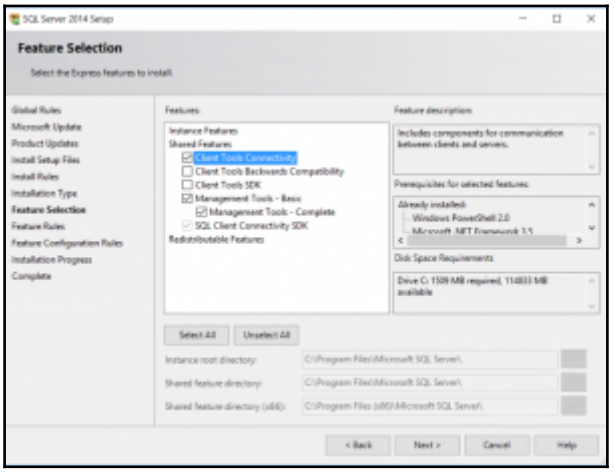

IIS (Web Server)
Windows Container
Virtual Machine
IIS (Web Server)
Windows Container
Virtual Machine
SQL Server
(Database)
Azure

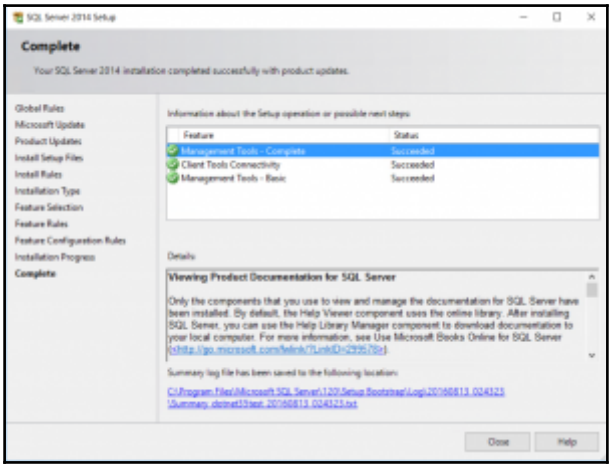
Choose the download you want

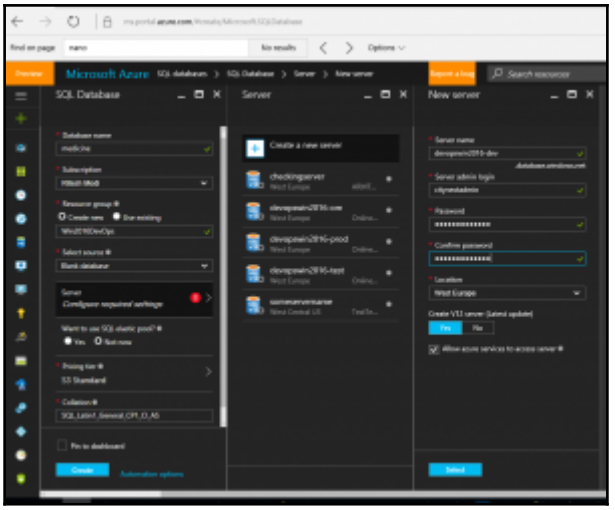
This PC
DVD Drive (F:) SSS_X64FRE_EN-US_DV9
sources
sxs
Name
Date modified
Type
Size
microsoft-windows-netfx3-ondemand-package.cab
3/25/2016 6:22 PM
CAB File
70,641 KB

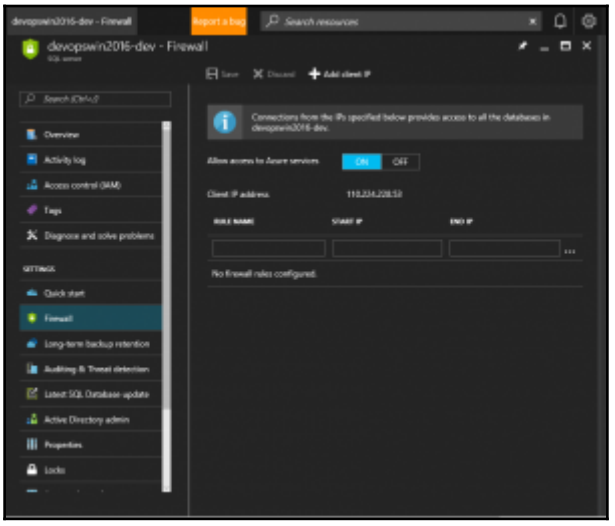
Confirm installation selections

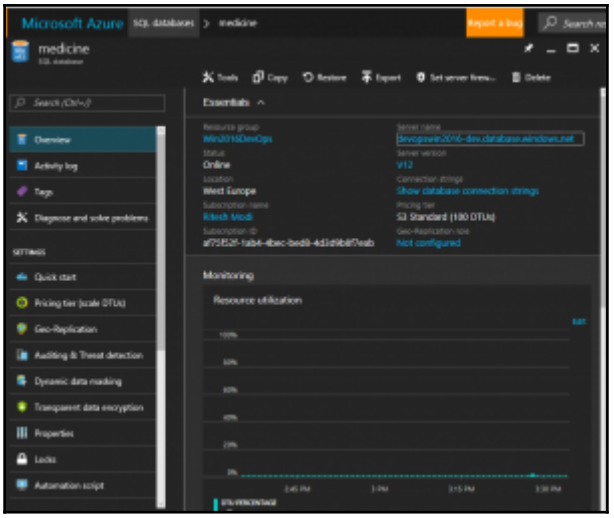
SQL Server Installation Center
Planning
Installation
Maintenance
Tools
Resources
Options
New SQL Server stand-alone installation or add features to an existing installation
Launch a wizard to install SQL Server 2014 in a non-clustered environment or to add features to an existing SQL Server 2014 instance.
Upgrade from SQL Server 2005, SQL Server 2008, SQL Server 2008 R2 or SQL Server 2012
Launch a wizard to upgrade SQL Server 2005, SQL Server 2008, SQL Server 2008 R2 or SQL Server 2012 to SQL Server 2014.
Microsoft SQL Server 2014

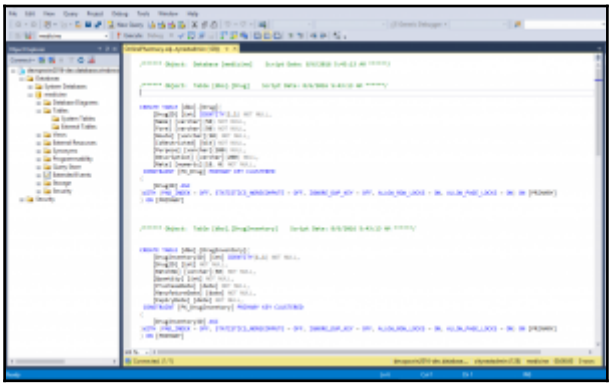

SQL Server 2014 Setup
Feature Selection
Select the Express features to install.
Global Rules
Microsoft Update
Product Updates
Install Setup Files
Install Rules
Installation Type
Feature Selection
Feature Rules
Feature Configuration Rules
Installation Progress
Complete
Features:
Instance Features
Shared Features
Client Tools Connectivity
Client Tools Backwards Compatibility
Client Tools SDK
Management Tools - Basic
Management Tools - Complete
SQL Client Connectivity SDK
Redistributable Features
Feature description:
Includes components for communication between clients and servers.
Prerequisites for selected features:
Already installed:
Windows PowerShell 2.0
Disk Space Requirements:
Drive C: 1509 MB required, 114833 MB available
Select All
Unselect All
Instance root directory:
C:\Program Files\Microsoft SQL Server\
Shared feature directory:
C:\Program Files\Microsoft SQL Server\
Shared feature directory (x86):
C:\Program Files (x86)\Microsoft SQL Server\
< Back
Next >
Cancel
Help

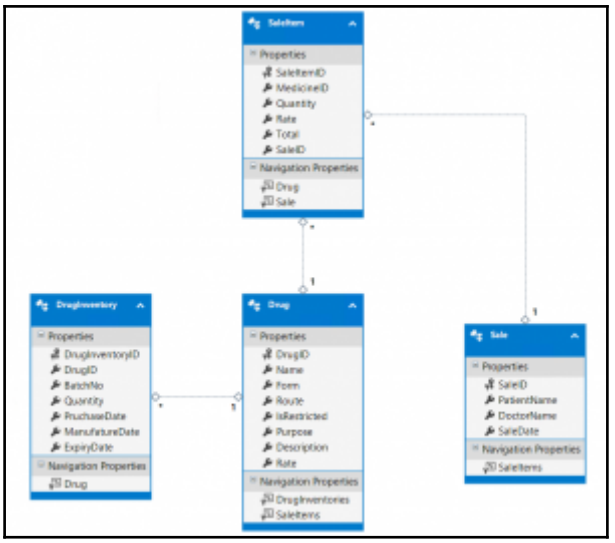

SQL Server 2014 Setup
Complete
Your SQL Server 2014 installation completed successfully with product updates.
Global Rules
Microsoft Update
Product Updates
Install Setup Files
Install Rules
Installation Type
Feature Selection
Feature Rules
Feature Configuration Rules
Installation Progress
Complete
Information about the Setup operation or possible next steps:
Feature
Status
Management Tools - Complete
Succeeded
Client Tools Connectivity
Succeeded
Management Tools - Basic
Succeeded
Details:
Viewing Product Documentation for SQL Server
Only the components that you use to view and manage the documentation for SQL Server have been installed. By default, the Help Viewer component uses the online library. After installing SQL Server, you can use the Help Library Manager component to download documentation to your local computer. For more information, see Use Microsoft Books Online for SQL Server (
Summary log file has been saved to the following location:
Close
Help

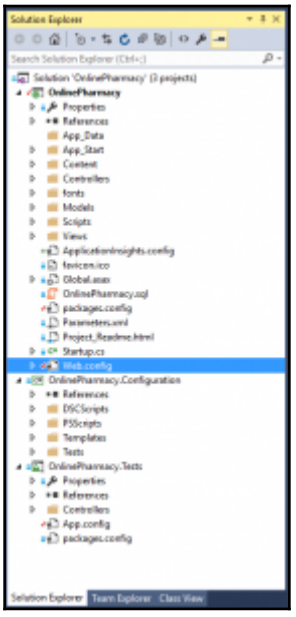

Microsoft Azure
SQL Database
Server
New server
Create a new server

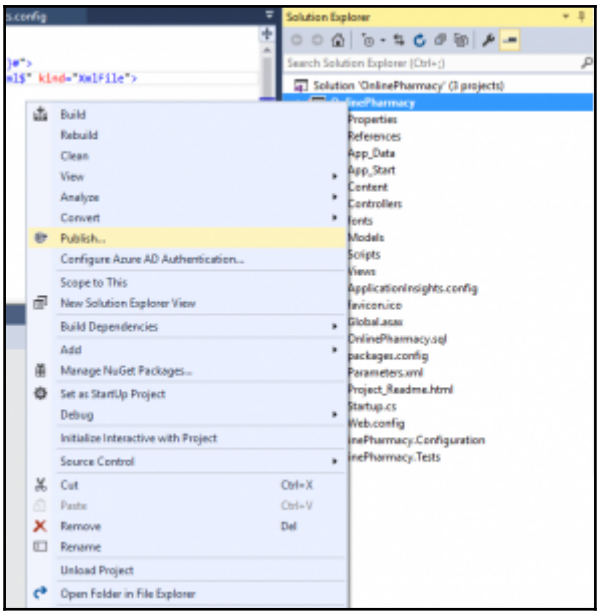

devopswin2016-dev - Firewall
Report a bug
Search resources
Save
Discard
Add client IP
Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
SETTINGS
Quick start
Firewall
Long-term backup retention
Auditing & Threat detection
Latest SQL Database update
Active Directory admin
Properties
Locks
Allow access to Azure services
ON
OFF
Client IP address
RULE NAME
START IP
END IP
No firewall rules configured.

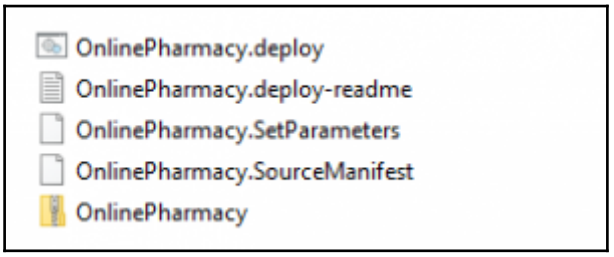

Microsoft Azure
SQL databases
medicine
Report a bug
Search resources, services, and docs
medicine
SQL database
Tools
Copy
Restore
Export
Set server firew...
Delete
Search (Ctrl+/)
Overview
Activity log
Tags
Diagnose and solve problems
SETTINGS
Quick start
Pricing tier (scale DTUs)
Geo-Replication
Auditing & Threat detection
Dynamic data masking
Transparent data encryption
Properties
Locks
Automation script
Essentials
Resource group
Win2016DevOps
Status
Online
Location
West Europe
Subscription name
Ritesh Modi
Subscription ID
af75852f-1ab4-4bec-bed8-4d1d9b8f7eab
Server name
devopswin2016-dev.database.windows.net
Server version
V12
Connection strings
Show database connection strings
Pricing tier
S3 Standard (100 DTUs)
Geo-Replication role
Not configured
Monitoring
Resource utilization
Edit
100%
80%
60%
40%
20%
0%
2:45 PM
3 PM
3:15 PM
3:30 PM
DTU PERCENTAGE

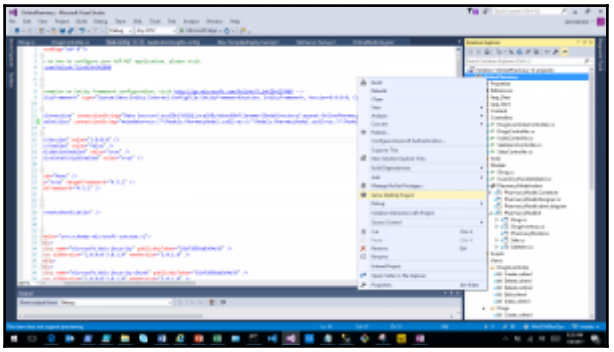


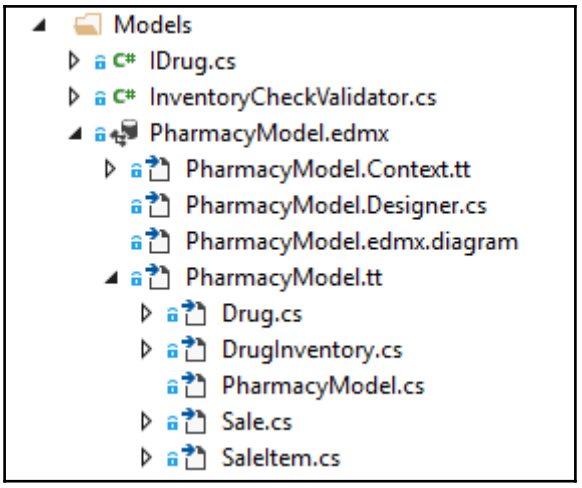

SaleItem
Properties
SaleItemID
MedicineID
Quantity
Rate
Total
SaleID
Navigation Properties
Drug
Sale
DrugInventory
Properties
DrugInventoryID
DrugID
BatchNo
Quantity
PruchaseDate
ManufatureDate
ExpiryDate
Navigation Properties
Drug
Drug
Properties
DrugID
Name
Form
Route
IsRestricted
Purpose
Description
Rate
Navigation Properties
DrugInventories
SaleItems
Sale
Properties
SaleID
PatientName
DoctorName
SaleDate
Navigation Properties
SaleItems

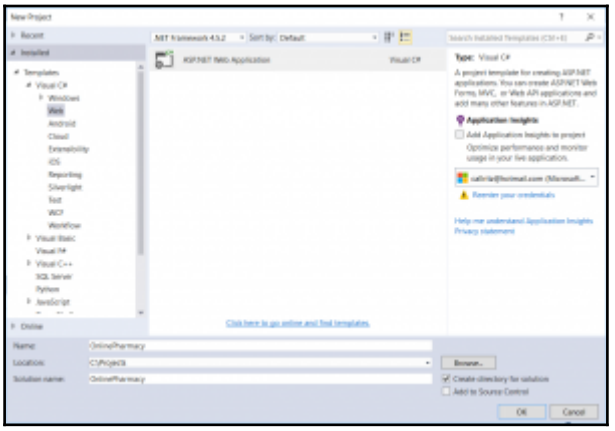

Solution Explorer
Search Solution Explorer (Ctrl+;)
Solution 'OnlinePharmacy' (3 projects)
OnlinePharmacy
Properties
References
App_Data
App_Start
Content
Controllers
fonts
Models
Scripts
Views
ApplicationInsights.config
favicon.ico
Global.asax
OnlinePharmacy.sql
packages.config
Parameters.xml
Project_Readme.html
Startup.cs
Web.config
OnlinePharmacy.Configuration
References
DSCScripts
PSScripts
Templates
Tests
OnlinePharmacy.Tests
Properties
References
Controllers
App.config
packages.config
Solution Explorer
Team Explorer
Class View

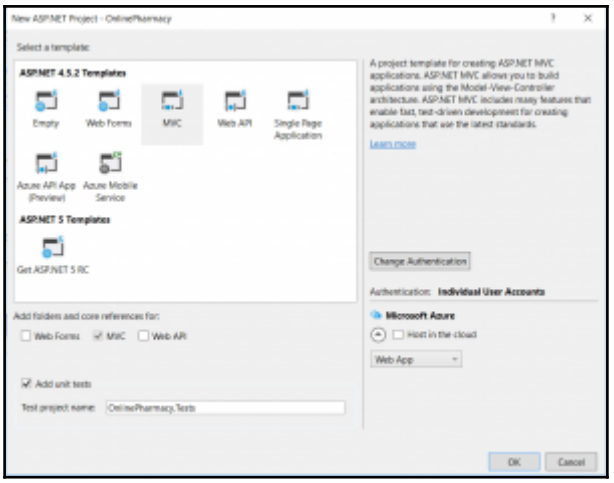

Solution Explorer
Search Solution Explorer (Ctrl+;)
Solution 'OnlinePharmacy' (3 projects)
Properties
References
App_Data
App_Start
Content
Controllers
fonts
Models
Scripts
Views
ApplicationInsights.config
favicon.ico
Global.asax
OnlinePharmacy.sql
packages.config
Parameters.xml
Project_Readme.html
Startup.cs
Web.config
Build
Rebuild
Clean
View
Analyze
Convert
Publish...
Configure Azure AD Authentication...
Scope to This
New Solution Explorer View
Build Dependencies
Add
Manage NuGet Packages...
Set as StartUp Project
Debug
Initialize Interactive with Project
Source Control
Cut Ctrl+X
Paste Ctrl+V
Remove Del
Rename
Unload Project
Open Folder in File Explorer

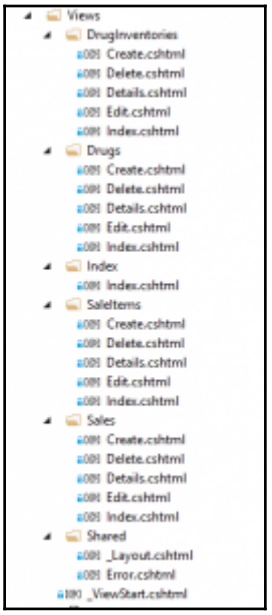

OnlinePharmacy.deploy
OnlinePharmacy.deploy-readme
OnlinePharmacy.SetParameters
OnlinePharmacy.SourceManifest
OnlinePharmacy

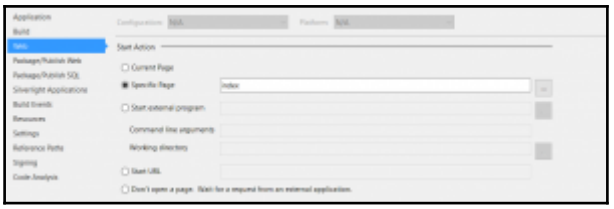


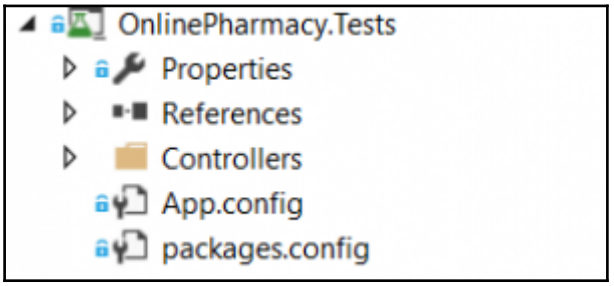

Models
IDrug.cs
InventoryCheckValidator.cs
PharmacyModel.edmx
PharmacyModel.Context.tt
PharmacyModel.Designer.cs
PharmacyModel.edmx.diagram
PharmacyModel.tt
Drug.cs
DrugInventory.cs
PharmacyModel.cs
Sale.cs
SaleItem.cs

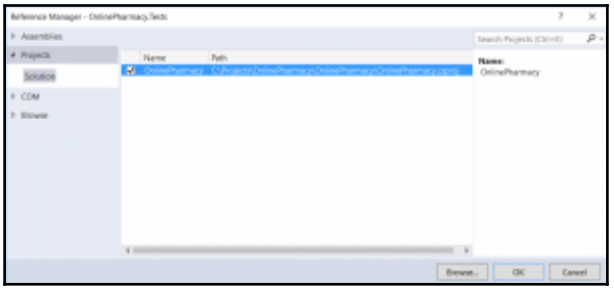


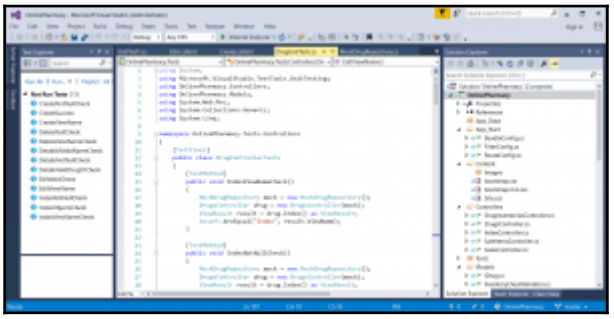

New ASP.NET Project - OnlinePharmacy
Select a template:
ASP.NET 4.5.2 Templates
Empty
Web Forms
MVC
Web API
Single Page Application
Azure API App (Preview)
Azure Mobile Service
ASP.NET 5 Templates
Get ASP.NET 5 RC
A project template for creating ASP.NET MVC applications. ASP.NET MVC allows you to build applications using the Model-View-Controller architecture. ASP.NET MVC includes many features that enable fast, test-driven development for creating applications that use the latest standards.
Learn more
Change Authentication
Authentication: Individual User Accounts
Microsoft Azure
Host in the cloud
Web App
Add folders and core references for:
Web Forms
MVC
Web API
Add unit tests
Test project name: OnlinePharmacy.Tests
OK
Cancel


Views
DrugInventories
Create.cshtml
Delete.cshtml
Details.cshtml
Edit.cshtml
Index.cshtml
Drugs
Create.cshtml
Delete.cshtml
Details.cshtml
Edit.cshtml
Index.cshtml
Index
Index.cshtml
SaleItems
Create.cshtml
Delete.cshtml
Details.cshtml
Edit.cshtml
Index.cshtml
Sales
Create.cshtml
Delete.cshtml
Details.cshtml
Edit.cshtml
Index.cshtml
Shared
_Layout.cshtml
Error.cshtml
_ViewStart.cshtml

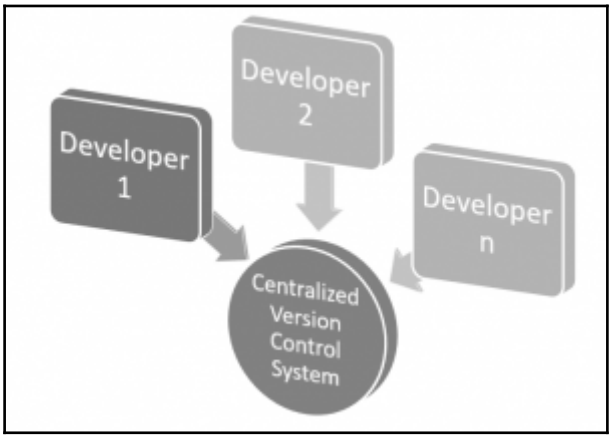


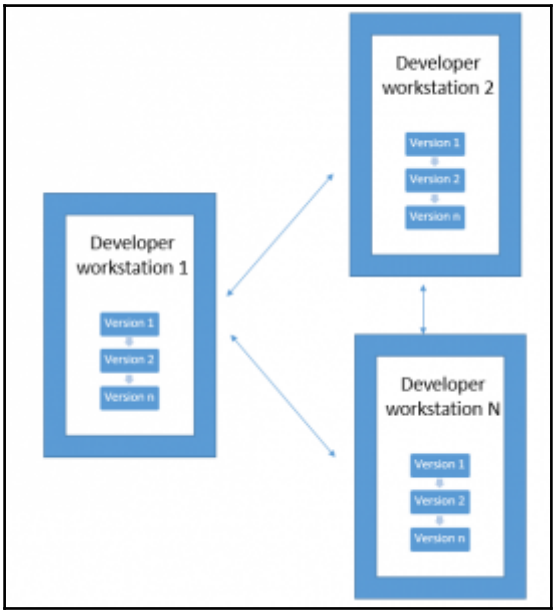

OnlinePharmacy.Tests
Properties
References
Controllers
App.config
packages.config

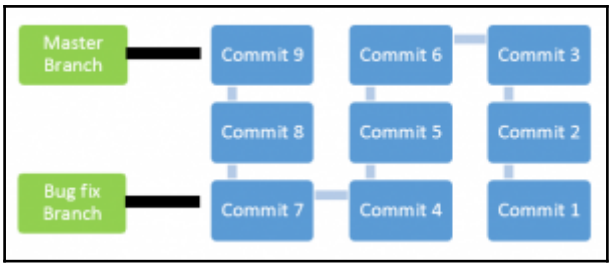

Reference Manager - OnlinePharmacy.Tests
Assemblies
Projects
Solution
COM
Browse...
OK
Cancel

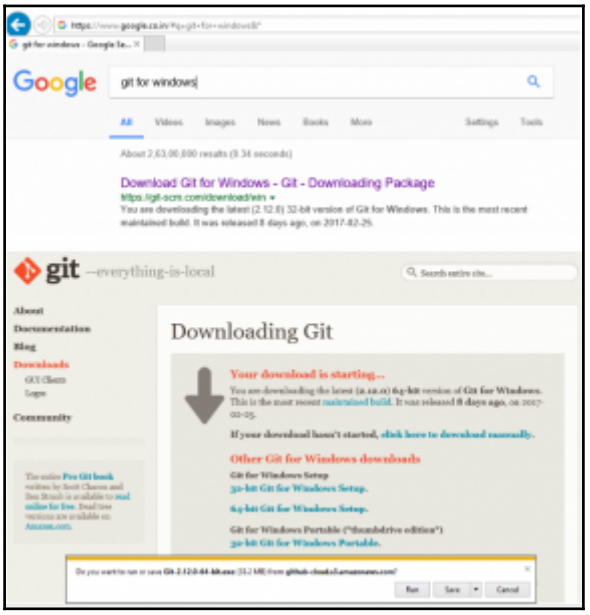


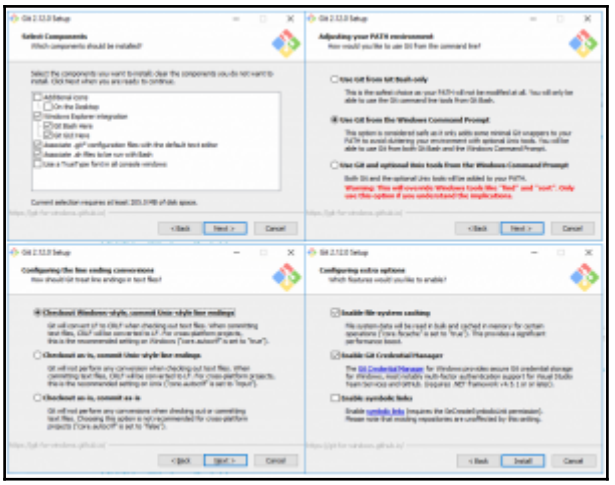
Chapter 6: Source Code Control

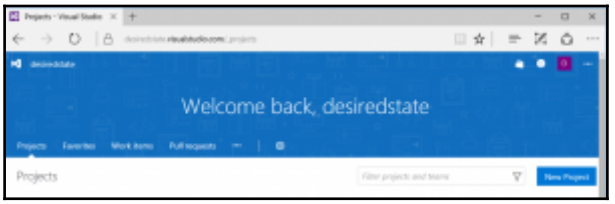


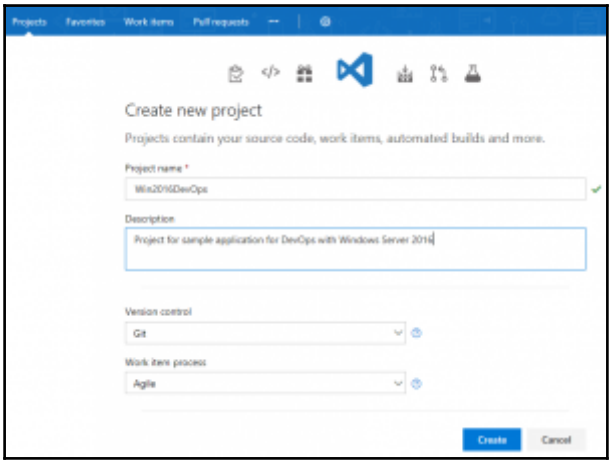



Master Branch
Bug fix Branch
Commit 9
Commit 8
Commit 7
Commit 6
Commit 5
Commit 4
Commit 3
Commit 2
Commit 1

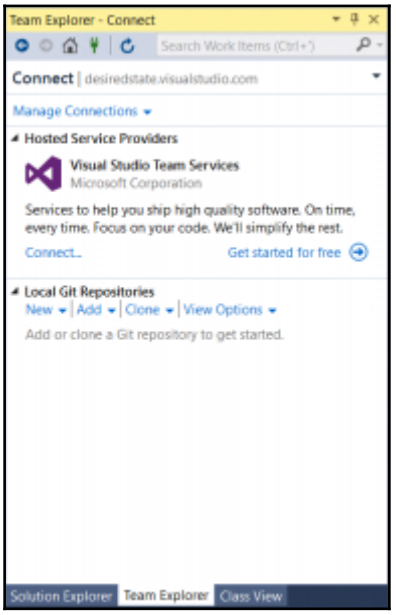

Google
git for windows
Download Git for Windows - Git - Downloading Package
git --everything-is-local
Downloading Git
Your download is starting...
Other Git for Windows downloads

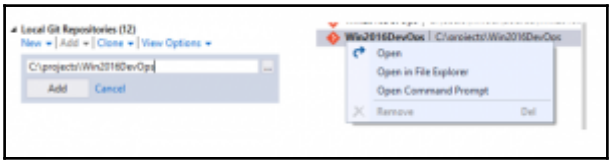


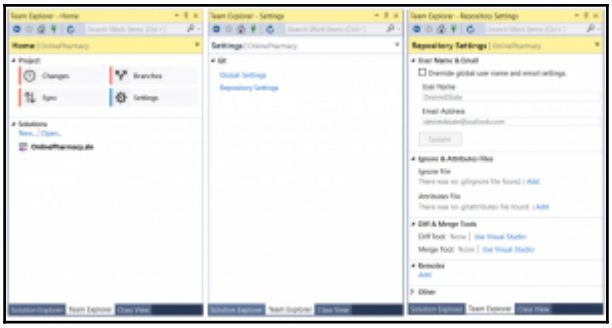

Welcome back, desiredstate
Projects

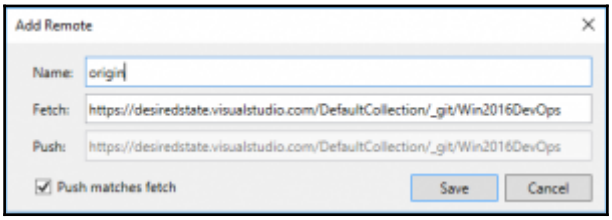

Projects
Favorites
Work items
Pull requests
Create new project
Projects contain your source code, work items, automated builds and more.
Project name *
Win2016DevOps
Description
Project for sample application for DevOps with Windows Server 2016
Version control
Git
Work item process
Agile
Create
Cancel

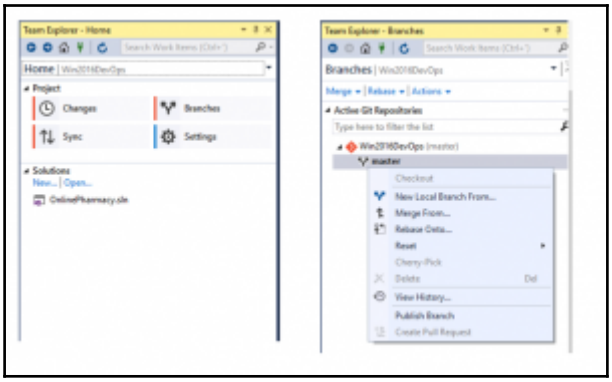
Win2016DevOps ☆
Briefly describe your project...
Get started with your new project!
Clone to your computer
OR
Clone in Visual Studio
Generate Git credentials

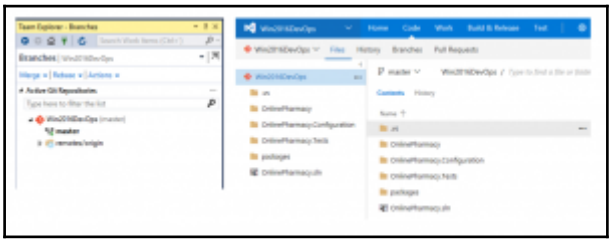

Team Explorer - Connect
Search Work Items (Ctrl+')
Connect | desiredstate.visualstudio.com
Manage Connections
Hosted Service Providers
Visual Studio Team Services
Microsoft Corporation
Services to help you ship high quality software. On time, every time. Focus on your code. We'll simplify the rest.
Connect...
Get started for free
Local Git Repositories
New | Add | Clone | View Options
Add or clone a Git repository to get started.
Solution Explorer
Team Explorer
Class View

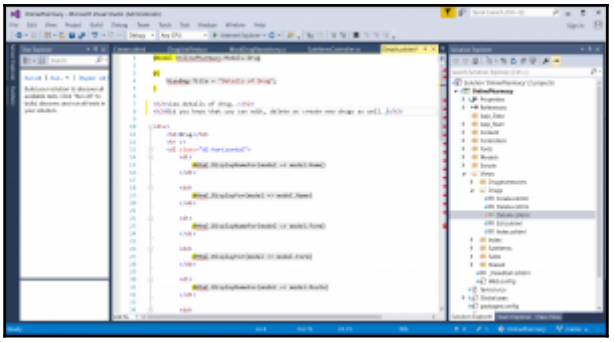

Local Git Repositories (12)
New | Add | Clone | View Options
C:\projects\Win2016DevOps
Add
Cancel
Win2016DevOps
Open
Open in File Explorer
Open Command Prompt
Remove
Del

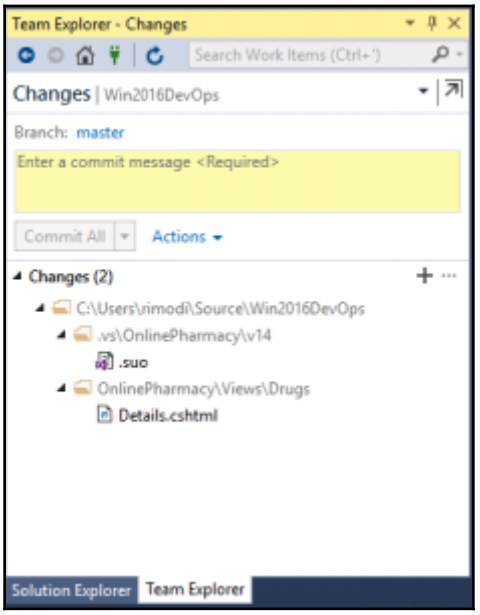


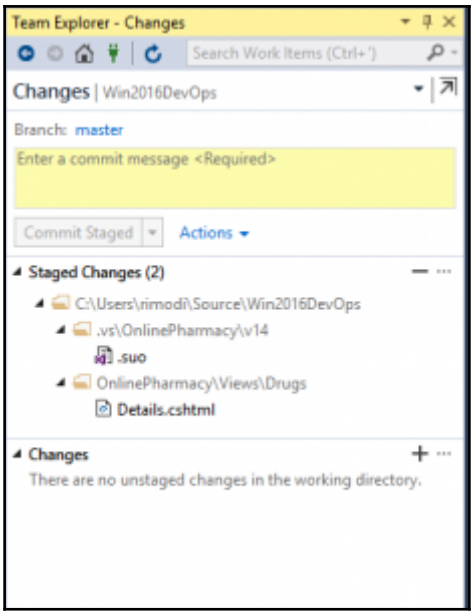

Add Remote
Name:
origin
Fetch:
https://desiredstate.visualstudio.com/DefaultCollection/_git/Win2016DevOps
Push:
https://desiredstate.visualstudio.com/DefaultCollection/_git/Win2016DevOps
Push matches fetch
Save
Cancel

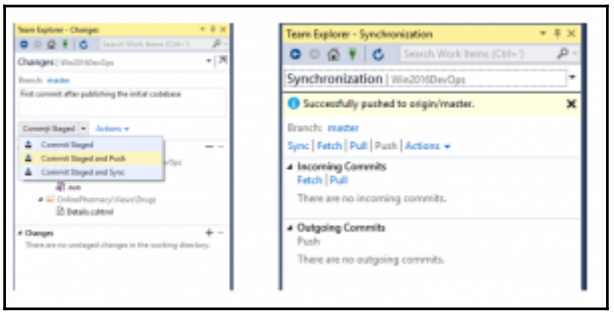


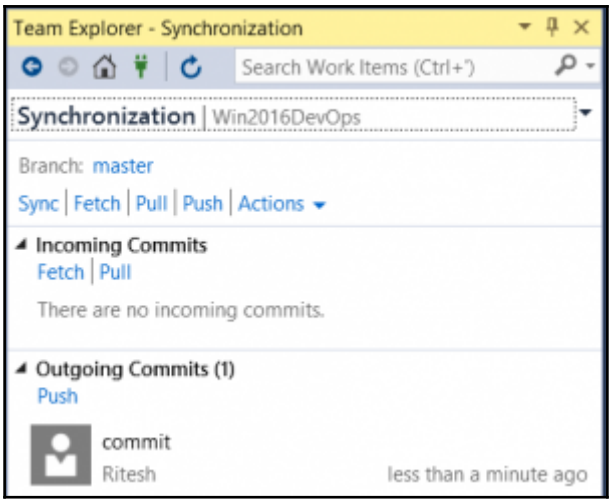


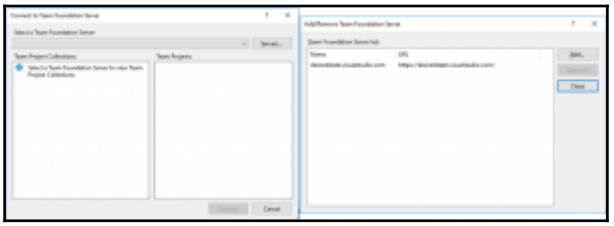


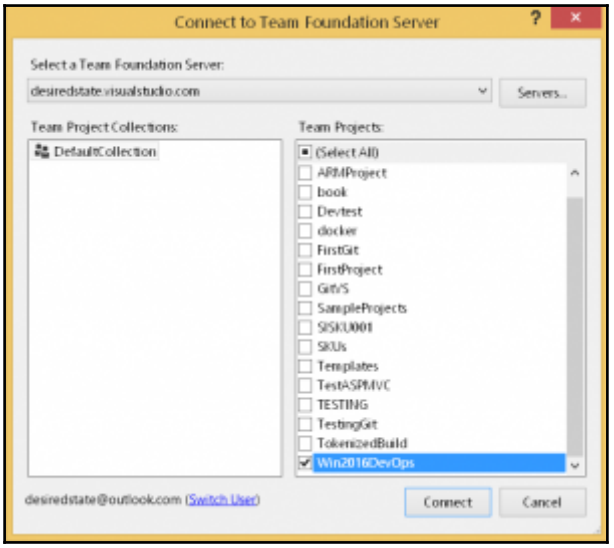

Team Explorer - Changes
Search Work Items (Ctrl+')
Changes | Win2016DevOps
Branch: master
Enter a commit message <Required>
Commit All
Actions
Changes (2)
C:\Users\rimodi\Source\Win2016DevOps
.vs\OnlinePharmacy\v14
.suo
OnlinePharmacy\Views\Drugs
Details.cshtml
Solution Explorer
Team Explorer

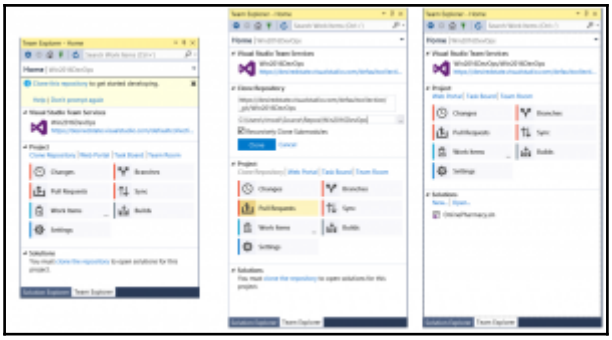

Team Explorer - Changes
Search Work Items (Ctrl+')
Changes | Win2016DevOps
Branch: master
Enter a commit message <Required>
Commit Staged
Actions
Staged Changes (2)
C:\Users\rimodi\Source\Win2016DevOps
.vs\OnlinePharmacy\v14
.suo
OnlinePharmacy\Views\Drugs
Details.cshtml
Changes
There are no unstaged changes in the working directory.

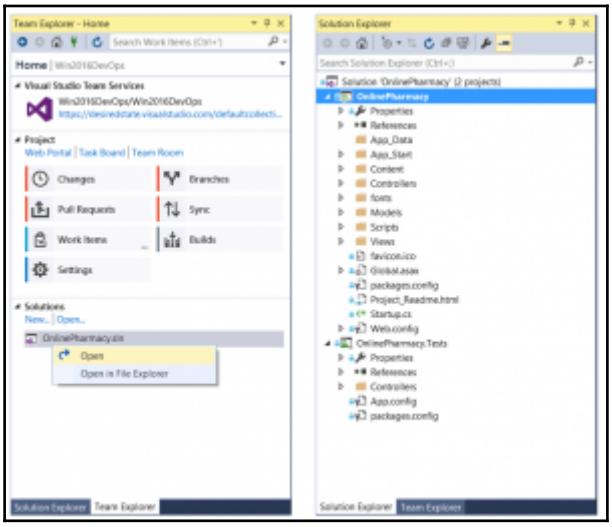

Team Explorer - Synchronization
Synchronization | Win2016DevOps
Succesfully pushed to origin/master.
Branch: master
Sync | Fetch | Pull | Push | Actions
Incoming Commits
Fetch | Pull
There are no incoming commits.
Outgoing Commits
Push
There are no outgoing commits.

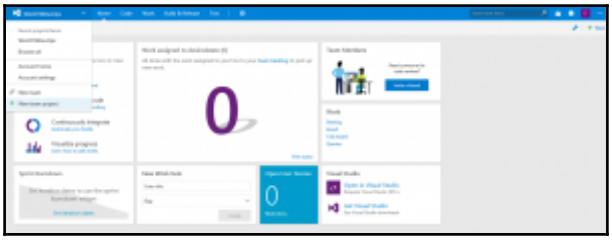

Team Explorer - Synchronization
Search Work Items (Ctrl+')
Synchronization | Win2016DevOps
Branch: master
Sync | Fetch | Pull | Push | Actions
Incoming Commits
Fetch | Pull
There are no incoming commits.
Outgoing Commits (1)
Push
commit
Ritesh
less than a minute ago

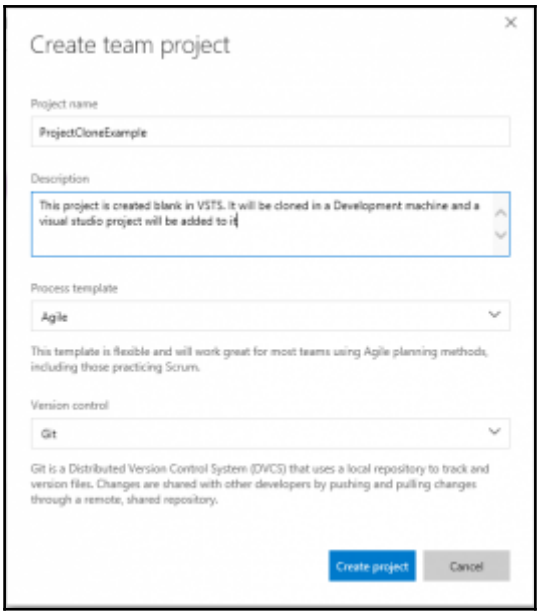


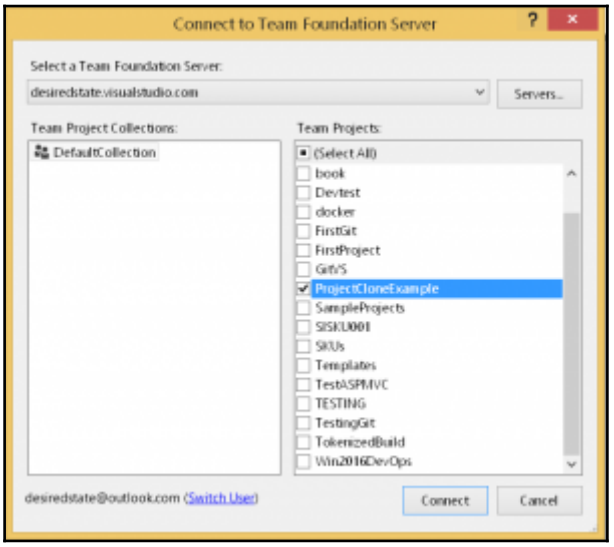

Connect to Team Foundation Server
Select a Team Foundation Server:
desiredstate.visualstudio.com
Servers...
Team Project Collections:
DefaultCollection
Team Projects:
(Select All)
ARMProject
book
Devtest
docker
FirstGit
FirstProject
GitVS
SampleProjects
SISKU001
SKUs
Templates
TestASPMVC
TESTING
TestingGit
TokenizedBuild
Win2016DevOps
desiredstate@outlook.com (Switch User)
Connect
Cancel

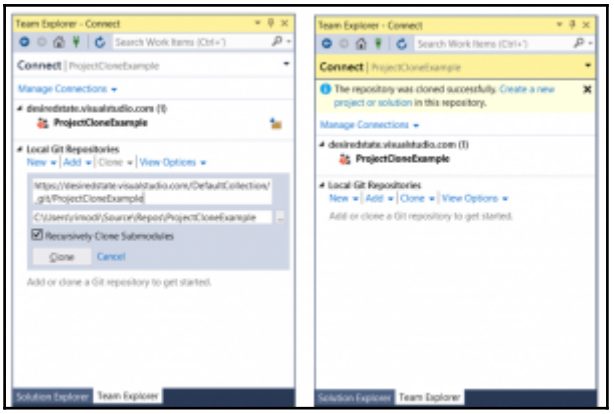


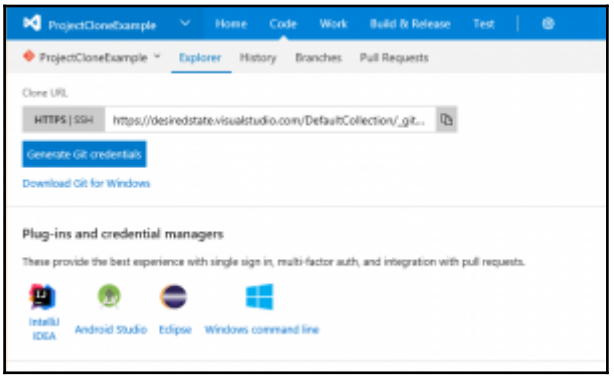

Team Explorer - Home
Search Work Items (Ctrl+')
Home | Win2016DevOps
Visual Studio Team Services
Win2016DevOps/Win2016DevOps
https://devinedstate-visualstudio.com/defaultcollecti...
Project
Web Portal | Task Board | Team Room
Changes
Branches
Pull Requests
Sync
Work Items
Builds
Settings
Solutions
New... | Open...
OnlinePharmacy.sln
Open
Open in File Explorer
Solution Explorer | Team Explorer
Solution Explorer
Search Solution Explorer (Ctrl+;)
Solution 'OnlinePharmacy' (2 projects)
OnlinePharmacy
Properties
References
App_Data
App_Start
Content
Controllers
fonts
Models
Scripts
Views
favicon.ico
Global.asax
packages.config
Project_Readme.html
Startup.cs
Web.config
OnlinePharmacy.Tests
Properties
References
Controllers
App.config
packages.config
Solution Explorer | Team Explorer

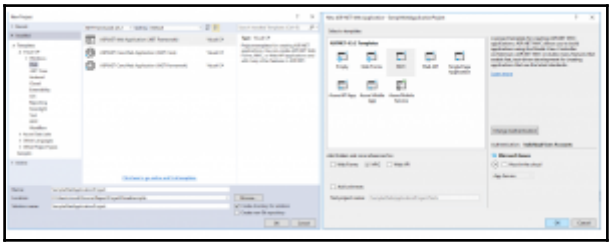

0
0

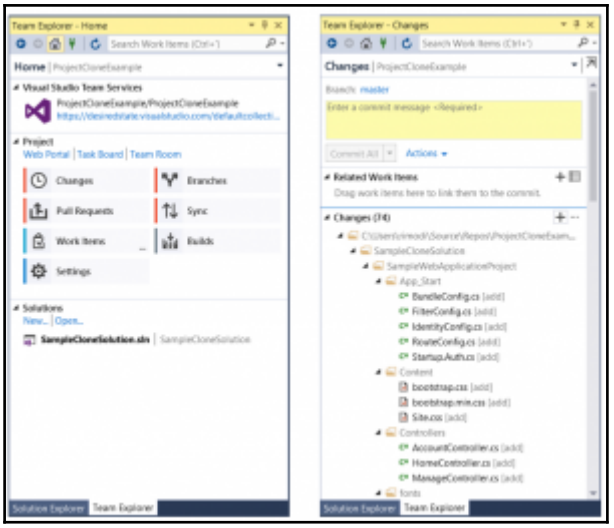

Create team project
Project name
ProjectCloneExample
Description
This project is created blank in VSTS. It will be cloned in a Development machine and a visual studio project will be added to it
Process template
Agile
This template is flexible and will work great for most teams using Agile planning methods, including those practicing Scrum.
Version control
Git
Git is a Distributed Version Control System (DVCS) that uses a local repository to track and version files. Changes are shared with other developers by pushing and pulling changes through a remote, shared repository.
Create project
Cancel

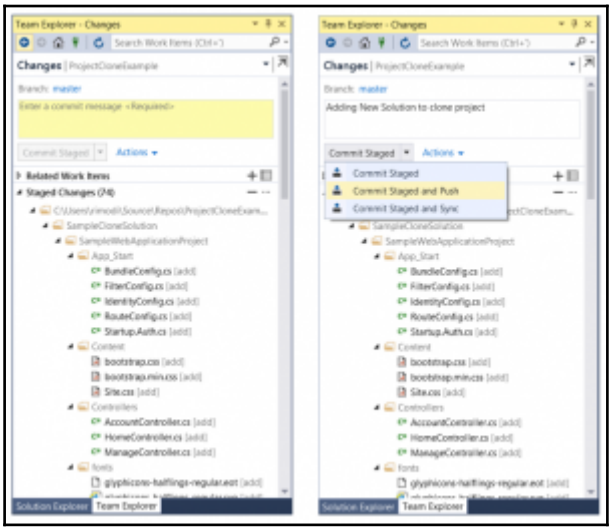

Connect to Team Foundation Server
Select a Team Foundation Server:
desiredstate.visualstudio.com
Servers...
Team Project Collections:
DefaultCollection
Team Projects:
(Select All)
book
Devtest
docker
FirstGit
FirstProject
GitVS
ProjectCloneExample
SampleProjects
SISKU001
SKUs
Templates
TestASPMVC
TESTING
TestingGit
TokenizedBuild
Win2016DevOps
desiredstate@outlook.com (Switch User)
Connect
Cancel

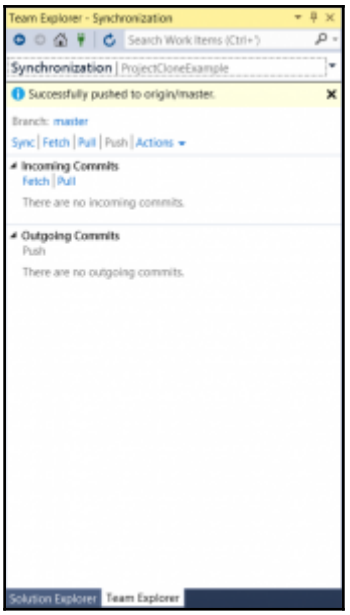

Team Explorer - Connect
Search Work Items (Ctrl+')
Connect | ProjectCloneExample
Manage Connections
desiredstate.visualstudio.com (1)
ProjectCloneExample
Local Git Repositories
New | Add | Clone | View Options
https://desiredstate.visualstudio.com/DefaultCollection/_git/ProjectCloneExample
C:\Users\vinodk\Source\Repos\ProjectCloneExample
Recursively Clone Submodules
Clone
Cancel
Add or clone a Git repository to get started.
Solution Explorer
Team Explorer
Team Explorer - Connect
Search Work Items (Ctrl+')
Connect | ProjectCloneExample
The repository was cloned successfully. Create a new project or solution in this repository.
Manage Connections
desiredstate.visualstudio.com (1)
ProjectCloneExample
Local Git Repositories
New | Add | Clone | View Options
Add or clone a Git repository to get started.
Solution Explorer
Team Explorer

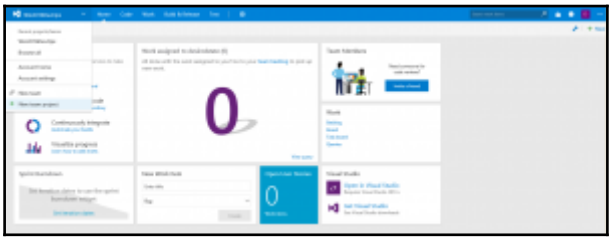

ProjectCloneExample
Home
Code
Work
Build & Release
Test
ProjectCloneExample
Explorer
History
Branches
Pull Requests
Clone URL
HTTPS | SSH
https://desiredstate.visualstudio.com/DefaultCollection/_git...
Generate Git credentials
Download Git for Windows
Plug-ins and credential managers
These provide the best experience with single sign in, multi-factor auth, and integration with pull requests.
IntelliJ IDEA
Android Studio
Eclipse
Windows command line

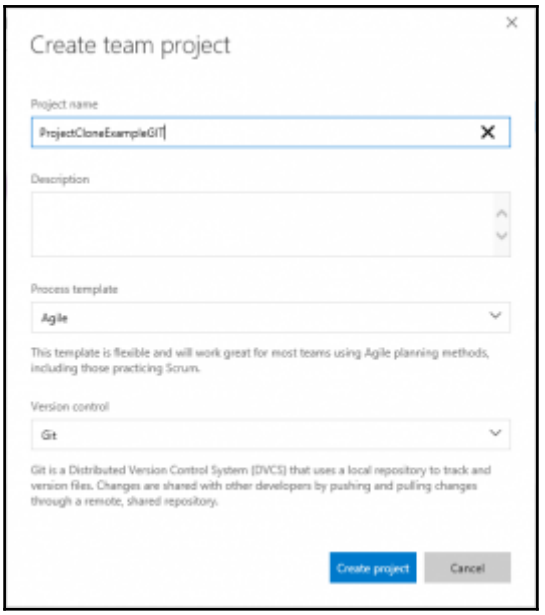


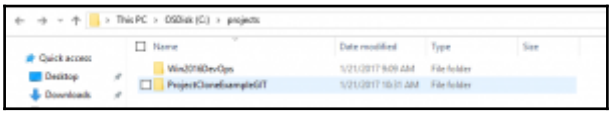

Team Explorer - Home
Home | ProjectCloneExample
Visual Studio Team Services
ProjectCloneExample/ProjectCloneExample
Project
Web Portal | Task Board | Team Room
Changes
Branches
Pull Requests
Sync
Work Items
Builds
Settings
Solutions
New... | Open...
SampleCloneSolution.sln | SampleCloneSolution
Solution Explorer | Team Explorer
Team Explorer - Changes
Changes | ProjectCloneExample
Branch: master
Enter a commit message <Required>
Commit All | Actions
Related Work Items
Drag work items here to link them to the commit.
Changes (74)
SampleCloneSolution
SampleWebApplicationProject
App_Start
BundleConfig.cs [add]
FilterConfig.cs [add]
IdentityConfig.cs [add]
RouteConfig.cs [add]
Startup.Auth.cs [add]
Content
bootstrap.css [add]
bootstrap.min.css [add]
Site.css [add]
Controllers
AccountController.cs [add]
HomeController.cs [add]
ManageController.cs [add]
fonts
Solution Explorer | Team Explorer

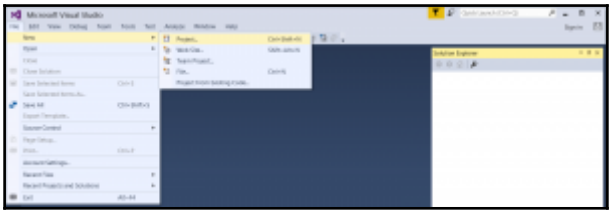

Team Explorer - Changes
Changes | ProjectCloneExample
Branch: master
Enter a commit message <Required>
Commit Staged | Actions
Related Work Items
Staged Changes (74)
SampleCloneSolution
SampleWebApplicationProject
App_Start
BundleConfig.cs [add]
FilterConfig.cs [add]
IdentityConfig.cs [add]
RouteConfig.cs [add]
Startup.Auth.cs [add]
Content
bootstrap.css [add]
bootstrap.min.css [add]
Site.css [add]
Controllers
AccountController.cs [add]
HomeController.cs [add]
ManageController.cs [add]
fonts
glyphicons-halflings-regular.eot [add]
Solution Explorer | Team Explorer
Team Explorer - Changes
Changes | ProjectCloneExample
Branch: master
Adding New Solution to clone project
Commit Staged | Actions
Commit Staged
Commit Staged and Push
Commit Staged and Sync
Solution Explorer | Team Explorer

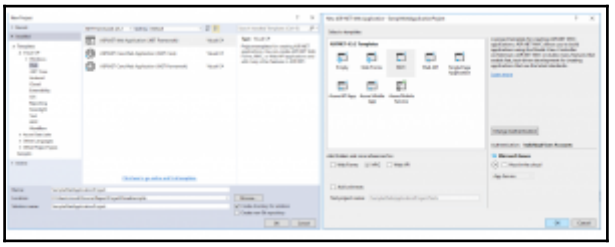

Team Explorer - Synchronization
Search Work Items (Ctrl+')
Synchronization | ProjectCloneExample
Successfully pushed to origin/master.
Branch: master
Sync | Fetch | Pull | Push | Actions
Incoming Commits
Fetch | Pull
There are no incoming commits.
Outgoing Commits
Push
There are no outgoing commits.
Solution Explorer
Team Explorer

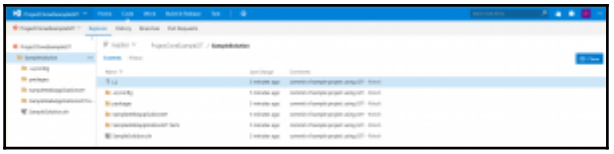



Create team project
Project name
ProjectCloneExampleGIT
Description
Process template
Agile
This template is flexible and will work great for most teams using Agile planning methods, including those practicing Scrum.
Version control
Git
Git is a Distributed Version Control System (DVCS) that uses a local repository to track and version files. Changes are shared with other developers by pushing and pulling changes through a remote, shared repository.
Create project
Cancel

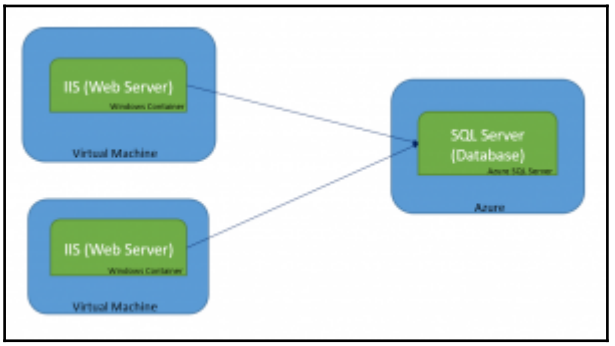

This PC
OSDisk (C:)
projects
Quick access
Desktop
Downloads
Name
Date modified
Type
Size
Win2016DevOps
ProjectCloneExampleGIT
File folder
File folder

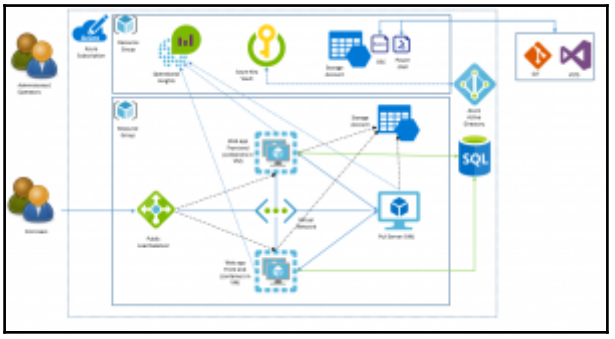




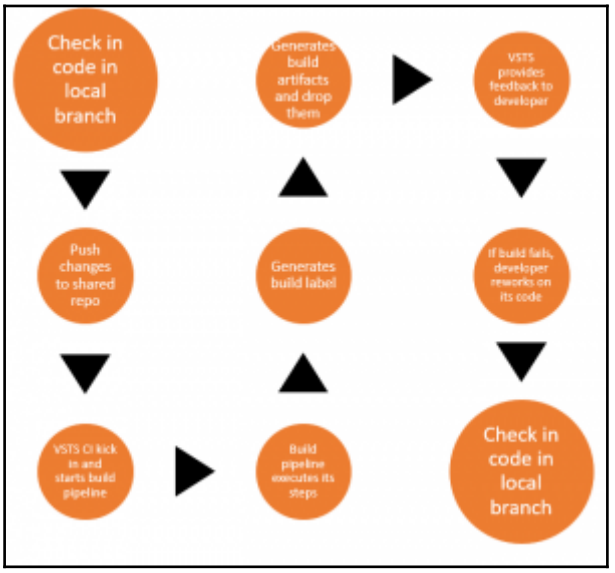


Chapter 7: Configuration Management

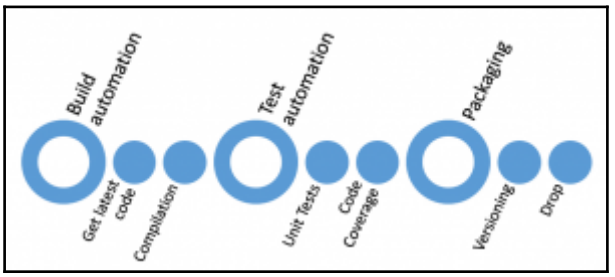




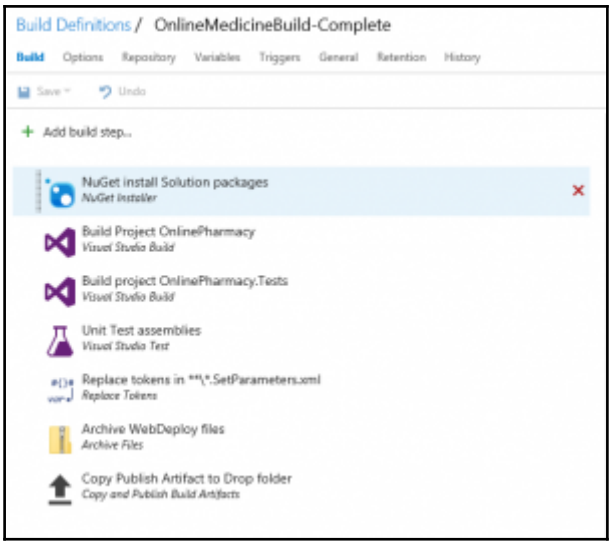
Chapter 9: Continuous Integration

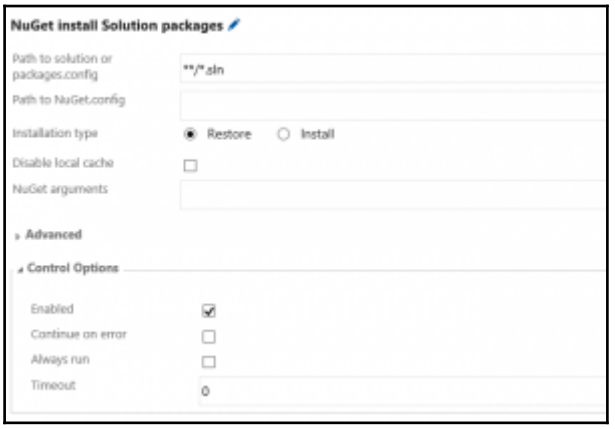


Create Work Item on Failure
Bug
Additional Fields
Add field

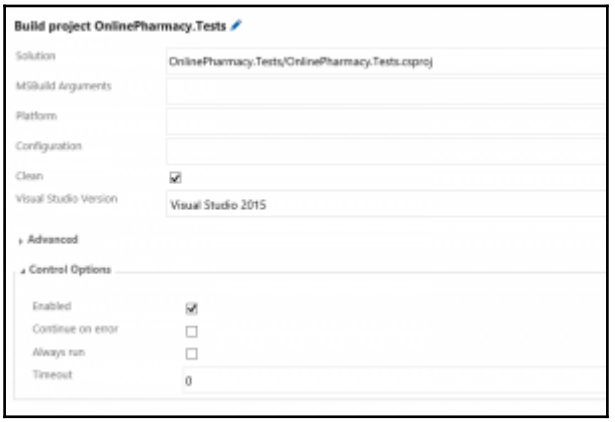

Build automation
Get latest code
Compilation
Test automation
Unit Tests
Code Coverage
Packaging
Versioning
Drop

Control Options
Enabled
Continue on error
Always run
Timeout
0


Build Definitions / OnlineMedicineBuild-Complete
Build
Options
Repository
Variables
Triggers
General
Retention
History
Save
Undo
Add build step...
NuGet install Solution packages
NuGet Installer
Build Project OnlinePharmacy
Visual Studio Build
Build project OnlinePharmacy.Tests
Visual Studio Build
Unit Test assemblies
Visual Studio Test
Replace tokens in ***.SetParameters.xml
Replace Tokens
Archive WebDeploy files
Archive Files
Copy Publish Artifact to Drop folder
Copy and Publish Build Artifacts


NuGet install Solution packages
Path to solution or packages.config
**/*.sln
Path to NuGet.config
Installation type
Restore
Install
Disable local cache
NuGet arguments
Advanced
Control Options
Enabled
Continue on error
Always run
Timeout
0

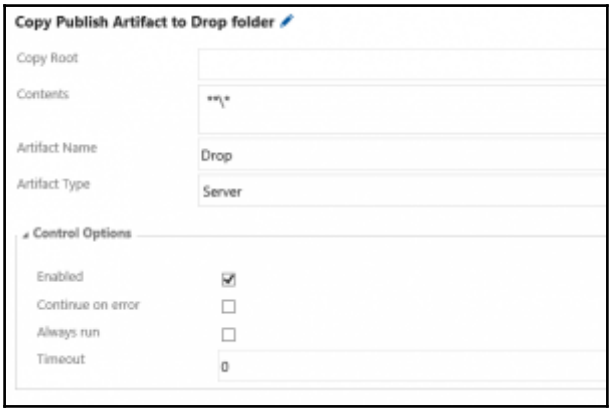
Build Project OnlinePharmacy
Solution
OnlinePharmacy/OnlinePharmacy.csproj
MSBuild Arguments
/t:Build;Package /p:DeployTarget=Package /p:PackageLocation="../Deployment" /p:PublishProfile=Release
Platform
Configuration
Clean
Visual Studio Version
Visual Studio 2015
Advanced
Control Options
Enabled
Continue on error
Always run
Timeout
0


Build project OnlinePharmacy.Tests
Solution
OnlinePharmacy.Tests/OnlinePharmacy.Tests.csproj
MSBuild Arguments
Platform
Configuration
Clean
Visual Studio Version
Visual Studio 2015
Advanced
Control Options
Enabled
Continue on error
Always run
Timeout
0

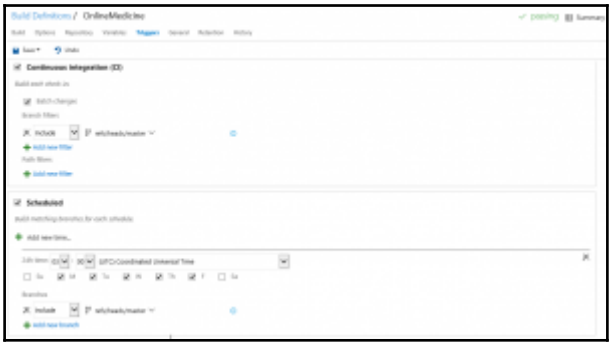
Unit Test assemblies
Execution Options
Test Assembly
***tests*.dll;-:**\obj**
Test Filter criteria
Run Settings File
Override TestRun Parameters
Code Coverage Enabled
Run In Parallel
Advanced Execution Options
Reporting Options
Control Options
Enabled
Continue on error
Always run
Timeout
0

Replace tokens in ***.SetParameters.xml
Root directory
OnlinePharmacy\Deployment
Target files
***.SetParameters.xml
Output file encoding
auto
Write unicode BOM
Missing variables
Advanced
Token prefix
Token suffix
Control Options
Enabled
Continue on error
Always run
Timeout
0

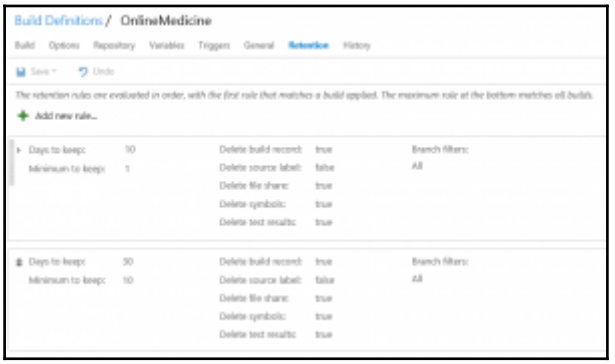
Archive WebDeploy files
Root folder (or file) to archive
$(BUILD.SOURCESDIRECTORY)\OnlinePharmacy\Deployment\
Prefix root folder name to archive paths
Archive
Archive type
zip
Archive file to create
$(Build.ArtifactStagingDirectory)\Deployment.zip
Replace existing archive
Control Options
Enabled
Continue on error
Always run
Timeout
0


Copy Publish Artifact to Drop folder
Copy Root
Contents
***
Artifact Name
Drop
Artifact Type
Server
Control Options
Enabled
Continue on error
Always run
Timeout
0

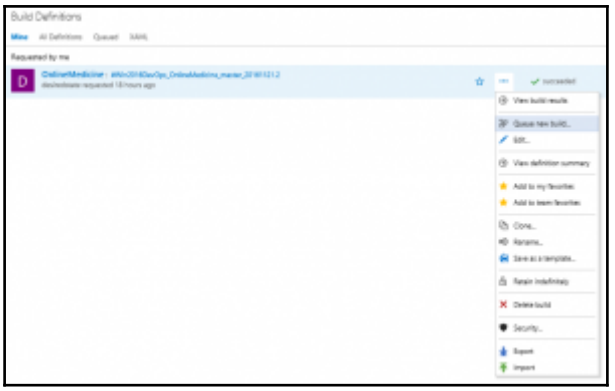
Build Definitions / OnlineMedicine
Multi-configuration
Multipliers
$(BuildPlatform), $(BuildConfiguration)
Multi-agent
Continue on Error
Create Work Item on Failure
Type
Bug
Assign to requestor
Additional Fields
Add field
Allow Scripts to Access OAuth Token

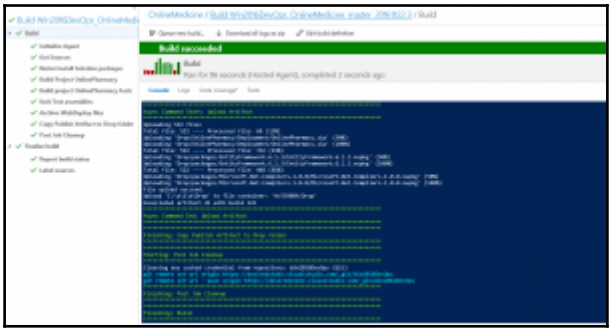

Build Definitions / OnlineMedicine
passing
Summary
Continuous integration (CI)
Batch changes
Branch filters
Include
refs/heads/master
Add new filter
Path filters
Add new filter
Scheduled
Add new item...
UTC (Coordinated Universal Time)
Branches
Include
refs/heads/master
Add new branch

Build Definitions / OnlineMedicine
Build
Options
Repository
Variables
Triggers
General
Retention
History
Save
Undo
Default agent queue
Hosted
Build job authorization scope
Project Collection
Description
OnlineMedicine sample application build pipeline
Build number format
Build job timeout in minutes
60
Badge enabled
Show url...
Demands
Name
Type
Value
Add demand

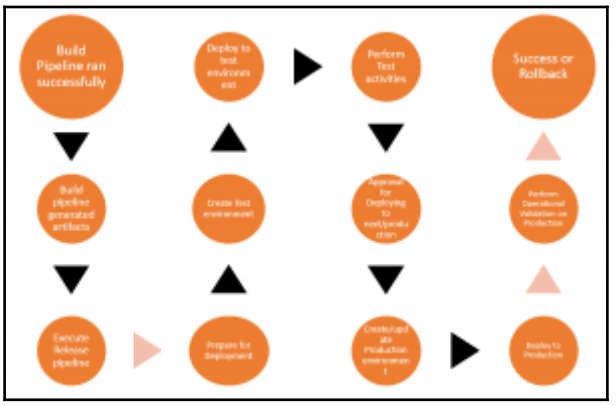

Build Definitions / OnlineMedicine
Build
Options
Repository
Variables
Triggers
General
Retention
History
Save
Undo
Add new rule...
Days to keep:
10
Minimum to keep:
1
Delete build record:
true
Delete source label:
false
Delete file share:
true
Delete symbols:
true
Delete test results:
true
Branch filters:
All
Days to keep:
30
Minimum to keep:
10
Delete build record:
true
Delete source label:
false
Delete file share:
true
Delete symbols:
true
Delete test results:
true
Branch filters:
All

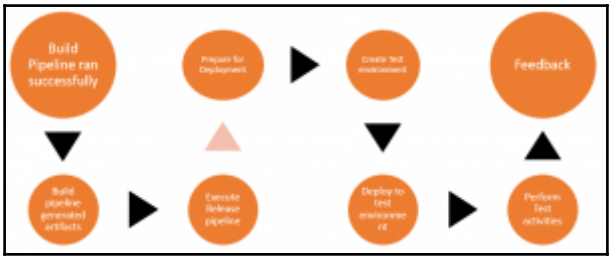
Build Definitions / OnlineMedicine
Build
Options
Repository
Variables
Triggers
General
Retention
History
Save
Undo
Diff
Revert
Changed By
Changed Date
Change Type
Comment
desiredstate
11/20/2016 3:49:50 PM
Update
desiredstate
11/20/2016 3:39:40 PM
Update

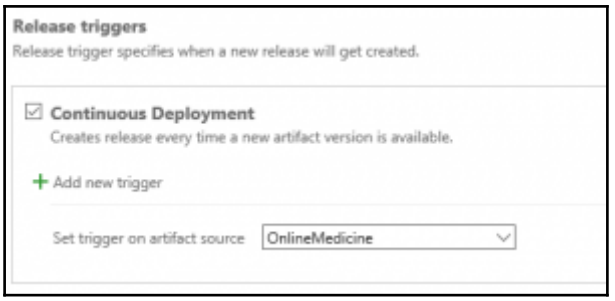

Build Definitions
Mine
All Definitions
Queued
YAML
Requested by me
View build results
Queue new build...
Edit...
View definition summary
Add to my favorites
Add to team favorites
Clone...
Rename...
Save as a template...
Retain indefinitely
Delete build
Security...
Export
Import


Build succeeded

Chapter 10: Continuous Delivery and Deployment

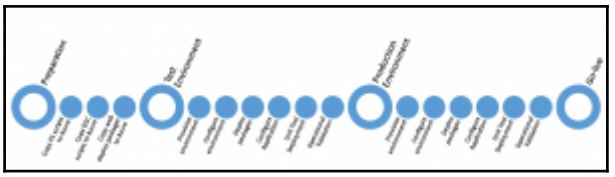





Release triggers
Release trigger specifies when a new release will get created.
Continuous Deployment
Creates release every time a new artifact version is available.
Add new trigger
Set trigger on artifact source
OnlineMedicine

Win2016DevOps
Overview
Work
Security
Endpoints
XAML Build Services
New Service Endpoint
Azure Classic
Azure Resource Manager
Azure Service Fabric
Chef
External Git
Generic
GitHub
Jenkins
SSH
Subversion

Connection name
ARM Connection
Subscription ID
Subscription Name
Service Principal Client ID
Service Principal Key
Tenant ID
Connection: Not verified
Verify connection

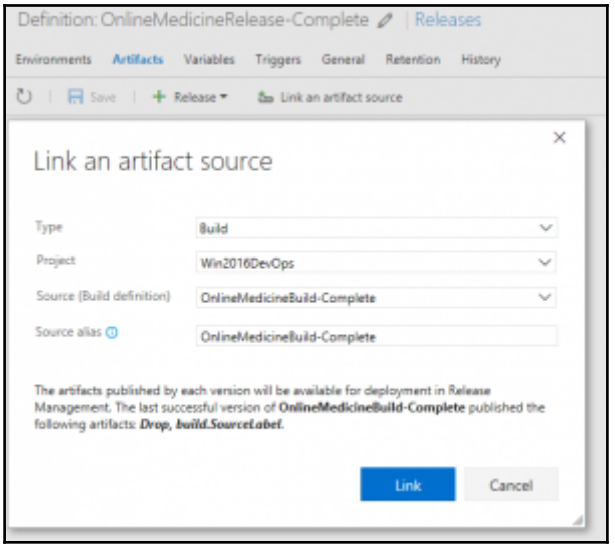


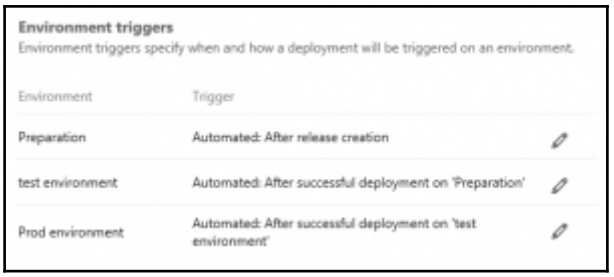
Variables

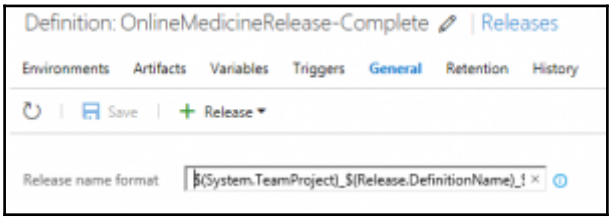
Define custom variables to use in this release definition. View list of pre-defined variables

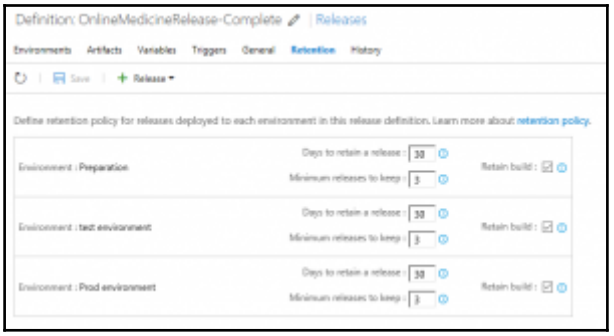
Name	Value
StorageAccountName	win2016devops
ContainerName	armt
resourceGroupName	win2016devops
StorageSAS	•••••••••

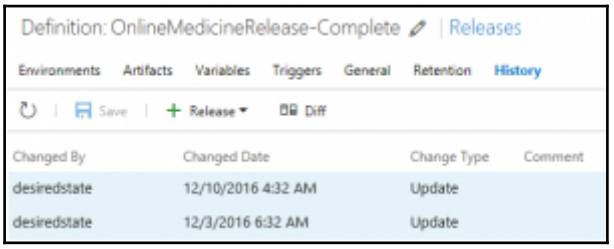
+ Add variable

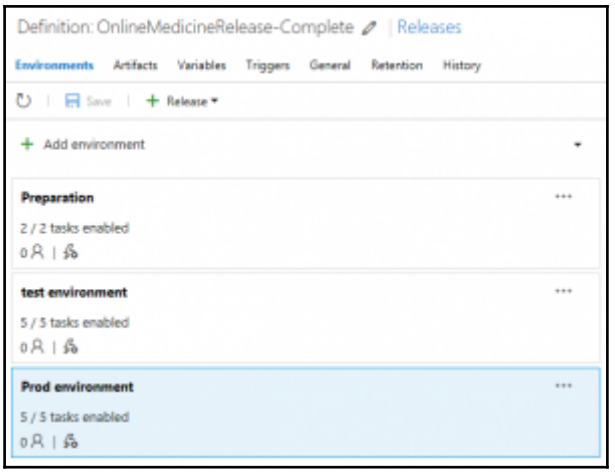


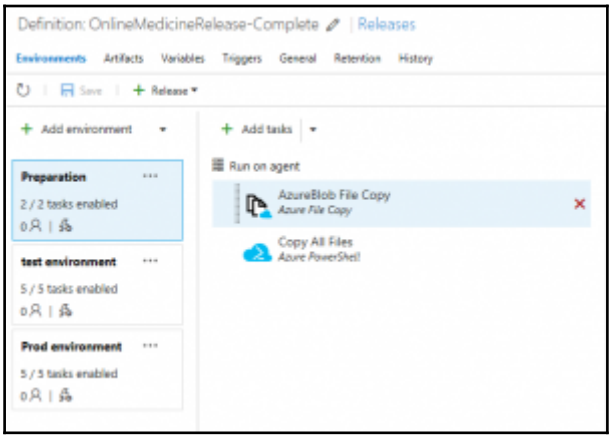

Environment triggers
Environment triggers specify when and how a deployment will be triggered on an environment.
Environment
Trigger
Preparation
Automated: After release creation
test environment
Automated: After successful deployment on 'Preparation'
Prod environment
Automated: After successful deployment on 'test environment'

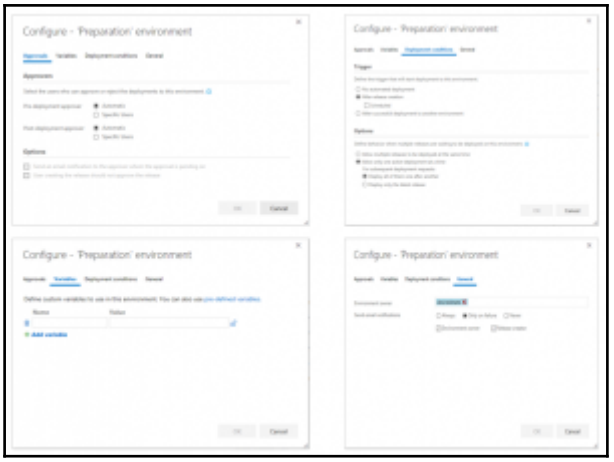

Definition: OnlineMedicineRelease-Complete
Releases
Environments
Artifacts
Variables
Triggers
General
Retention
History
Save
Release
Release name format
$(System.TeamProject)_$(Release.DefinitionName)_$

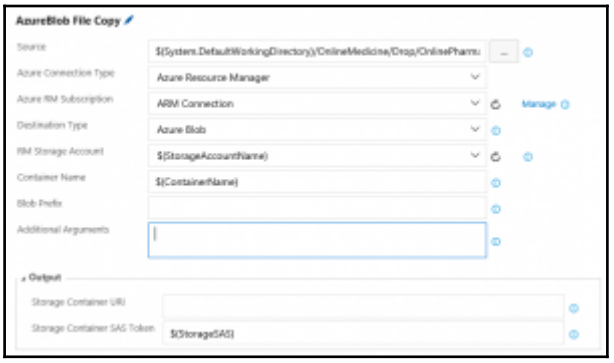

Definition: OnlineMedicineRelease-Complete
Releases
Environments
Artifacts
Variables
Triggers
General
Retention
History
Save
Release
Define retention policy for releases deployed to each environment in this release definition. Learn more about retention policy.
Environment : Preparation
Days to retain a release :
30
Minimum releases to keep :
3
Retain build :
Environment : test environment
Days to retain a release :
30
Minimum releases to keep :
3
Retain build :
Environment : Prod environment
Days to retain a release :
30
Minimum releases to keep :
3
Retain build :

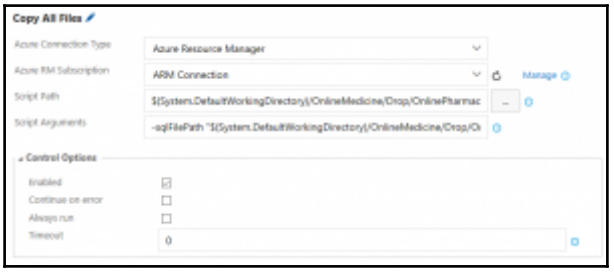

Definition: OnlineMedicineRelease-Complete
Releases
Environments
Artifacts
Variables
Triggers
General
Retention
History
Save
Release
Diff
Changed By
Changed Date
Change Type
Comment
desiredstate
12/10/2016 4:32 AM
Update
desiredstate
12/3/2016 6:32 AM
Update

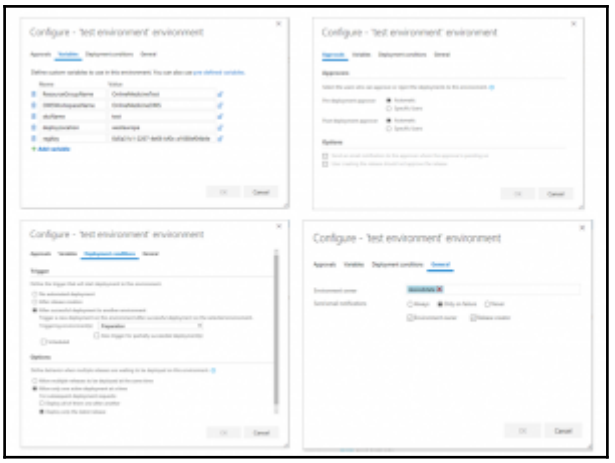

Definition: OnlineMedicineRelease-Complete
Releases
Environments
Artifacts
Variables
Triggers
General
Retention
History
Save
Release
Add environment
Preparation
2 / 2 tasks enabled
0
test environment
5 / 5 tasks enabled
0
Prod environment
5 / 5 tasks enabled
0

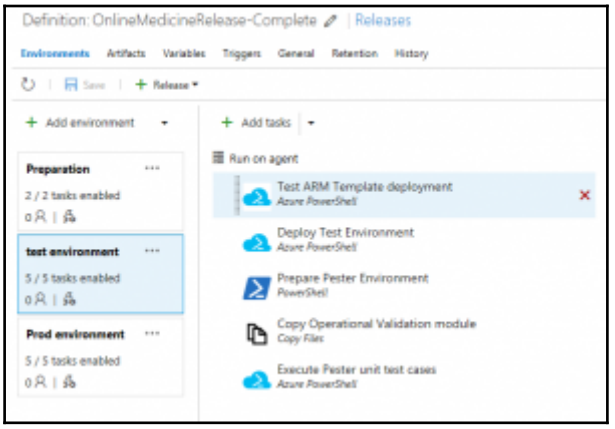

Definition: OnlineMedicineRelease-Complete
Releases
Environments
Artifacts
Variables
Triggers
General
Retention
History
Save
Release
Add environment
Preparation
2 / 2 tasks enabled
0
test environment
5 / 5 tasks enabled
0
Prod environment
5 / 5 tasks enabled
0
Add tasks
Run on agent
AzureBlob File Copy
Azure File Copy
Copy All Files
Azure PowerShell

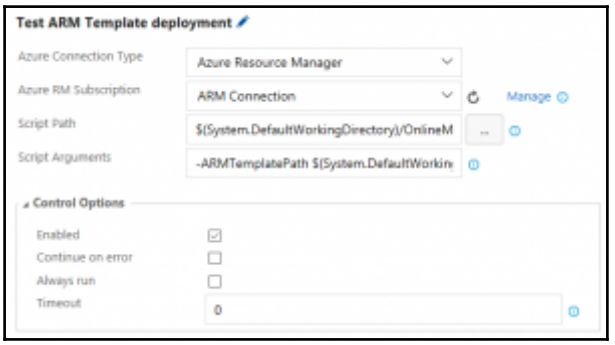

Configure - 'Preparation' environment
Configure - 'Preparation' environment
Configure - 'Preparation' environment
Configure - 'Preparation' environment


AzureBlob File Copy
Source
$(System.DefaultWorkingDirectory)/OnlineMedicine/Drop/OnlinePharmu
Azure Connection Type
Azure Resource Manager
Azure RM Subscription
ARM Connection
Manage
Destination Type
Azure Blob
RM Storage Account
$(StorageAccountName)
Container Name
$(ContainerName)
Blob Prefix
Additional Arguments
Output
Storage Container URI
Storage Container SAS Token
$(StorageSAS)


Copy All Files
Azure Connection Type
Azure Resource Manager
Azure RM Subscription
ARM Connection
Manage
Script Path
$(System.DefaultWorkingDirectory)/OnlineMedicine/Drop/OnlinePharmac
Script Arguments
-sqlFilePath "$(System.DefaultWorkingDirectory)/OnlineMedicine/Drop/Or
Control Options
Enabled
Continue on error
Always run
Timeout
0

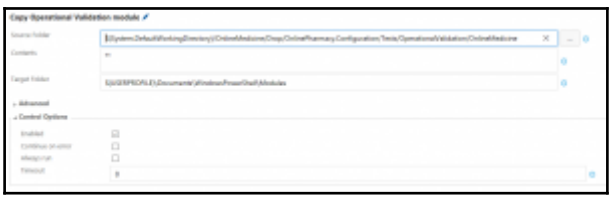

Configure - 'test environment' environment
Configure - 'test environment' environment
Configure - 'test environment' environment
Configure - 'test environment' environment


Definition: OnlineMedicineRelease-Complete
Releases
Environments
Artifacts
Variables
Triggers
General
Retention
History
Save
Release
Add environment
Preparation
2 / 2 tasks enabled
test environment
5 / 5 tasks enabled
Prod environment
5 / 5 tasks enabled
Add tasks
Run on agent
Test ARM Template deployment
Azure PowerShell
Deploy Test Environment
Azure PowerShell
Prepare Pester Environment
PowerShell
Copy Operational Validation module
Copy Files
Execute Pester unit test cases
Azure PowerShell

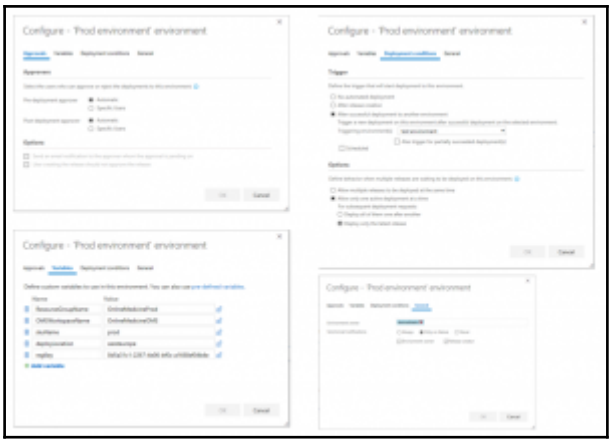

Test ARM Template deployment
Azure Connection Type
Azure Resource Manager
Azure RM Subscription
ARM Connection
Manage
Script Path
$(System.DefaultWorkingDirectory)/OnlineM
Script Arguments
-ARMTemplatePath $(System.DefaultWorkin
Control Options
Enabled
Continue on error
Always run
Timeout
0

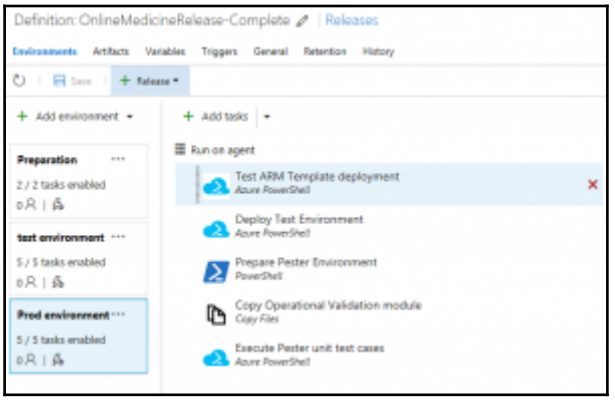
Deploy Test Environment
Azure Resource Manager
ARM Connection
Manage
Control Options

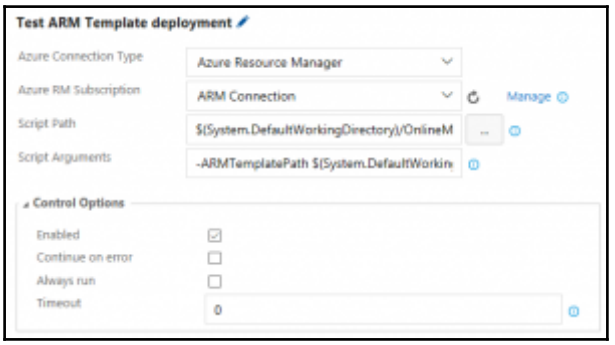
Prepare Poster Environment
File Path
Advanced
Control Options


Copy Operational Validation module
Advanced
Control Options

Execute Pester unit test cases
Azure Resource Manager
ARM Connection
Manage
Control Options

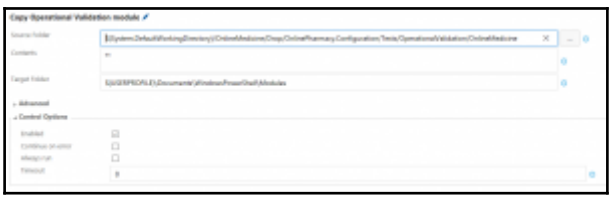

Configure - 'Prod environment' environment
Configure - 'Prod environment' environment
Configure - 'Prod environment' environment
Configure - 'Prod environment' environment


Definition: OnlineMedicineRelease-Complete
Releases
Environments
Artifacts
Variables
Triggers
General
Retention
History
Save
Release
Add environment
Add tasks
Preparation
2 / 2 tasks enabled
test environment
5 / 5 tasks enabled
Prod environment
5 / 5 tasks enabled
Run on agent
Test ARM Template deployment
Azure PowerShell
Deploy Test Environment
Azure PowerShell
Prepare Pester Environment
PowerShell
Copy Operational Validation module
Copy Files
Execute Pester unit test cases
Azure PowerShell

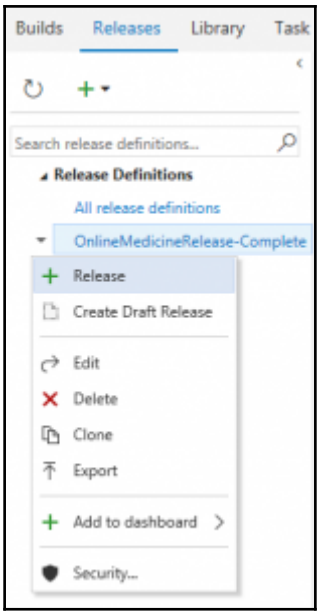

Test ARM Template deployment
Azure Connection Type
Azure Resource Manager
Azure RM Subscription
ARM Connection
Manage
Script Path
$(System.DefaultWorkingDirectory)/OnlineM
Script Arguments
-ARMTemplatePath $(System.DefaultWorkin
Control Options
Enabled
Continue on error
Always run
Timeout
0

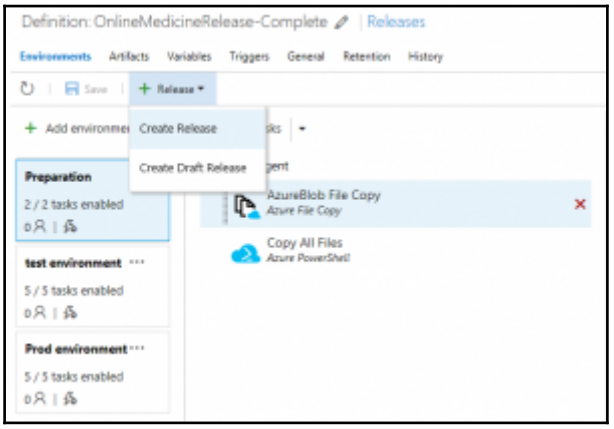
Deploy Test Environment
Azure Resource Manager
ARM Connection
Manage
Control Options

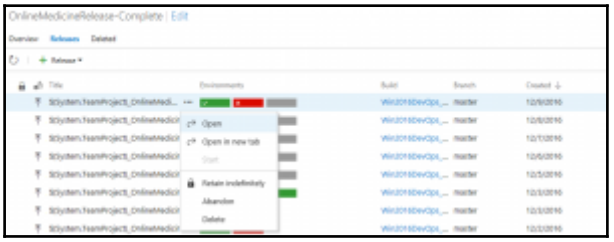
Prepare Poster Environment
File Path
Advanced
Control Options

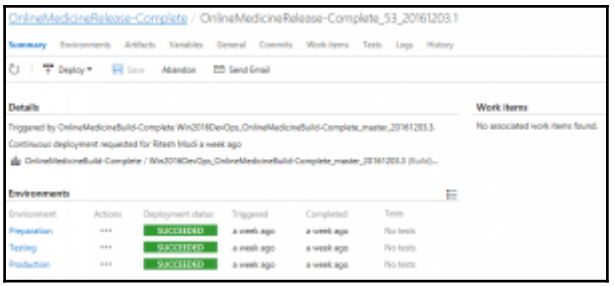

Copy Operational Validation module
Advanced
Control Options

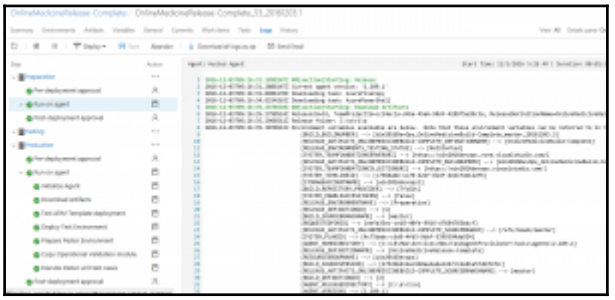
Execute Pester unit test cases
Azure Resource Manager
ARM Connection
Manage
Control Options


Builds
Releases
Library
Task
Search release definitions...
Release Definitions
All release definitions
OnlineMedicineRelease-Complete
Release
Create Draft Release
Edit
Delete
Clone
Export
Add to dashboard
Security...

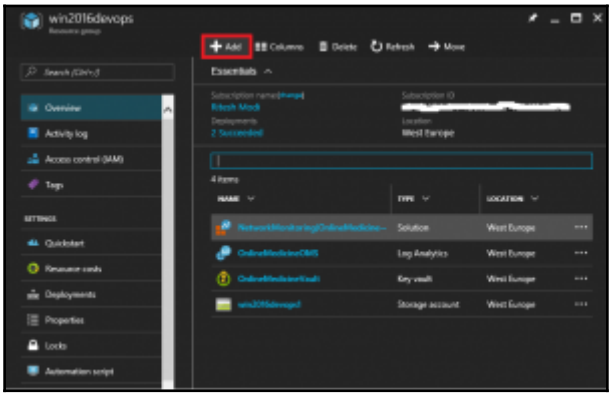

Definition: OnlineMedicineRelease-Complete
Releases
Environments
Artifacts
Variables
Triggers
General
Retention
History
Release
Create Release
Create Draft Release
Preparation
2 / 2 tasks enabled
test environment
5 / 5 tasks enabled
Prod environment
5 / 5 tasks enabled
AzureBlob File Copy
Azure File Copy
Copy All Files
Azure PowerShell

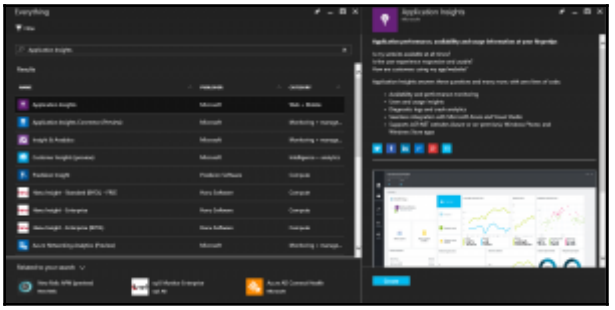

OnlineMedicineRelease-Complete | Edit

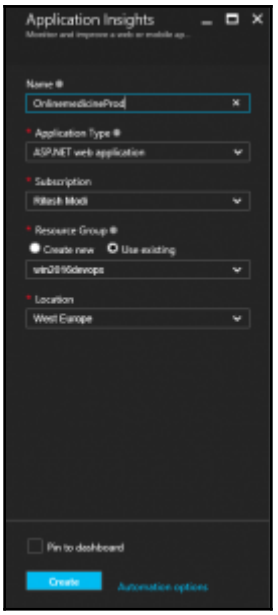

OnlineMedicineRelease-Complete / OnlineMedicineRelease-Complete_53_20161203.1
Summary
Environments
Artifacts
Variables
General
Commits
Work items
Tests
Logs
History
Deploy
Save
Abandon
Send Email
Details
Triggered by OnlineMedicineBuild-Complete Win2016DevOps_OnlineMedicineBuild-Complete_master_20161203.3.
Continuous deployment requested for Ritesh Modi a week ago
OnlineMedicineBuild-Complete / Win2016DevOps_OnlineMedicineBuild-Complete_master_20161203.3 (Build)...
Work items
No associated work items found.
Environments
Environment
Actions
Deployment status
Triggered
Completed
Tests
Preparation
SUCCEEDED
a week ago
a week ago
No tests
Testing
SUCCEEDED
a week ago
a week ago
No tests
Production
SUCCEEDED
a week ago
a week ago
No tests

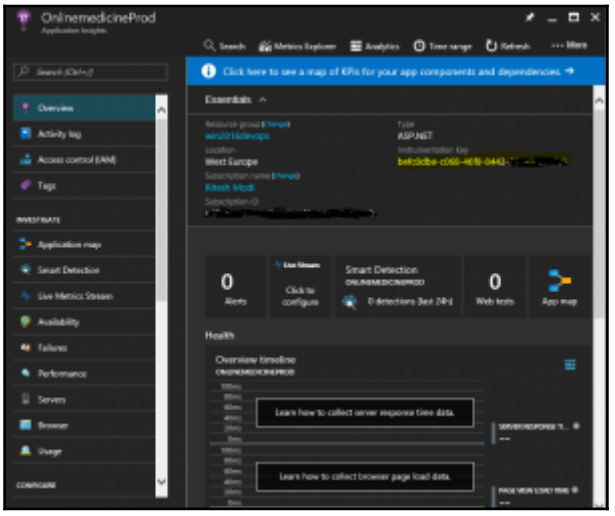


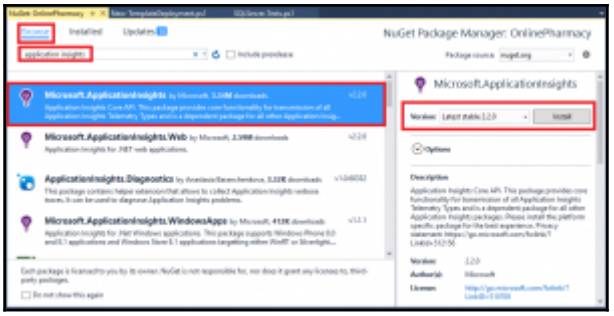
Chapter 11: Monitoring and Measuring





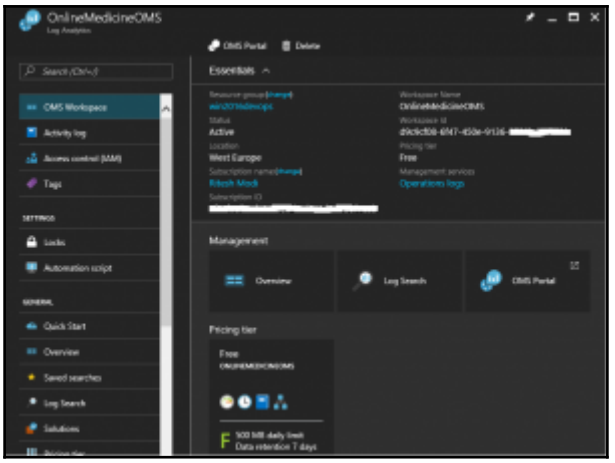

Application Insights
Name
OnlinemedicineProd
Application Type
ASP.NET web application
Subscription
Ritesh Modi
Resource Group
Create new
Use existing
win2016devops
Location
West Europe
Pin to dashboard
Create
Automation options

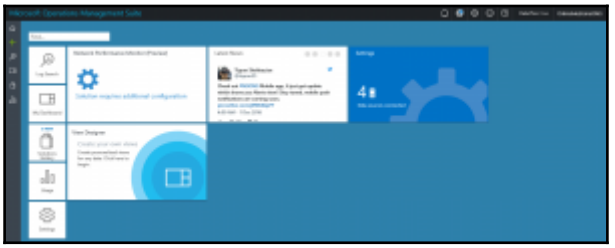

OnlinemedicineProd
Search
Metrics Explorer
Analytics
Time range
Refresh
More
Overview
Activity log
Access control (IAM)
Tags
Application map
Smart Detection
Live Metrics Stream
Availability
Failures
Performance
Servers
Browser
Usage
Click here to see a map of KPIs for your app components and dependencies.
Essentials
Type
ASP.NET
Location
West Europe
Ritesh Modi
0
Alerts
Click to configure
Smart Detection
0
Web tests
App map
Health
Overview timeline
Learn how to collect server response time data.
Learn how to collect browser page load data.

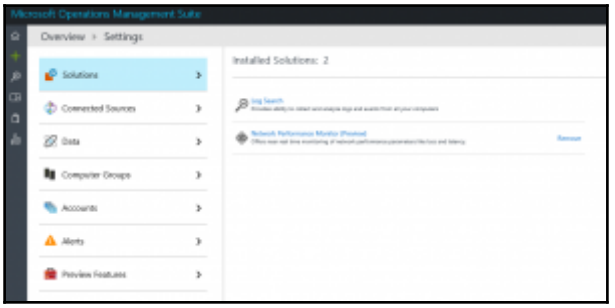

NuGet Package Manager: OnlinePharmacy
Browse
Installed
Updates
application insights
Microsoft.ApplicationInsights
Microsoft.ApplicationInsights.Web
ApplicationInsights.Diagnostics
Microsoft.ApplicationInsights.WindowsApps
Microsoft.ApplicationInsights
Version: Latest stable 2.9.1
Install
Options
Description
Version: 2.9.1
Author(s): Microsoft
License

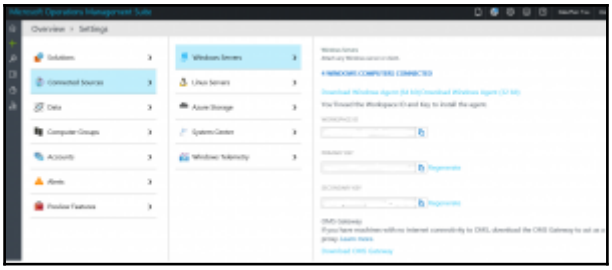
ApplicationInsights.config
<?xml version="1.0" encoding="utf-8"?>
<ApplicationInsights xmlns="http://schemas.microsoft.com/ApplicationInsights/2013/Settings">
</ApplicationInsights>

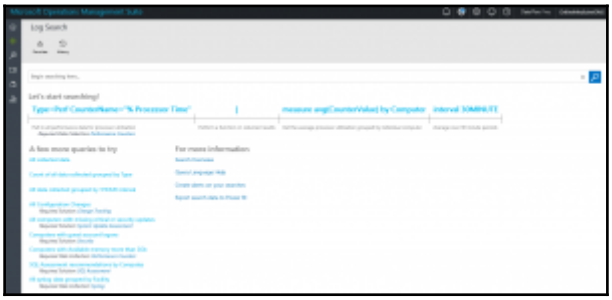
Live Metrics Stream
Incoming Requests
Outgoing Requests
Overall Health

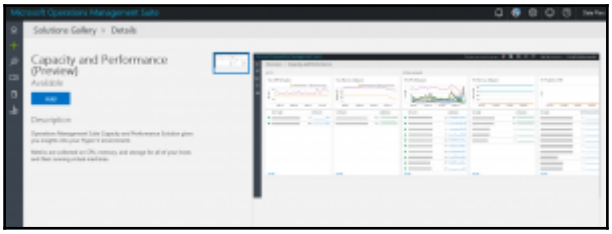

OnlineMedicineOMS
Log Analytics
OMS Portal
Delete
Essentials
OMS Workspace
Activity log
Access control (IAM)
Tags
Locks
Automation script
Quick Start
Overview
Saved searches
Log Search
Solutions
Status
Active
Location
West Europe
Pricing tier
Free
Management services
Operations logs
Management
Overview
Log Search
OMS Portal
Pricing tier
Free
500 MB daily limit
Data retention 7 days




Microsoft Operations Management Suite
Overview > Settings
Solutions
Connected Sources
Data
Computer Groups
Accounts
Alerts
Preview Features
Installed Solutions: 2


Microsoft Operations Management Suite
Overview > Settings
Solutions
Connected Sources
Data
Computer Groups
Accounts
Alerts
Preview Features
Windows Servers
Linux Servers
Azure Storage
System Center
Windows Telemetry


Microsoft Operations Management Suite
Log Search
Let's start searching!
Type=Perf CounterName="% Processor Time"
measure avg(CounterValue) by Computer
interval 30MINUTE
A few more queries to try
For more information


Microsoft Operations Management Suite
Solutions Gallery > Details
Capacity and Performance (Preview)
Available
Description