

Deploy to App Service using Azure Pipelines Assignment 10

In this project

-I am going to Use Azure DevOps pipelines to automatically deploy my web app to Azure App Service.

-By Using Azure Pipelines I am going to build, test and deploy with continuous integration (CI) and continuous delivery (CD) according to Azure DevOps rules and guidelines.

First thing first I prepared Azure environment by creating Azure Container Registry ACR and Azure App service

Creating Azure container registry

The screenshot displays the Microsoft Azure portal interface for a Container registry named 'azuredevopspipeline'. The left sidebar shows the 'All services' menu with various Azure services listed. The main content area is divided into several sections:

- Overview:** Includes a search bar, 'Move', 'Delete', and 'Update' actions, and a 'JSON View' link.
- Essentials:** Provides key information about the registry:
 - Resource group: [azuredevopspipeline](#)
 - Location: East US 2
 - Subscription: [Azure subscription 1](#)
 - Subscription ID: 97bd5240-6f78-4c57-a1f4-3a595d12831c
 - Login server: [azuredevopspipeline.azurecr.io](#)
 - Creation date: 1/31/2023, 10:10 AM EST
 - SKU: Standard
 - Provisioning state: Succeeded
 - Soft Delete (Preview): Disabled
- Usage:** A bar chart showing storage usage:
 - Included in SKU: 100 GiB
 - Used: 0.00 GiB
 - Additional storage: 0.00 GiB
- ACR Tasks:** A section titled 'Build, Run, Push and Patch containers in Azure with ACR Tasks. Tasks supports Windows, Linux and ARM with QEMU.' with a 'Learn more' link.
- Container security integrations:** A section for 'Microsoft Defender for Cloud' with a 'Learn more' link.

Azure Web App

The image shows two screenshots of the Azure portal interface. The top screenshot is the 'Create Web App' wizard, and the bottom screenshot is the 'Overview' page of a newly created web app.

Top Screenshot: Create Web App Wizard

- Navigation:** Home > App Services > Create Web App
- Tabs:** Basics, Deployment, Networking, Monitoring, Tags, Review + create
- Project Details:**
 - Subscription: Azure subscription 1
 - Resource Group: (New) Resource group (with a 'Create new' link)
- Instance Details:**
 - Need a database? Try the new Web + Database experience.
 - Name: Web App name. (suffix: .azurewebsites.net)
 - Publish: ☒ Code, ☐ Docker Container, ☐ Static Web App
 - Runtime stack: Select a runtime stack
 - Operating System: ☒ Linux, ☐ Windows
 - Region: East US (with a note: 'Not finding your App Service Plan? Try a different region or select your App Service Environment.'
- Buttons:** Review + create, < Previous, Next : Deployment >

Bottom Screenshot: Microsoft.Web-WebApp-Portal-a465ce41-819a | Overview

- Navigation:** Home > Microsoft.Web-WebApp-Portal-a465ce41-819a | Overview
- Actions:** Delete, Cancel, Redeploy, Download, Refresh
- Overview:**
 - Inputs
 - Outputs
 - Template
- Status:** Your deployment is complete
- Deployment details:**
 - Deployment name: Microsoft.Web-...
 - Subscription: Azure subscription 1
 - Resource group: azuredevopspipel...
 - Start time: 1/31/2023, 10:18:25 AM
 - Correlation ID: 42b1f754-Sae1-434a
- Next steps:**
 - Manage deployments for your app. Recommended
 - Protect your app with authentication. Recommended
- Buttons:** Go to resource
- Give feedback:** Tell us about your experience with deployment
- Cost Management:** Get notified to stay within your budget and prevent unexpected charges on your bill. Set up cost alerts >
- Microsoft Defender for Cloud:** Secure your apps and infrastructure. Go to Microsoft Defender for Cloud >
- Free Microsoft tutorials:** Start learning today >
- Work with an expert:** Azure experts are service provider partners who can help manage your assets on Azure and be your first line of support. Find an Azure expert >

App Service Plans

Microsoft Azure

Search resources, services, and docs (G+J)

nurgulozturk@deop.ca
DEOP.CA (DEOP.CA)

Home >

App Service plans

deop.ca (deop.ca)

+ Create Manage view Refresh Export to CSV Open query Assign tags

Filter for any field... Subscription equals all Resource group equals all Location equals all Add filter

No grouping List view

Name	Location	Operating System	Apps	Pricing Tier	Resource group	Subscription
ASP-azuredevopsipelines...	East US 2	Linux	1	Free (F1: 1)	azuredevopsipelines	Azure subscription 1

< Previous Page 1 of 1 Next > Showing 1 to 1 of 1 records.

Give feedback

Setting Up CI with Azure pipelines

dev.azure.com/nurgulozturk/azure-devops-pipeline-tetris/_build/results?build...

nurguloz/Azure-Devops-Pipeline-tetris azuredevopsipeline - Microsoft Azure My Information nurguloz/Azure-Devops-Pipeline-tetris Pipelines - Run 20230131.1

Azure DevOps / azure-devops-pipeline-tetris / Pipelines / nurguloz.Azure-Devops-Pi... / 20230131.1

#20230131.1 • Set up CI with Azure Pipelines

nurguloz.Azure-Devops-Pipeline-tetris (1)

Cancel

Summary

Triggered by nurguloz View change

Repository and version	Time started and elapsed	Related	Tests and coverage
nurguloz/Azure-Devops-Pipeline-tetris	Just now	0 work items	Get started
master 0c377080	-	0 artifacts	

Jobs

Name	Status	Duration
Build	Queued	

Project settings

Jobs in Run

azure-devops-pipelin...

Overview

Boards

Repos

Pipelines

Pipelines

Environments

Releases

Library

Task groups

Deployment groups

Test Plans

Artifacts

Project settings

Jobs in run #2023...

nurguloz.Azure-Devops-Pipeline-tetris (1)

Build and push stage

Build

12s

Initialize job

1s

Checkout nurgu...

2s

Build and push ...

8s

Post-job: Checkou...

Build and push an image to container registry

```
139      "sha256:7e7121bf183a9d6c7623520cdf2c1d58da671d201ed13a21525574f8522d32d",
140      "sha256:8477a329ab95b790e1d4be0ff5761a85f39a7344cb45fb8e3f35442155c05945",
141      "sha256:ff1154af28db5b3a94015268111cc49d5dd3fe7370cf2e328425d3d99f12bdb8",
142      "sha256:049fd3bdb25d6b2c8e821db681c0ade756f03f14a1966fb7fc17f208065dce6b",
143      "sha256:80115eeb30bc12d360f0e102c2ef98176079305e9a1f99074093e1965cd23511"
144    ]
145  },
146  "Metadata": {
147    "LastTagTime": "0001-01-01T00:00:00Z"
148  }
149 }
150 ]
151 /usr/bin/docker build -f /home/vsts/work/1/s/Dockerfile --label com.azure.dev.image.system.teamfo
152 Sending build context to Docker daemon 2.038MB
153
154 Step 1/13 : FROM nginx
155 --> a99a39d070bf
156 Step 2/13 : COPY . /usr/share/nginx/html/
157 --> 114b21742da9
158 Step 3/13 : LABEL com.azure.dev.image.build.buildnumber=20230131.1
159 --> Running in ddb6497f9771
160 Removing intermediate container ddb6497f9771
161 --> 7775b8fe2998
162 Step 4/13 : LABEL com.azure.dev.image.build.builduri=vstfs:///Build/Build/11
163 --> Running in a465002ec701
164 Removing intermediate container a465002ec701
165 --> d1b22dc709d
166 Step 5/13 : LABEL com.azure.dev.image.build.definitionname=nurguloz.Azure-Devops-Pipeline-tetris (
167 --> Running in c8cf18911e44
168 Removing intermediate container c8cf18911e44
169 --> a85832afa378
170 Step 6/13 : LABEL com.azure.dev.image.build.repository.name=nurguloz/Azure-Devops-Pipeline-tetris
171 --> Running in 9fe24b82a59e
```

Finalized jobs

most used

<

>

dev.azure.com/nurgulozturk/azure-devops-pipeline-tetris/_build/results?build=

nurguloz/Azure-Devops-Pipeline-tetris

azuredevops-pipeline - Microsoft Azure

My Information

nurguloz/Azure-Devops-Pipeline-tetris

Pipelines - Run 20230131.1 logs

azure-devops-pipelin...

Overview

Boards

Repos

Pipelines

Pipelines

Environments

Releases

Library

Task groups

Deployment groups

Test Plans

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Project settings

Jobs in run #2023...

nurguloz.Azure-Devops-Pipeline-tetris (1)

Build and push stage

Build

29s

Initialize job

1s

Checkout nurgu...

2s

Build and pus...

23s

Post-job: Chec...

<1s

Finalize Job

<1s

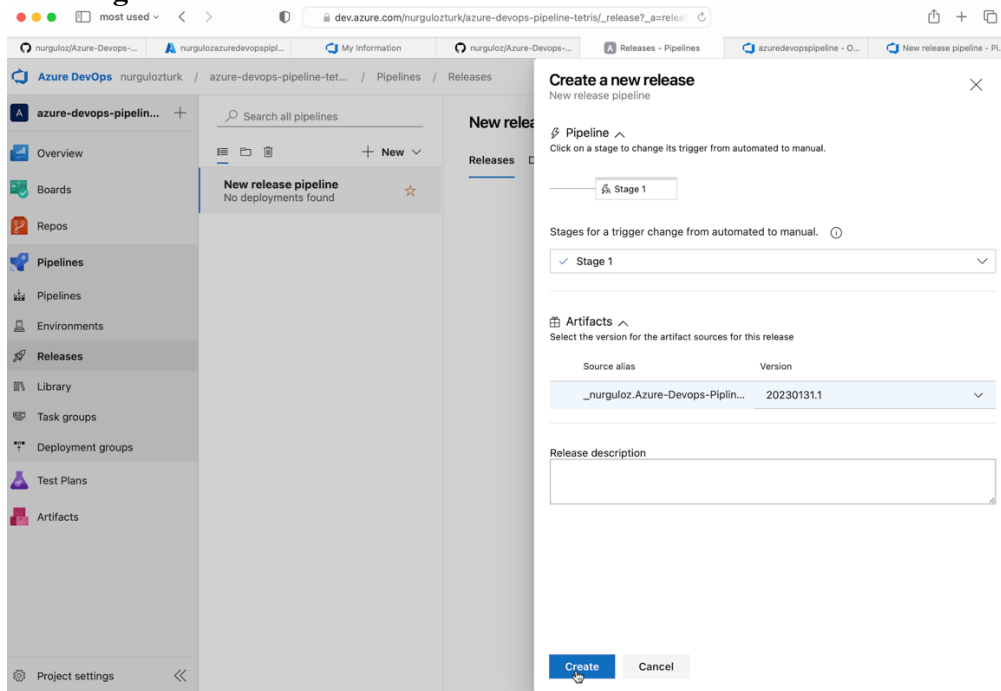
Build

View raw log

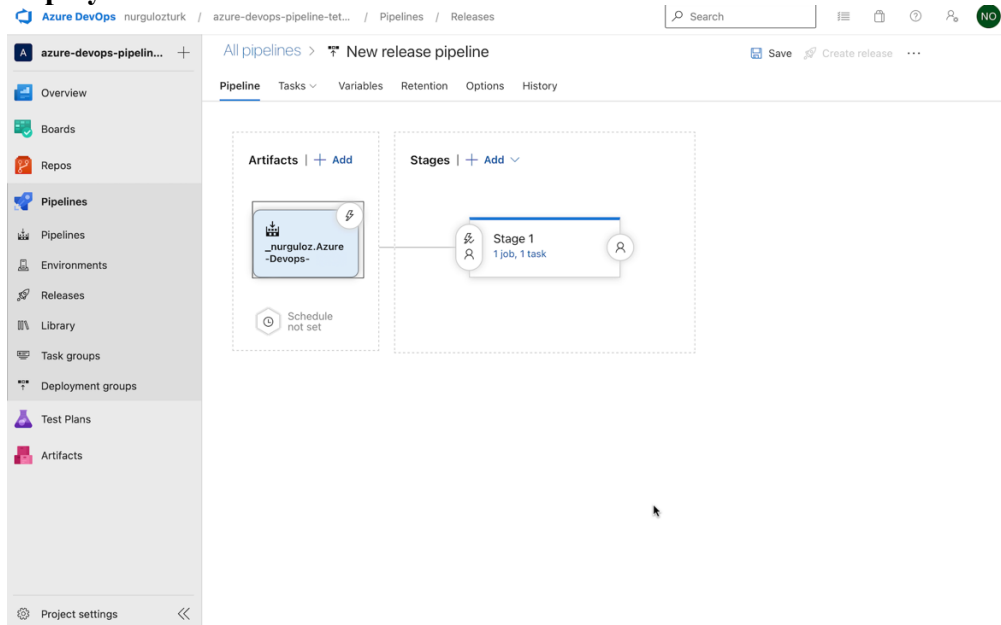
```
1 Pool: Azure Pipelines
2 Image: ubuntu-latest
3 Agent: Hosted Agent
4 Started: Just now
5 Duration: 29s
6
7 Job preparation parameters
8 Job live console data:
9 Finishing: Build
```

Releases in Azure Pipeline (Assignment 11)

Creating New Releases



Deployment Process



Running on Agent

The screenshot displays the Azure DevOps web interface. The left sidebar shows the navigation menu with options like Overview, Boards, Repos, Pipelines, Environments, Releases, Library, Task groups, Deployment groups, Test Plans, and Artifacts. The main area shows the 'New release pipeline' view for 'Release-1', Stage 1, which is marked as 'Succeeded'. The 'Deployment process' section shows 'Run on agent' as 'Succeeded'. The 'Run on agent' section provides details about the deployment, including the pool 'Hosted Windows 2019 with...' and the agent 'Hosted Agent'. A table lists the tasks and their durations:

Task	Status	Duration
Initialize job	succeeded	3s
Deploy Azure App Service	succeeded	1m 20s
Finalize Job	succeeded	<1s

App service deployment

The screenshot shows the 'Select a template' dialog in the Azure DevOps interface. The dialog is titled 'Select a template' and includes a search bar. It lists several featured templates for deployment to Azure App Service:

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

There is also an 'Others' section at the bottom with the template:

- Azure App Service deployment with continuous monitoring**: Deploy your Web applications to Azure App Service and...

most used

dev.azure.com/nurgulozturk/azure-devops-pipeline-tetris/_releaseDefinition/

nurguloz/Azure-Devops-...

nurgulozazuredevopsipl...

My Information

nurguloz/Azure-Devops-...

New release pipeline - Pl...

azuredvopspipeline - O...

New release pipeline - Pl...

Azure DevOps

nurgulozturk / azure-devops-pipeline-tetris / Pipelines / Releases

Search

Save Create release

azure-devops-pipelin...

All pipelines > New release pipeline

Pipeline Tasks Variables Retention Options History

Stage 1

Deployment process

Run on agent

Deploy Azure App Service

Stage name

Stage 1

Parameters

Azure subscription

Azure subscription 1 (97bd5240-6f78-4c57-a1f4-3a595d12)

App type

Web App for Containers (Linux)

App service name

nurgulozturk

Registry or Namespace

azuredvopspipeline.azurecr.io

Repository

nurgulozazuredevopsiplinetetris

Startup command

Overview

Boards

Repos

Pipelines

Pipelines

Environments

Releases

Library

Task groups

Deployment groups

Test Plans

Artifacts

Project settings

Tetris game

