Azure DevOps Create CI-Build ACR and CD-Release ACI Pipeline

# Use CI (Continuous Integration) Building Pipeline to create the docker image and push to Azure Docker Registry (ACR)

* Create CI pipeline 🡪 Pipelines 🡪 create Pipeline 🡪 Azure Repos Git (Where is your code?) 🡪 AspNetCoreSample (Select a repository) 🡪 ASP.NET Core (.NET Framework) (Configure your pipeline) 🡪 Review your pipeline YAML (Review your pipeline YAML)
* If you just Run the pipeline there will be an error, need to create an agent first.
* Go to Project Settings 🡪 Pipelines 🡪 Agent pools 🡪 Default 🡪 New agent 🡪 Windows (x64) 🡪 follow the instructions on the popup

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* Get Personal Access Tokens

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* Config the agent

Text

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Text

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* Run the agent

A screenshot of a computer

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## Create Build (CI) Pipeline

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This will create the CI YAML file

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## Create a Build Agent

* Create a new Pipeline 🡪 default pipeline for build

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* Then delete the VS Test part task and add the Docker task

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Graphical user interface, application, table

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## Run the CI (Build) Pipeline

* Run Docker Windows Desktop first
* Then run CI (Build) pipeline

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* Check Build Agent activity

Text

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* Check Azure Container Registry

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Working!!

# Use CD (Continuous Delivery) Release Pipeline to deploy docker image from ACR to ACI (Azure Container Instance)

* Create ARM (Azure Resource Manager) for ACR (Azure Container Registry)

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A picture containing graphical user interface

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Graphical user interface, application

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Graphical user interface, application

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* Create CD (Release) Pipeline
* Create Artifact - either Build (build artifact is the output of the build which is the image deployed to Azure Container Registry ) or Azure Container Registry will work

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Graphical user interface, text

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Graphical user interface, text, application, email

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A picture containing diagram

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The Source Type of “Service connection” drop down is Resource Manager and that is the reason why we need to create it!!

* Create Task

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* Here is the settings of Azure CLI Task:

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Here is the Inline Script:

|  |
| --- |
| az container create `  --name $(aciname) `  --resource-group $(resourcegroup) `  --image $(acrloginserver)/$(imagename):$(Build.BuildId) `  --registry-login-server $(acrloginserver) `  --registry-username $(acrusername) `  --registry-password $(acrpassword) `  --dns-name-label $(dnslabel) |

* Variables

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Here are the variables:

|  |
| --- |
| aciname = “cicdsandbox”  acrloginserver = “johnli.azurecr.io”  acrpassword = “X7mUi59i+0p+7wY31TBVbfi9K+AYyJlx”  acrusername = “johnli”  dnslabel = “cicdsandbox”  imagename = “cicdsandbox"  resourcegroup = “DefaultResourceGroup-CUS” |

* Deploy

Graphical user interface, application

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* Check Azure Container Instance

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Graphical user interface, text, application, email

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* Browser to FQDN:

[Home page - WebAppDockerTest (wwwacidemo.eastus.azurecontainer.io)](http://wwwacidemo.eastus.azurecontainer.io/)

Graphical user interface, text, application, email

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Working!!

* And this CICD build for Azure Container can be deploy multiple times, it just upgraded the previous Container Registry and Container Instance.