

## Self Hosted Agents

### 1. Create Windows Virtual Machine with the configuration specified in the screenshot.

[Home](#) > [Virtual machines](#) >

#### Create a virtual machine ...

[Help me create a low cost VM](#) [Help me create a VM optimized for high availability](#) [Help me choose the right VM size for my workload](#)

Subscription \* ⓘ

MSDN Platforms Subscription

Resource group \* ⓘ

demoretail

[Create new](#)

**Instance details**

Virtual machine name \* ⓘ

vmdemo

Region \* ⓘ

(US) East US

Availability options ⓘ


No infrastructure redundancy required

Security type ⓘ

Trusted launch virtual machines

[Configure security features](#)

Image \* ⓘ


 Windows Server 2022 Datacenter: Azure Edition - x64 Gen2

[See all images](#) | [Configure VM generation](#)

VM architecture ⓘ

☐ Arm64

☒ x64

 Arm64 is not supported with the selected image.


Size \* ⓘ

Standard\_D2s\_v3 - 2 vcpus, 8 GiB memory (₹5,830.28/month)

[See all sizes](#)

Enable Hibernation ⓘ

☐

 Hibernation is not supported by the size that you have selected. Choose a size that is compatible with Hibernation to enable this feature. [Learn more](#)

**Administrator account**

Username \* ⓘ

azureuser

Password \*

\*\*\*\*\*

Confirm password \*

\*\*\*\*\*

**Inbound port rules**

Select which virtual machine network ports are accessible from the public internet. You can specify more limited or granular network access on the Networking tab.

Public inbound ports \* ⓘ

☐ None

☒ Allow selected ports

Select inbound ports \*

HTTP (80), HTTPS (443), RDP (3389)

Keep other settings as default.

Home > **CreateVm-MicrosoftWindowsServer.WindowsServer-202-20240907115522 | Overview**

Deployment

Search

**Overview**

- Inputs
- Outputs
- Template

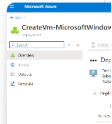
**Deployment is in progress**

Deployment name: CreateVm-MicrosoftWindowsServer.WindowsSe... Start time: 9/7/2024, 11:56:43 AM  
Subscription: MSDN Platforms Subscription Correlation ID: 1892909b-44cc-4be1-9471-238daf38824

Deployment details

Resource	Type	Status	Operation details
vmdemo	Microsoft.Compute/virtualMachines	Created	<a href="#">Operation details</a>
vmdemo340	Microsoft.Network/networkInterfaces	Created	<a href="#">Operation details</a>
vmdemo-vnet	Microsoft.Network/virtualNetworks	OK	<a href="#">Operation details</a>
vmdemo-nsg	Microsoft.Network/networkSecurityGroups	OK	<a href="#">Operation details</a>
vmdemo-ip	Microsoft.Network/publicIpAddresses	OK	<a href="#">Operation details</a>

Give feedback  
[Tell us about your experience with deployment](#)



## Select Public Ip address and take RDP of that machine

Home > **vmdemo**

Virtual machine

Search

**Overview**

- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems
- Connect
  - Connect
  - Bastion
  - Windows Admin Center
- Networking
  - Network settings
  - Load balancing
  - Application security groups
  - Network manager
- Settings
  - Disks

**Essentials**

Resource group (move) : [demoretail](#)  
Status : Running  
Location : East US  
Subscription (move) : [MSDN Platforms Subscription](#)  
Subscription ID : c5f6b777-a115-4e13-86f4-e1af2e819314

Operating system : Windows (Windows Server 2022 Datacenter Azure Edition)  
Size : Standard E8-8v2 (8 vCPUs, 8 GiB memory)  
Public IP address : [52.234.212.184](#)   
Virtual network/subnet : [vmdemo-vnet/default](#)  
DNS name : [Not configured](#)  
Health state : -  
Time created : 9/7/2024, 6:26 AM UTC

Tags (edit) : [Add tags](#)

**Properties** Monitoring Capabilities (8) Recommendations Tutorials

**Virtual machine**

Computer name	vmdemo
Operating system	Windows (Windows Server 2022 Datacenter Azure Edition)
VM generation	V2
VM architecture	x64
Agent status	Ready

**Networking**

Public IP address	<a href="#">52.234.212.184</a> ( Network interface <a href="#">vmdemo340</a> )
Public IP address (IPv6)	-
Private IP address	10.0.0.4
Private IP address (IPv6)	-
Virtual network/subnet	<a href="#">vmdemo-vnet/default</a>

Home > **WindowsServer.WindowsServer-202-20240907115522 | Overview**

Connect

**Essentials**

Resource group (move) : [demoretail](#)  
Status : Running  
Location : East US  
Subscription (move) : [MSDN Platforms Subscription](#)  
Subscription ID : c5f6b777-a115-4e13-86f4-e1af2e819314

Operating system : Windows (Windows Server 2022 Datacenter Azure Edition)  
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Virtual network/subnet : [vmdemo-vnet/default](#)  
DNS name : [Not configured](#)  
Health state : -  
Time created : 9/7/2024, 6:26 AM UTC

**Remote Desktop Connection**

Computer: [52.234.212.184](#)  
User name: None specified  
You will be asked for credentials when you connect.

ailings Review

1 2 3

Paragraph

Select Pu

vmdemo  
Virtual machine

Search

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve

Connect

Connect

Bastion

Windows Adm

Networking

Network settin

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Application ser  
groups

Network mana

Settings

Disks

tWindowsServer.V

☆ ...



Windows Security



## Enter your credentials

These credentials will be used to connect to 52.234.212.184.

azureuser

••••••••••••••••



Remember me

### More choices



Tanvi Puri  
tanvi.p@cloudthat.com



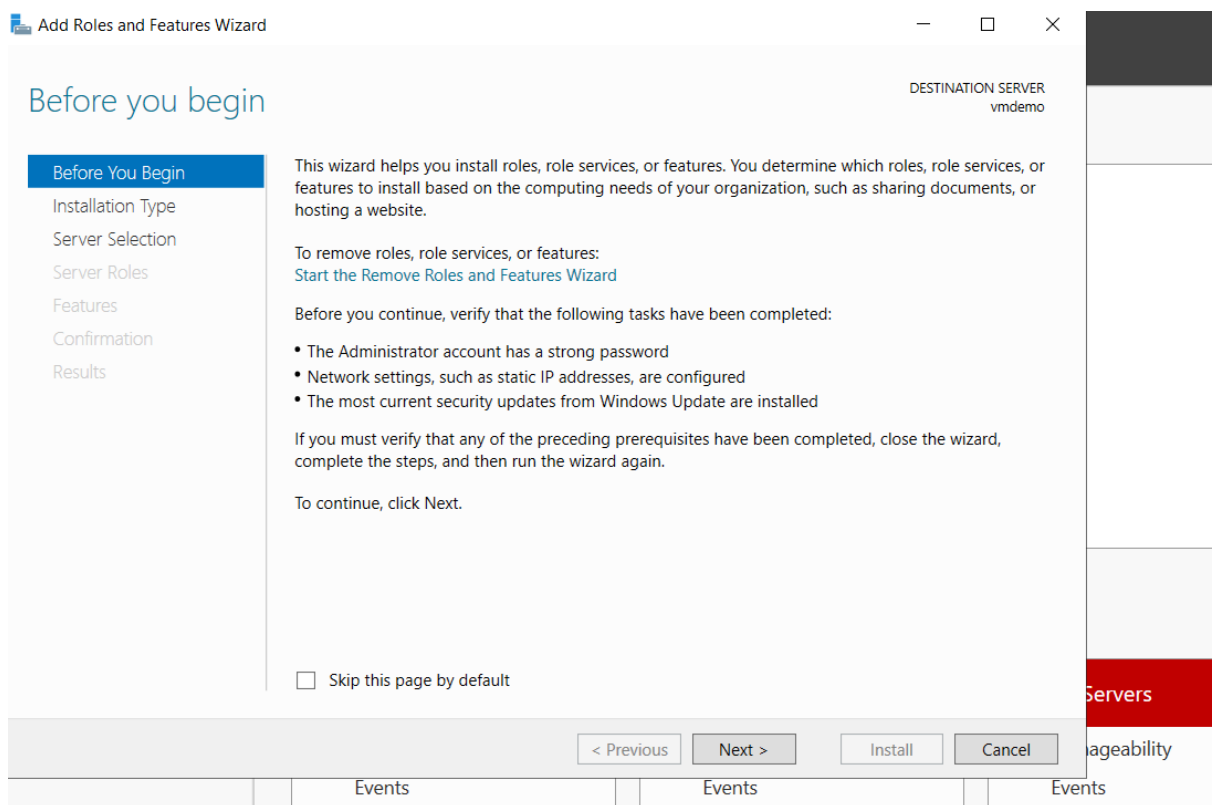
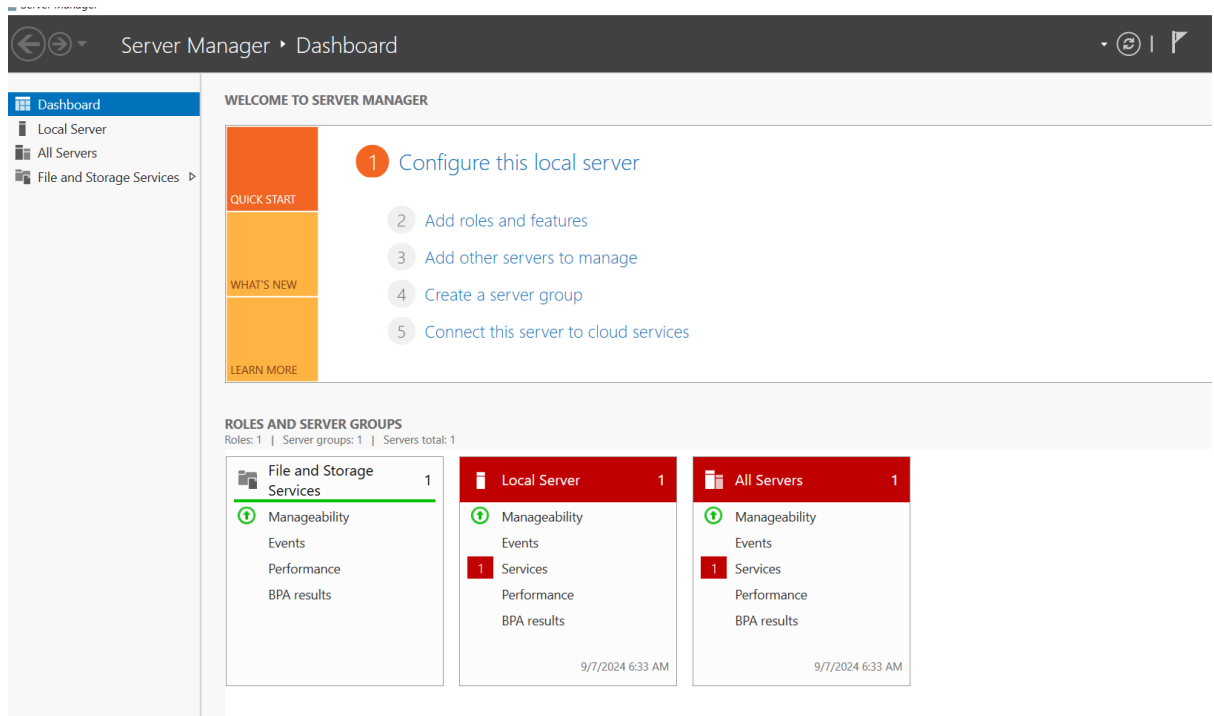
Use a different account



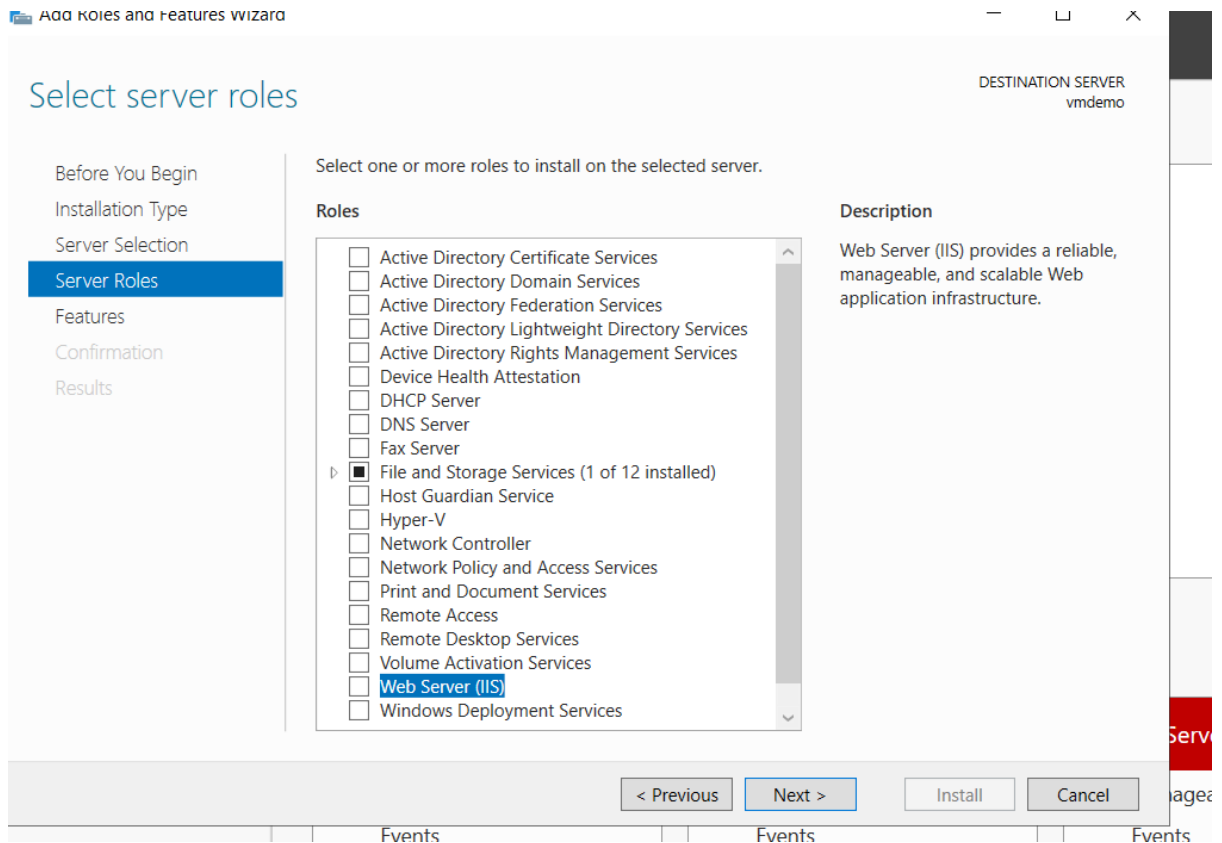
PIN  
tanvi.p@cloudthat.com

OK

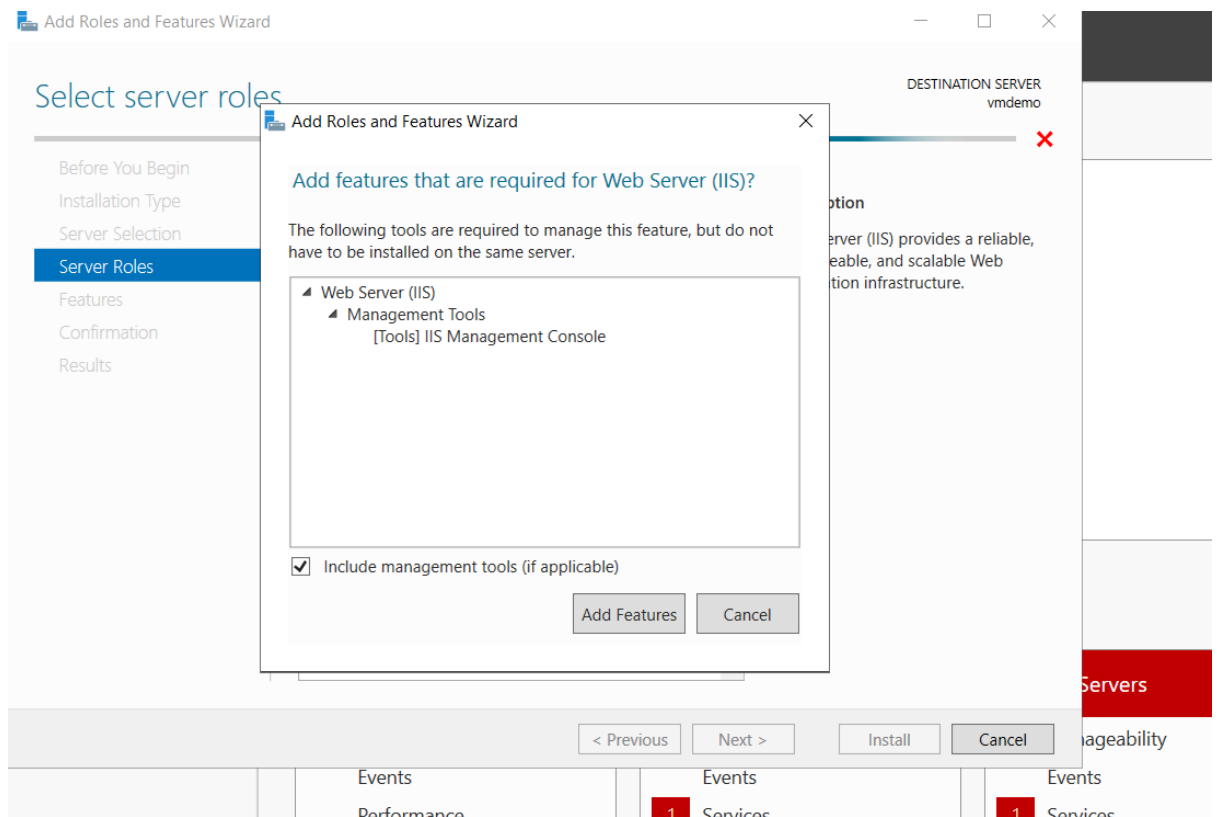
Cancel



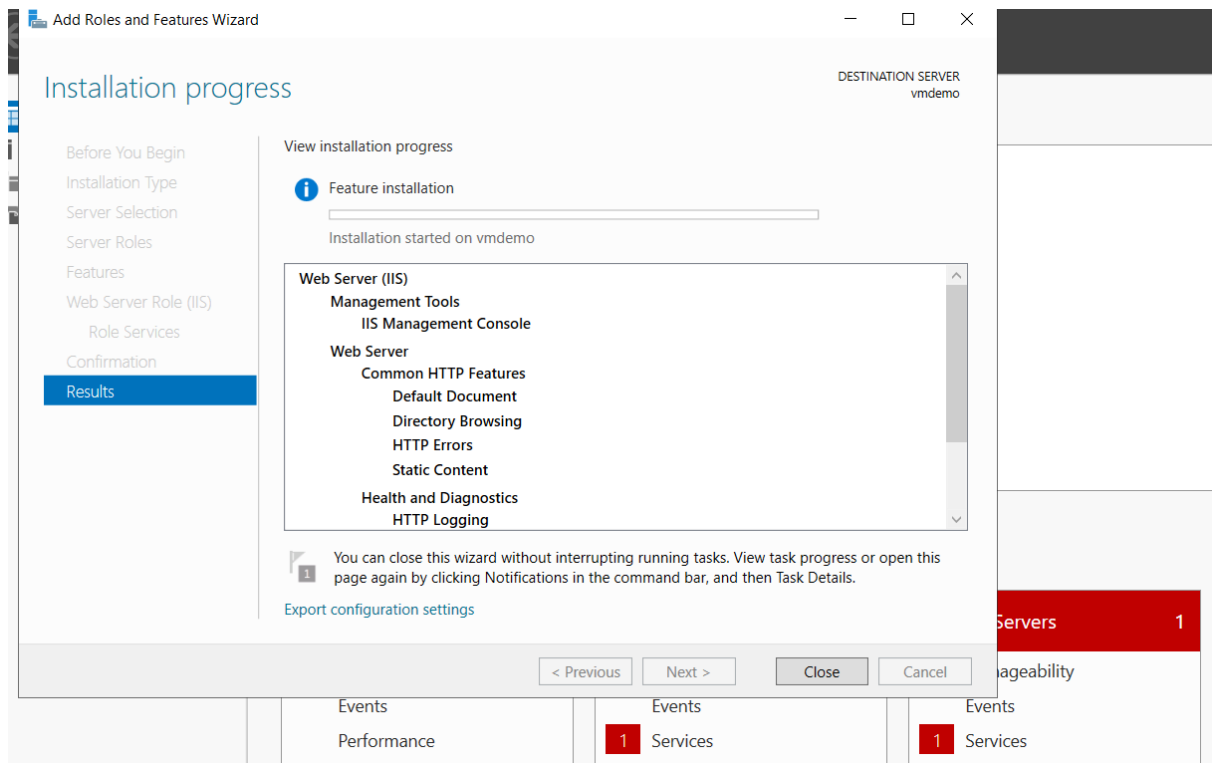
Install IIS on Windows VM. Make it a web server.



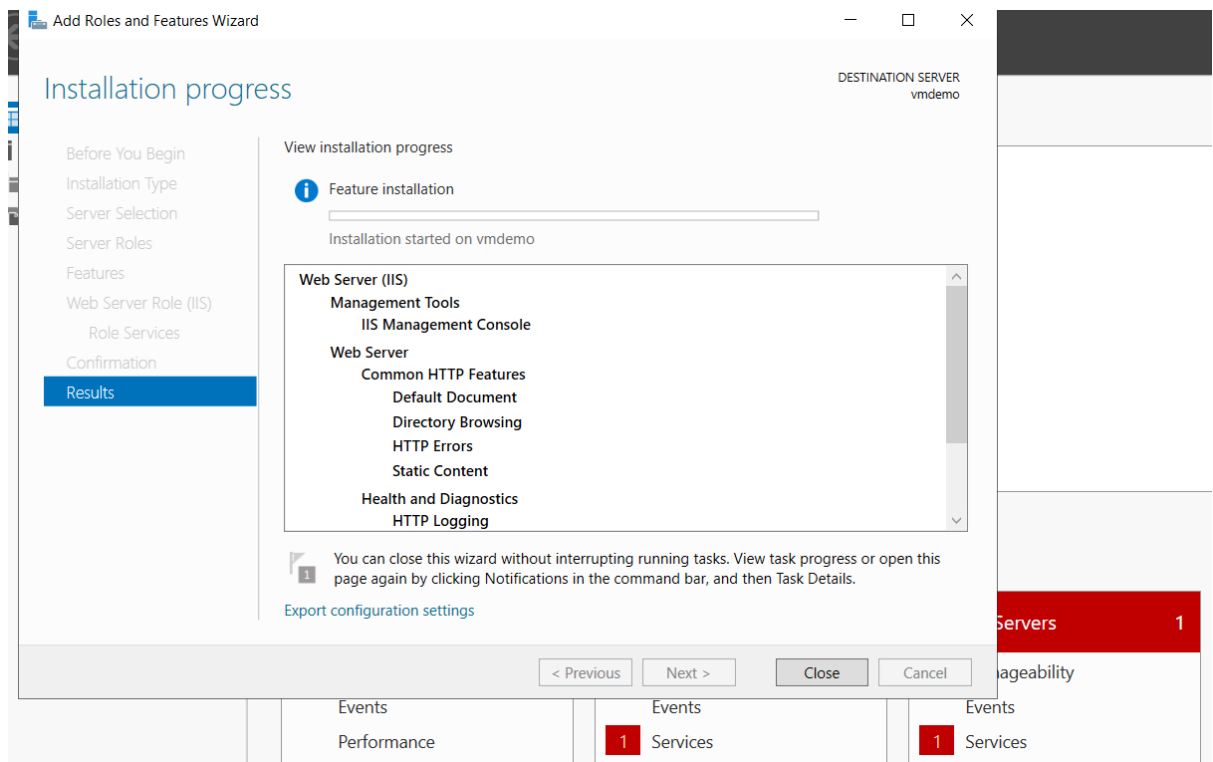
Click on Web Server(IIS)

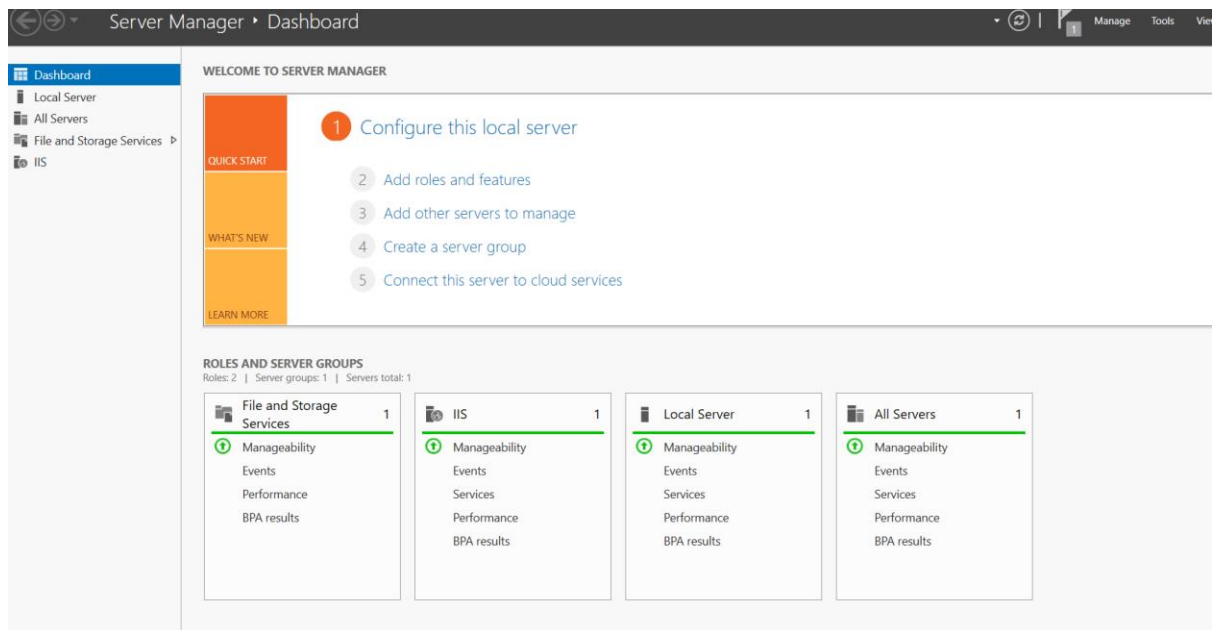


Click on Add features

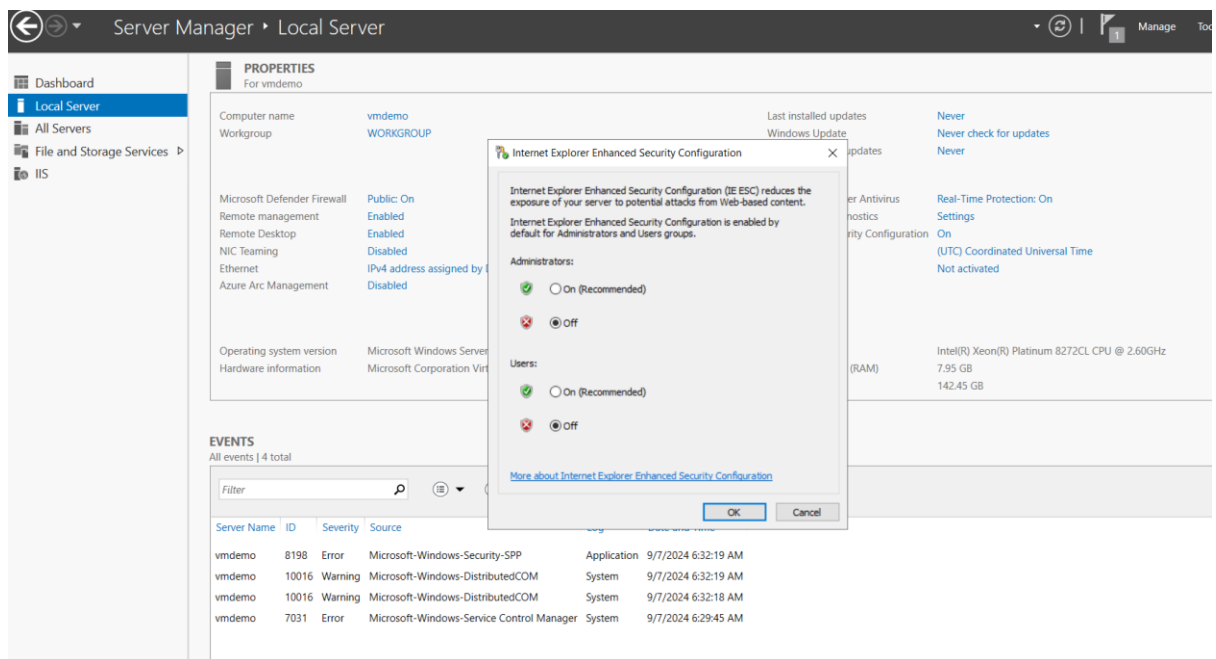


Go with Default Settings and finally click on Install.

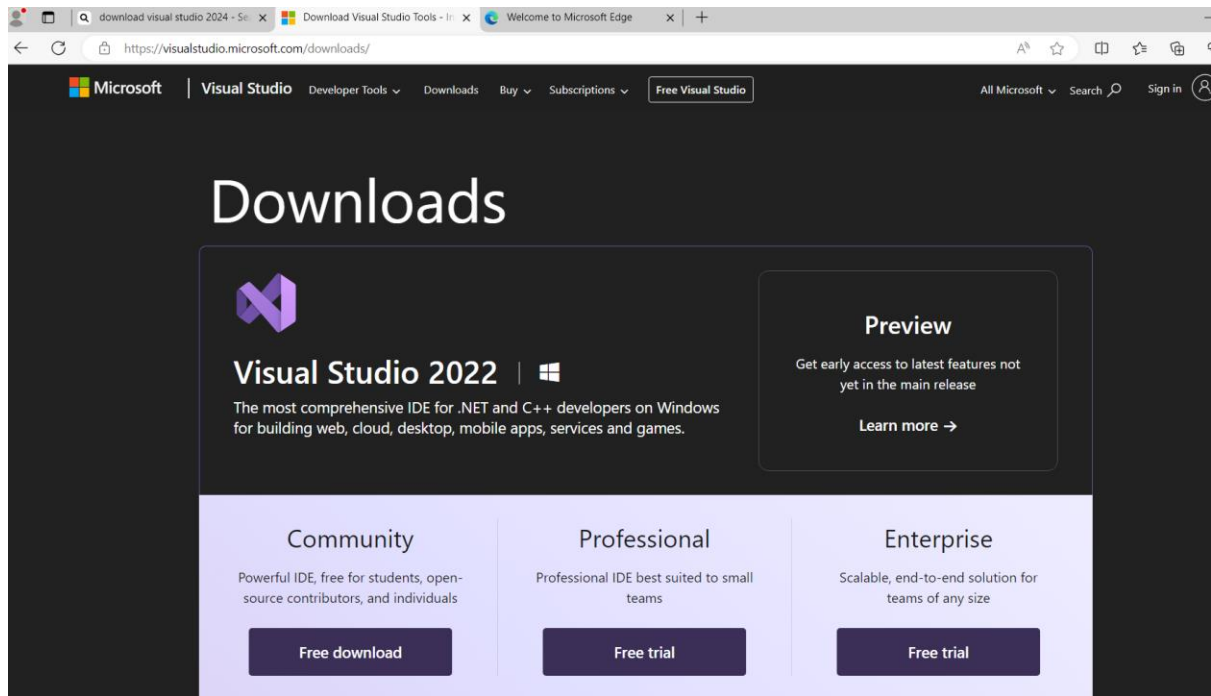




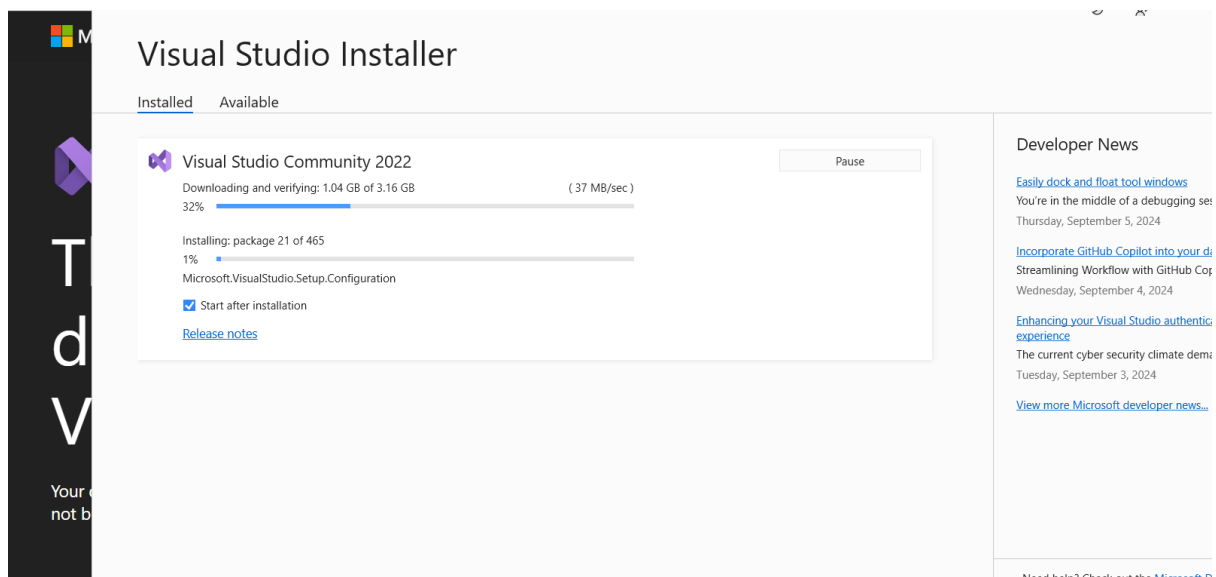
## Disable Internet Explorer Enhanced Security Configuration in Local Server



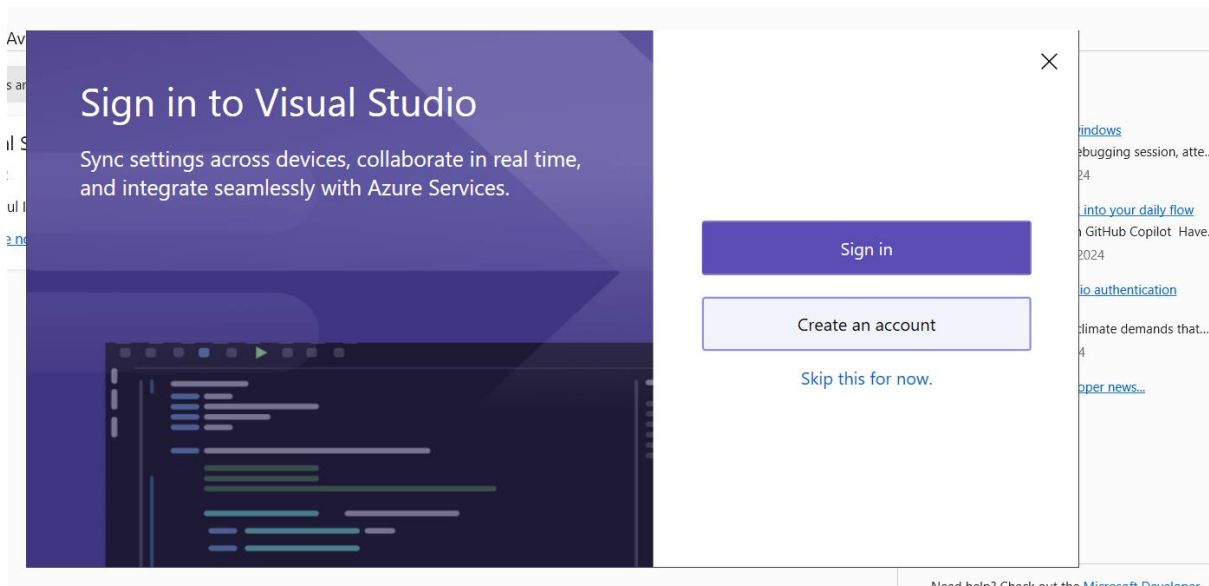
Download the community version for Visual Studio 2022 from [Download Visual Studio Tools - Install Free for Windows, Mac, Linux \(microsoft.com\)](#)



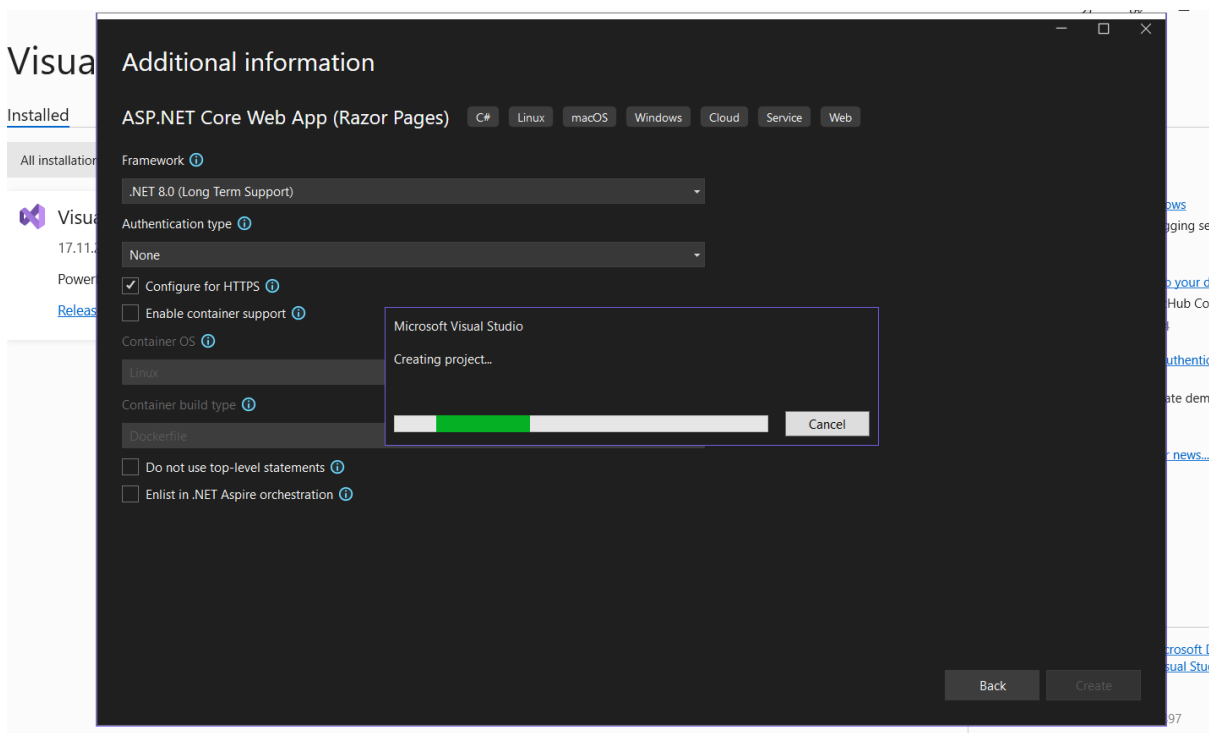
Select ASP.Net and Azure Development and Install



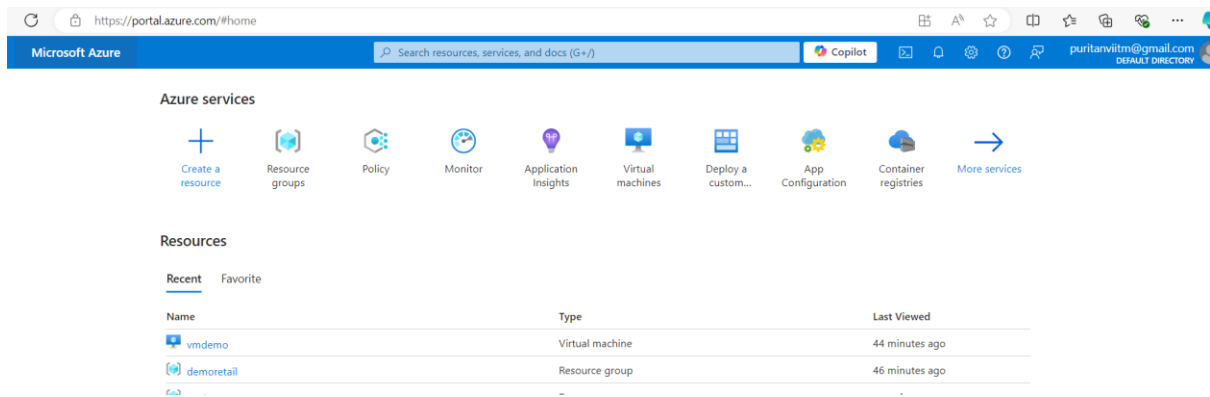




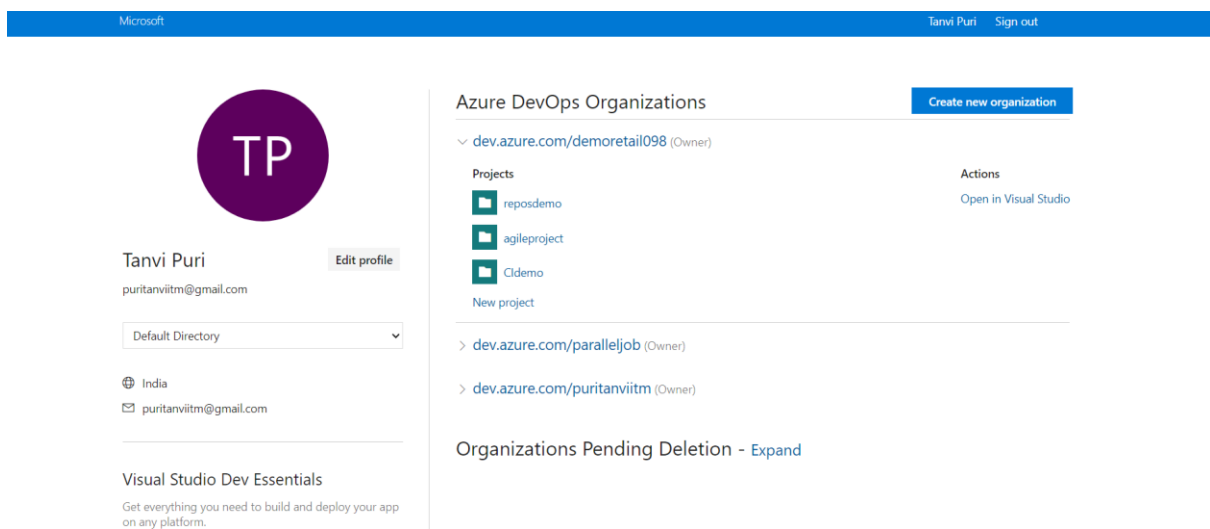
## Create a simple ASP.Net Web Application Project



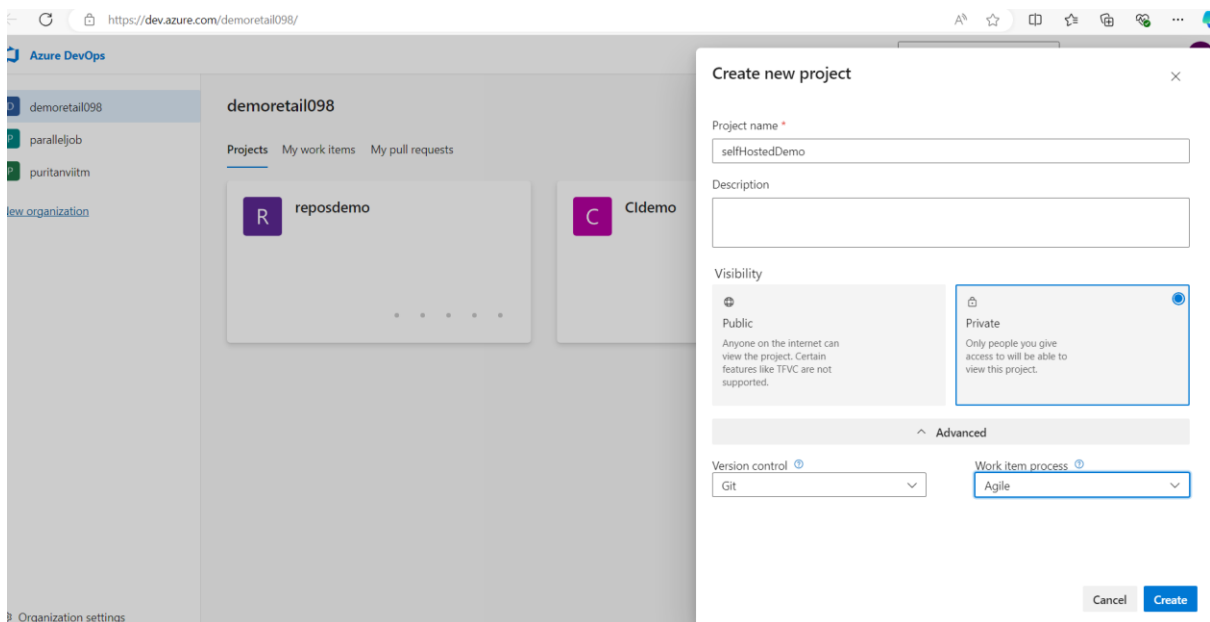
Login to AzurePortal <https://portal.azure.com/> and switch to Azure DevOps organization.



Make sure you are in your Default Directory Account



Create a new Project



Pick up the Existing Remote Repo URL

Azure DevOps demoretail098 / selfHostedDemo / Repos / Files / selfHostedDemo

selfHostedDemo is empty. Add some code!

Clone to your computer

HTTPS SSH  OR Clone in VS Code

Generate Git Credentials

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

Push an existing repository from command line

HTTPS SSH

Import a repository

Import

Paste URL in Existing Git Local Repo from Visual Studio and push to Azure Remote Repository.

Visual Studio interface showing the 'Create a Git repository' dialog. The dialog has two tabs: 'Push to a new remote' and 'Push your code to an existing remote'. The 'Push to a new remote' tab is active, showing options for GitHub, Azure DevOps, and Other. The 'Push your code to an existing remote' tab is also visible, showing the 'Remote URL' field with the value 'https://demoretail098@dev.azure.com/demoretail098/selfHostedDemo'. The 'Create and Push' button is highlighted.

https://dev.azure.com/demoretail098/\_git/selfHostedDemo

Azure DevOps demoretail098 / selfHostedDemo / Repos / Files / selfHostedDemo

selfHostedDemo

Overview Boards Repos Files Commits Pushes Branches Tags Pull requests Advanced Security Pipelines Test Plans

selfHostedDemo

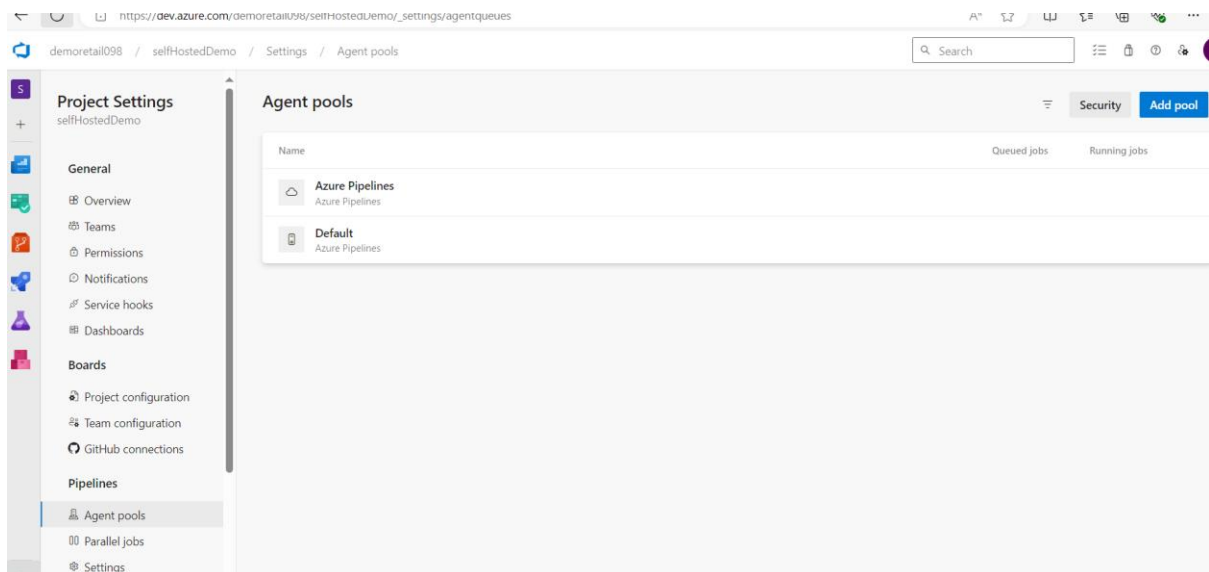
WebApplication1 .gitattributes .gitignore WebApplication1.sln

Files

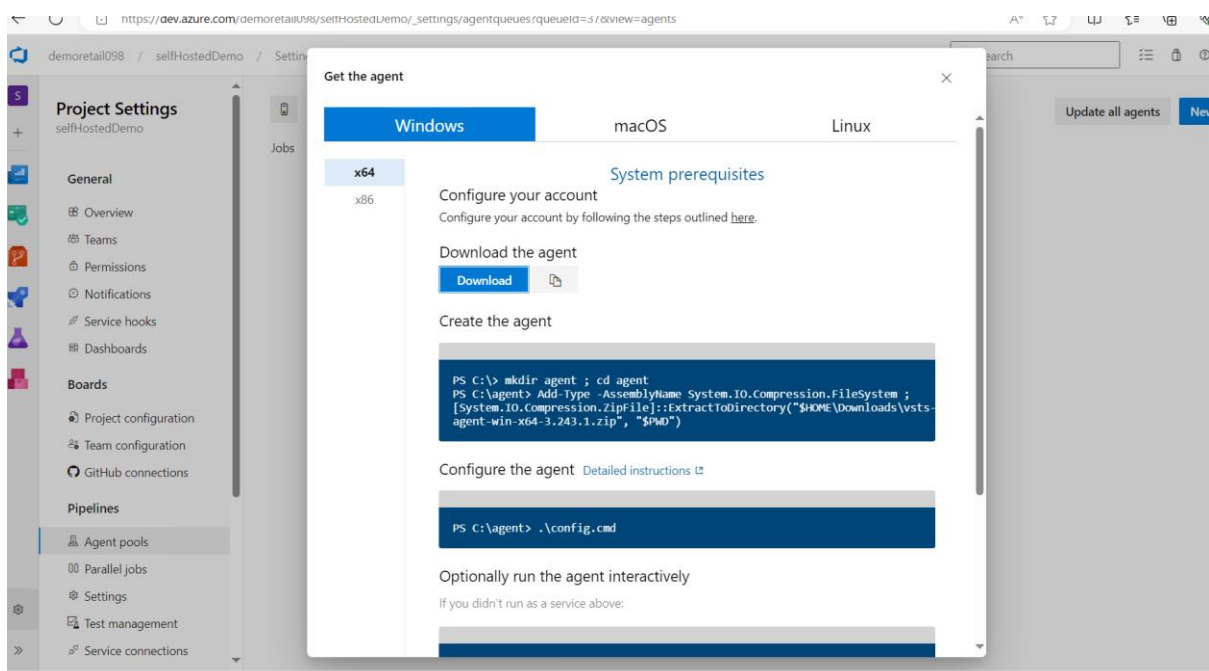
Contents History

Name	Last change	Commits
WebApplication1	14m ago	<a href="#">0d7140bf</a> Add project files. azuser
.gitattributes	14m ago	<a href="#">4f5804b7</a> Add .gitattributes and .gitignore. azuser
.gitignore	14m ago	<a href="#">4f5804b7</a> Add .gitattributes and .gitignore. azuser
WebApplication1.sln	14m ago	<a href="#">0d7140bf</a> Add project files. azuser

Go to Project Settings , navigate to Agent Pools, click on Default



Click on new agent



Download the agent in your VM Environment and run these commands in windows power shell in your vm.

```
Get the agent

Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\azuser> cd agent
PS C:\Users\azuser\agent> Add-Type -AssemblyName System.IO.Compression.FileSystem ; [System.IO.Compression.ZipFile]::ExtractToDirectory("$HOME\Downloads\vsts-agent-win-x64-3.243.1.zip", "$PWD")
PS C:\Users\azuser\agent> .\config.cmd
```

```
Get the agent

Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

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PS C:\Users\azuser\agent> .\config.cmd

          agent v3.243.1          (commit 3bb22cd)

>> Connect:
Enter server URL >
```

Enter Server URL [organization URL ] and click enter for PAT

```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

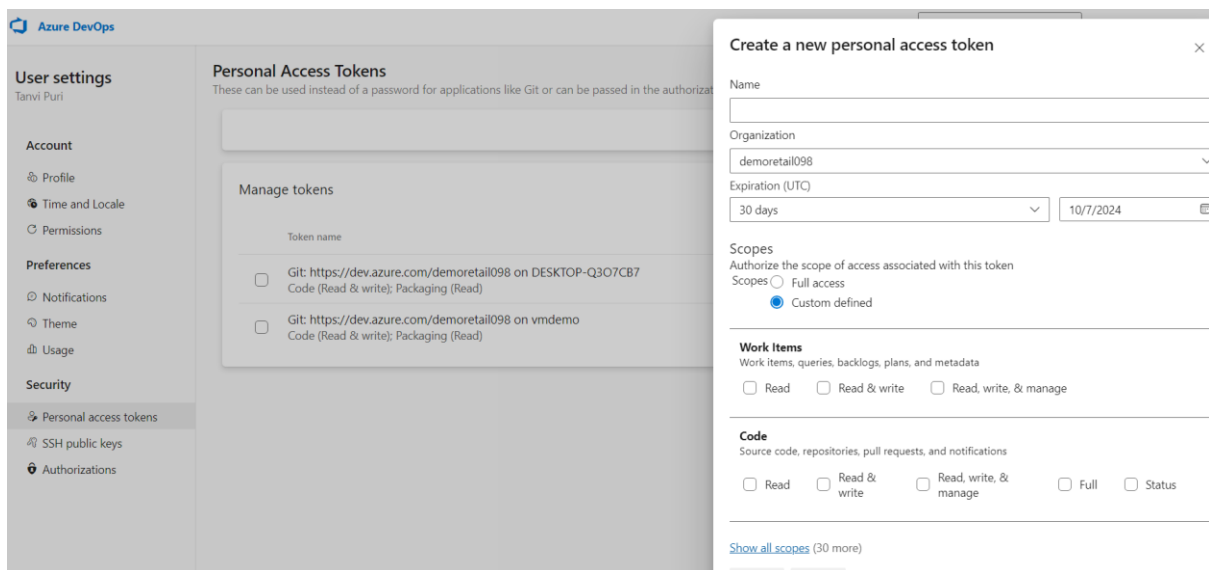
PS C:\Users\azuser> cd agent
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PS C:\Users\azuser\agent> .\config.cmd

          agent v3.243.1          (commit 3bb22cd)

>> Connect:

Enter server URL > https://dev.azure.com/demoretail098/
Enter authentication type (press enter for PAT) >
Enter personal access token >
```

## Generate PAT from Azure DevOps Portal



Under user settings Generate a new token and copy it somewhere else you will not be able to see it further.

applications like Git or can be passed in the authorization

demoretail098 on DESKTOP-Q3O7CB7

g (Read)

demoretail098 on vmdemo

g (Read)

Create a new personal access token

×

Name

newtoken

Organization

demoretail098

▼

Expiration (UTC)

30 days

▼

10/7/2024

📅

Scopes

Authorize the scope of access associated with this token

Scopes ☒ Full access

☐ Custom defined

Create

Cancel

Configure as per the following. Press enter for default values.

```

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows
PS C:\Users\azuser> cd agent
PS C:\Users\azuser\agent> Add-Type -AssemblyName System.IO.Compression.FileSystem ; [System.IO.Compression.ZipFile]::ExtractToDirectory("$HOME\Downloads\vs-agent-win-x64-3.243.1.zip", "$PWD")
PS C:\Users\azuser\agent> .\config.cmd

Azure Pipelines
agent v3.243.1 (commit 3bb22cd)

>> Connect:
Enter server URL > https://dev.azure.com/demoretail098/
Enter authentication type (press enter for PAT) >
Enter personal access token > *****
Connecting to server ...

>> Register Agent:
Enter agent pool (press enter for default) >
Enter agent name (press enter for vmdemo) >
Scanning for tool capabilities.
Connecting to the server.
Successfully added the agent
Testing agent connection.
Enter work folder (press enter for .\work) >
2024-09-07 08:02:32Z: Settings Saved.
Enter run agent as service? (Y/N) (press enter for N) > y
Enter enable SERVICE_SID_TYPE_UNRESTRICTED for agent service (Y/N) (press enter for N) >
Enter user account to use for the service (press enter for MI AUTHORITY\NETWORK SERVICE) >
Granting file permissions to 'MI AUTHORITY\NETWORK SERVICE'.
Service vstsagent.demoretail098.Default.vmdemo successfully installed.
Service vstsagent.demoretail098.Default.vmdemo successfully set recovery option
Service vstsagent.demoretail098.Default.vmdemo successfully set to delayed auto start
Service vstsagent.demoretail098.Default.vmdemo successfully configured
Enter whether to prevent service starting immediately after configuration is finished? (Y/N) (press enter for N) >
Service vstsagent.demoretail098.Default.vmdemo started successfully
PS C:\Users\azuser\agent> .\run.cmd
Scanning for tool capabilities.
Connecting to the server.
2024-09-07 08:03:45Z: Listening for Jobs

```

Observe the status as online

demoretail098 / selfHostedDemo / Settings / Agent pools / Default

Search

### Project Settings

selfHostedDemo

- General
  - Overview
  - Teams
  - Permissions
  - Notifications
  - Service hooks
  - Dashboards
- Boards
  - Project configuration
  - Team configuration
  - GitHub connections

### Default

Update all agents New agent

Jobs Agents Details Security Approvals and checks Analytics

Name	Last run	Current status	Agent version	Enabled
vmdemo ● Online		Idle	3.243.1	<input checked="" type="checkbox"/> On


## Create a Build pipeline

Azure DevOps demoretail098 / selfHostedDemo / Pipelines

Search

selfHostedDemo +

- Overview
- Boards
- Repos
- Pipelines
- Pipelines
- Environments
- Library
- Test Plans
- Artifacts



### Create your first Pipeline

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

Create Pipeline

## Select your Azure Git Repos

Azure DevOps demoretail098 / selfHostedDemo / Pipelines

Connect Select Configure Review

New pipeline

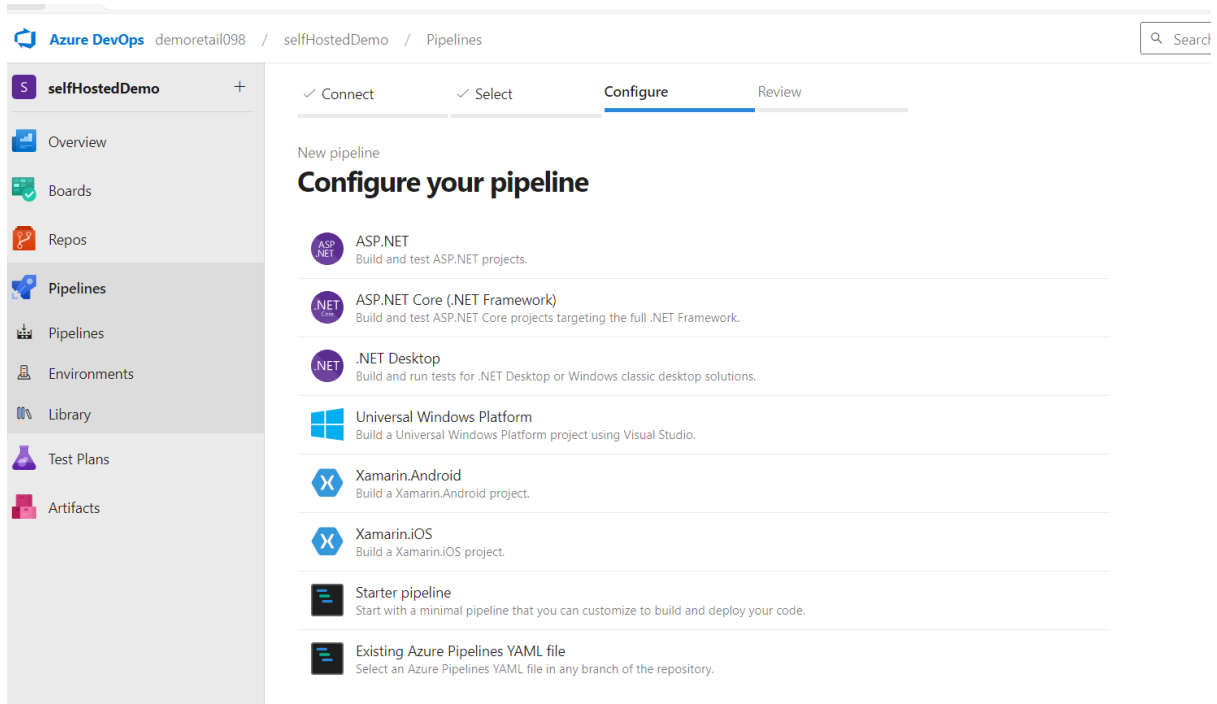
### Select a repository

Filter by keywords selfHostedDemo

selfHostedDemo

## Select ASP.Net Framework



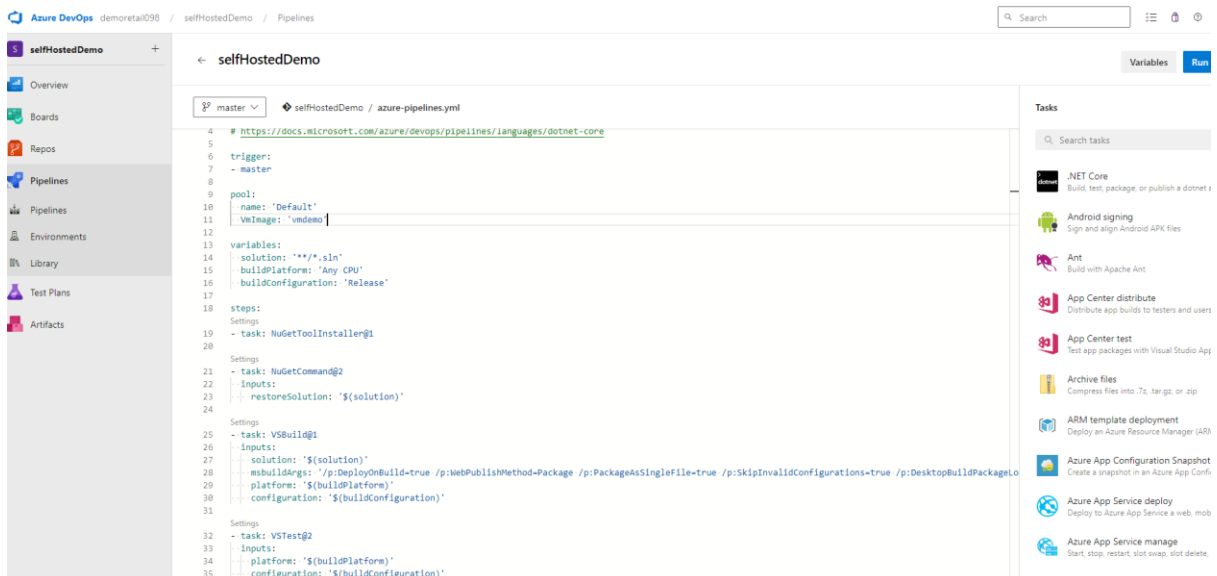


Do changes for pool in YAML Pipeline and rest other keeping as default.

pool:

name: 'Default'

VmImage: 'vmdemo'



Below is the YAML Code

# ASP.NET Core (.NET Framework)

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

# Add steps that publish symbols, save build artifacts, and more:

# <https://docs.microsoft.com/azure/devops/pipelines/languages/dotnet-core>

trigger:

- master

pool:

name: 'Default'

VmImage: 'vmdemo'

variables:

solution: '\*\*/\*.sln'

buildPlatform: 'Any CPU'

buildConfiguration: 'Release'

steps:

- task: NuGetToolInstaller@1

- task: NuGetCommand@2

inputs:

restoreSolution: '\$(solution)'

- task: VSBUILD@1

inputs:

solution: '\$(solution)'

msbuildArgs: '/p:DeployOnBuild=true /p:WebPublishMethod=Package /p:PackageAsSingleFile=true /p:SkipInvalidConfigurations=true /p:DesktopBuildPackageLocation="\$(build.artifactStagingDirectory)\WebApp.zip" /p:DeployIisAppPath="Default Web Site"'

platform: '\$(buildPlatform)'

configuration: '\$(buildConfiguration)'

- task: VSTest@2

inputs:

platform: '\$(buildPlatform)'

configuration: '\$(buildConfiguration)'

Run the Pipeline.

The screenshot displays the Azure DevOps web interface. The left sidebar shows the navigation menu with 'selfHostedDemo' selected. The main area is divided into two panels. The left panel, titled 'Jobs in run #20240907.1', lists the jobs in the pipeline: 'Job' (3m 28s), 'Initialize job' (2m 37s), 'Checkout selfHostedD...' (16s), 'NuGetToolInstaller' (2s), 'NuGetCommand' (10s), 'VSBUILD' (17s), 'VSTest' (1s), 'Post-job: Checkout sel...' (<1s), 'Finalize Job' (<1s), and 'Report build status' (<1s). The right panel, titled 'Finalize Job', shows the log output for this job, which includes steps like 'Starting: Finalize Job', 'Cleaning up task key', 'Start cleaning up orphan processes', 'Terminate orphan process: pid (1260) (VBCSCompiler)', 'Terminate orphan process: pid (10416) (conhost)', and 'Finishing: Finalize Job'.

Jobs in run #20240907.1  
selfHostedDemo

Job	Duration
Job	3m 28s
Initialize job	2m 37s
Checkout selfHostedD...	16s
NuGetToolInstaller	2s
NuGetCommand	10s
VSBUILD	17s
VSTest	1s
Post-job: Checkout sel...	<1s
Finalize Job	<1s
Report build status	<1s

Finalize Job

```
1 Starting: Finalize Job
2 Cleaning up task key
3 Start cleaning up orphan processes.
4 Terminate orphan process: pid (1260) (VBCSCompiler)
5 Terminate orphan process: pid (10416) (conhost)
6 Finishing: Finalize Job
```