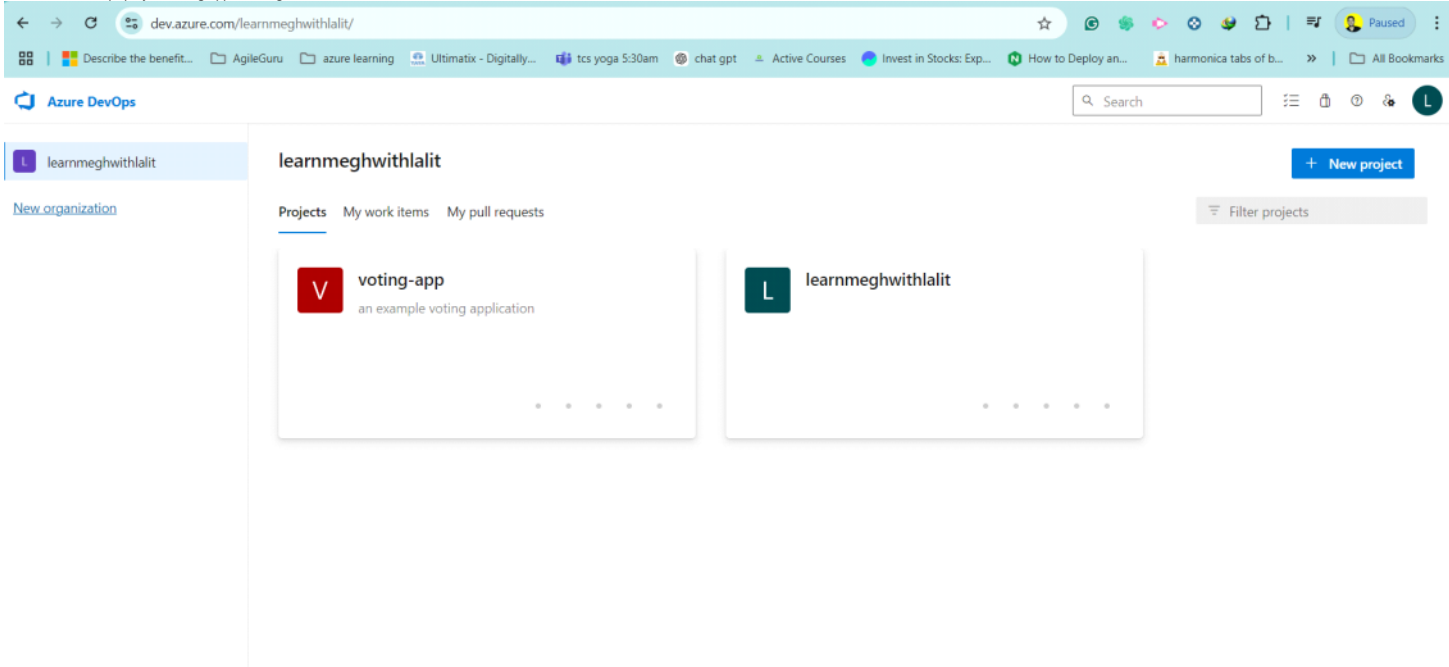


Devops project

14 October 2024 09:09

1. Create Azure devops project Voting App in an organisation



2. Import repository from github voting app

3. Create Vote service pipeline

We can use template of pipeline for various processes like in this case we have used build and push image to container registry template .

```
# Docker
# Build and push an image to Azure Container Registry
# https://docs.microsoft.com/azure/devops/pipelines/languages/docker
trigger:
  paths:
    include:
      - vote/*
resources:
  - repo: self
variables:
  # Container registry service connection established during pipeline creation
  dockerRegistryServiceConnection: '28cb4dde-cb8c-48b6-a3b7-5d5eb9d54972'
  imageRepository: 'votingapp'
  containerRegistry: 'lalitazureicd.azurecr.io'
  dockerfilePath: '$(Build.SourcesDirectory)/vote/Dockerfile'
  tag: '$(Build.BuildId)'
  # Agent VM image name
pool:
  name: 'azureagent'
stages:
- stage: Build
  displayName: Build
  jobs:
  - job: Build
    displayName: Build
    steps:
    - task: Docker@2
      displayName: Build
      inputs:
        containerRegistry: '$(dockerRegistryServiceConnection)'
        repository: '$(imageRepository)'
        command: 'build'
        Dockerfile: 'vote/Dockerfile'
        tags: '$(tag)'
- stage: Push
  displayName: Push
  jobs:
  - job: Push
    displayName: Push to ACR
    steps:
    - task: Docker@2
      displayName: Push
      inputs:
        containerRegistry: '$(dockerRegistryServiceConnection)'
        repository: '$(imageRepository)'
        command: 'push'
        tags: '$(tag)'
- stage: Update
  displayName: Update
  jobs:
  - job: Update
    displayName: Update
    steps:
    # Step 1: Convert script line endings to Unix format using dos2unix
    - script: |
        dos2unix scripts/updateK8sManifests.sh
      displayName: 'Convert script line endings to Unix format'
    # Step 2: Run the shell script
    - task: ShellScript@2
      inputs:
        scriptPath: 'scripts/updateK8sManifests.sh'
        args: 'vote $(imageRepository) $(tag)'
      displayName: "Run updateK8sManifests.sh"
```

3. Then result service pipeline

```
# Docker
# Build and push an image to Azure Container Registry
# https://docs.microsoft.com/azure/devops/pipelines/languages/docker
trigger:
  paths:
    include:
      - result/*
resources:
  - repo: self
variables:
  # Container registry service connection established during pipeline creation
  dockerRegistryServiceConnection: '88b48a0f-d48f-4080-9597-315920d9e10b'
  imageRepository: 'resultapp'
  containerRegistry: 'lalitazureicd.azurecr.io'
  dockerfilePath: '$(Build.SourcesDirectory)/result/Dockerfile'
  tag: '$(Build.BuildId)'
  # Agent VM image name
pool:
  name: 'azureagent'
stages:
- stage: Build
```

```

displayName: Build
jobs:
- job: Build
  displayName: Build
  steps:
  - task: Docker@2
    displayName: Build
    inputs:
      containerRegistry: '${(dockerRegistryServiceConnection)}'
      repository: '${(imageRepository)}'
      command: 'build'
      Dockerfile: 'result/Dockerfile'
      tags: '${(tag)}'
- stage: Push
  displayName: push stage
  jobs:
  - job: Push
    displayName: Push
    steps:
    - task: Docker@2
      displayName: Push
      inputs:
        containerRegistry: '${(dockerRegistryServiceConnection)}'
        repository: '${(imageRepository)}'
        command: 'push'
        tags: '${(tag)}'
- stage: Update
  displayName: Update
  jobs:
  - job: Update
    displayName: Update
    steps:
    # Step 1: Convert script line endings to Unix format using dos2unix
    - script: |
        dos2unix scripts/updateK8sManifests.sh
      displayName: 'Convert script line endings to Unix format'
    # Step 2: Run the shell script
    - task: ShellScript@2
      inputs:
        scriptPath: 'scripts/updateK8sManifests.sh'
        args: 'result ${imageRepository} ${tag}'
      displayName: "Run updateK8sManifests.sh"

```

4. Worker service pipeline:

```

# Docker
# Build and push an image to Azure Container Registry
# https://docs.microsoft.com/azure/devops/pipelines/languages/docker
trigger:
  paths:
    include:
      - worker/*
resources:
  - repo: self
variables:
  # Container registry service connection established during pipeline creation
  dockerRegistryServiceConnection: '3e0fc8dc-a937-4d87-aa4d-67885139ecd6'
  imageRepository: 'workerapp'
  containerRegistry: 'lalityazureciad.azurecr.io'
  dockerFilePath: '${(Build.SourcesDirectory)}/worker/Dockerfile'
  tag: '${(Build.BuildId)}'
  # Agent VM image name
pool:
  name: 'azureagent'
stages:
- stage: Build
  displayName: Build
  jobs:
  - job: Build
    displayName: Build
    steps:
    - task: Docker@2
      displayName: Build
      inputs:
        containerRegistry: '${(dockerRegistryServiceConnection)}'
        repository: '${(imageRepository)}'
        command: 'build'
        Dockerfile: 'worker/Dockerfile'
        tags: '${(tag)}'
- stage: Push
  displayName: Push
  jobs:
  - job: Push
    displayName: Push
    steps:
    - task: Docker@2
      displayName: Push
      inputs:
        containerRegistry: '${(dockerRegistryServiceConnection)}'
        repository: '${(imageRepository)}'
        command: 'push'
        tags: '${(tag)}'
- stage: Update
  displayName: Update
  jobs:
  - job: Update
    displayName: Update
    steps:
    # Step 1: Convert script line endings to Unix format using dos2unix
    - script: |
        dos2unix scripts/updateK8sManifests.sh
      displayName: 'Convert script line endings to Unix format'
    # Step 2: Run the shell script
    - task: ShellScript@2
      inputs:
        scriptPath: 'scripts/updateK8sManifests.sh'
        args: 'worker ${imageRepository} ${tag}'
      displayName: "Run updateK8sManifests.sh"

```

5. Create a VM for running azure pipeline build (agent pool in azure devops terminology), preferably ubuntu image

Install docker.io after update it

Then adding azureuser to docker group.

bash

Copy code

sudo usermod -aG docker azureuser

This command:

- Uses sudo to run as a superuser.
- usermod is used to modify the user account.
- The -aG flag appends (-a) the user to the group (-G) without removing them from other groups.
- docker is the group you are adding the user to.
- azureuser is the user being added to the group.

Why add azureuser to the Docker group?

- By adding azureuser to the docker group, you allow that user to run Docker commands without needing to use sudo each time.
- Normally, Docker requires superuser privileges to run, so this is a common practice to streamline workflows.

6. Connecting agent to azure devops pipeline

learnmeghwithalalit / voting-app / Settings / Agent pools

Search

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Agent pools

Security **Add pool**

Name	Queued jobs	Running jobs
Azure Pipelines Azure Pipelines		
azureagent learnmeghwithalalit		
Default Azure Pipelines		

learnmeghwithalalit / voting-app / Settings / Agent pools / azureagent

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azureagent

Update all agents New agent

Jobs **Agents** Details Security Approvals and checks Analytics

Name	Last run	Current status	Agent version	Enabled
azureagent Online	52m ago	Idle	3.245.0	<input checked="" type="checkbox"/> On

learnmeghwithalalit / voting-app / Settings

Project Settings
voting-app

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 - Overview
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Get the agent

Windows macOS **Linux**

x64

- arm
- arm64
- RHEL6

System prerequisites

Configure your account
Configure your account by following the steps outlined here.

Download the agent
Download

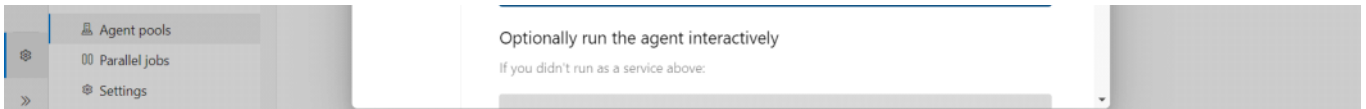
Create the agent

```
~/ $ mkdir myagent && cd myagent  
~/myagent$ tar zxvf ~/Downloads/vsts-agent-linux-x64-3.245.0.tar.gz
```

Configure the agent [Detailed instructions](#)

```
~/myagent$ ./config.sh
```

Optionally run the agent interactively
If you didn't run as a service above:



Don't just copy the command `~/S` you will get error , just do it one by one like creating myagent directory and cd into it and then doing wget download link

<https://vstsagentpackage.azureedge.net/agent/3.245.0/vsts-agent-linux-x64-3.245.0.tar.gz>

Then

```
tar xvf ~/Downloads/vsts-agent-linux-x64-3.245.0.tar.gz
```

Then

```
./config.sh
```

Then

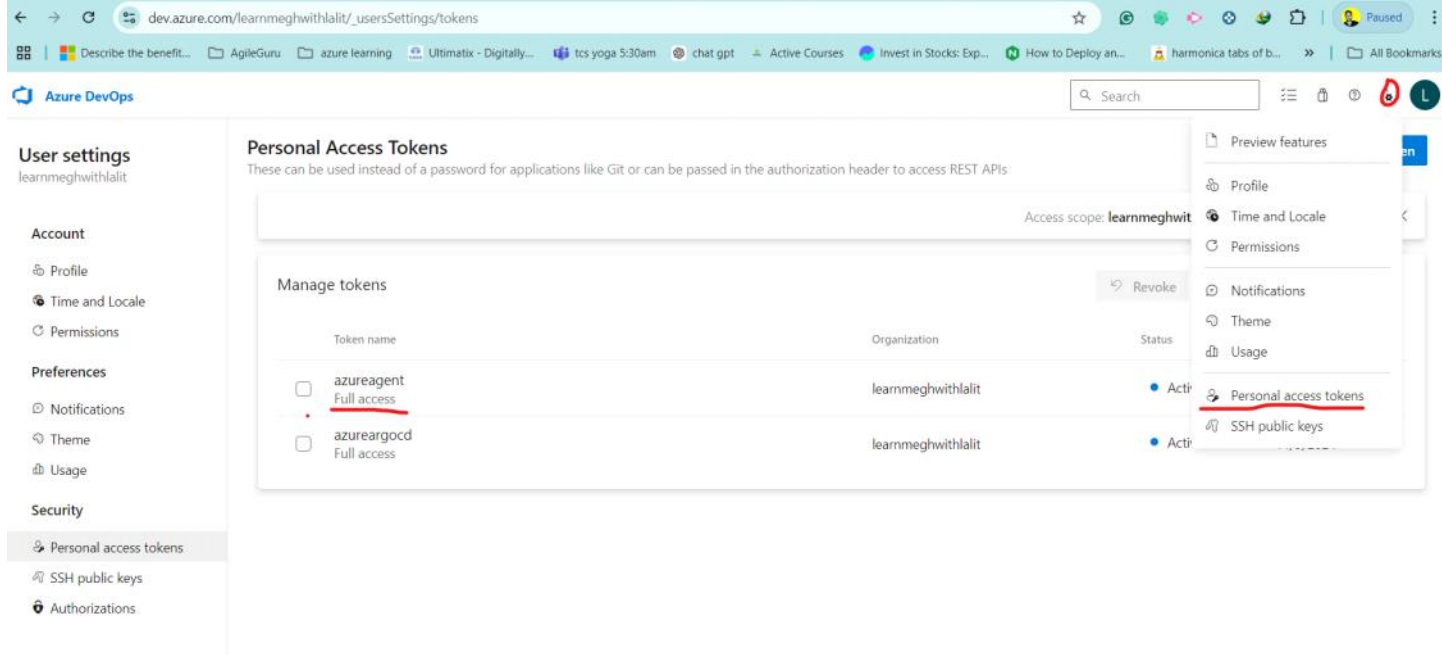
```
./run.sh
```

to make the agent online or run the agent .

We can use git bash also to connect to a VM , just download the ssh key and then in git bash

```
ssh -i azureagent_key1.pem azureuser@20.235.243.196 (external ip of vm)
```

It will ask for PAT (Personal Access Tokens) create one token in Azure DevOps with required access full or custom.



You can see build being executed with steps.

```
azureuser@azureagent:~/myagent$ ./run.sh
total 142968
drwxr-xr-x 6 azureuser azureuser 4096 Oct 10 07:08 ./
drwxr-xr-x 5 azureuser azureuser 4096 Oct 10 04:11 ../
-rw-rw-r-- 1 azureuser azureuser 204 Oct 10 06:36 .agent
-rw-rw-r-- 1 azureuser azureuser 284 Oct 10 06:36 .credentials
-rw-rw-r-- 1 azureuser azureuser 1709 Oct 10 06:35 .credentials_rsaparams
-rw-rw-r-- 1 azureuser azureuser 13 Oct 10 06:32 .env
-rw-rw-r-- 1 azureuser azureuser 99 Oct 10 06:48 .path
drwxr-xr-x 3 azureuser azureuser 4096 Oct 11 06:30 _diag/
drwxr-xr-x 9 azureuser azureuser 4096 Oct 10 07:49 _work/
drwxr-xr-x 26 azureuser azureuser 20480 Sep 24 09:43 bin/
-rwxr-xr-x 1 azureuser azureuser 3173 Sep 24 09:36 config.sh*
-rwxr-xr-x 1 azureuser azureuser 726 Sep 24 09:36 env.sh*
drwxr-xr-x 7 azureuser azureuser 4096 Sep 24 09:37 externals/
-rw-rw-r-- 1 azureuser azureuser 9465 Sep 24 09:36 license.html
-rw-rw-r-- 1 azureuser azureuser 3170 Sep 24 09:36 reauth.sh
-rw-rw-r-- 1 azureuser azureuser 2753 Sep 24 09:36 run-docker.sh
-rwxr-xr-x 1 azureuser azureuser 2014 Sep 24 09:36 run.sh*
-rwxr-xr-x 1 azureuser azureuser 4621 Oct 10 06:36 svc.sh*
-rw-rw-r-- 1 azureuser azureuser 146294297 Sep 24 10:53 vsts-agent-linux-x64-3.245.0.tar.gz
azureuser@azureagent:~/myagent$ cd ./r
```

```
azureuser@azureagent:~/myagent$ ./run.sh
Connecting to the server.
Scanning for tool capabilities.
2024-10-14 02:29:41Z: Listening for Jobs
2024-10-14 02:37:43Z: Running job: Build
2024-10-14 02:38:12Z: Job Build completed with result: Succeeded
2024-10-14 02:38:15Z: Running job: Build
2024-10-14 02:38:44Z: Job Build completed with result: Succeeded
2024-10-14 02:38:45Z: Running job: Push
2024-10-14 02:39:10Z: Job Push completed with result: Succeeded
2024-10-14 02:39:13Z: Running job: Push
2024-10-14 02:39:37Z: Job Push completed with result: Succeeded
2024-10-14 02:39:39Z: Running job: Update
2024-10-14 02:39:50Z: Job Update completed with result: Succeeded
2024-10-14 02:39:52Z: Running job: Update
2024-10-14 02:40:16Z: Job Update completed with result: Succeeded
2024-10-14 02:56:01Z: Running job: Build
2024-10-14 02:56:30Z: Job Build completed with result: Succeeded
2024-10-14 02:56:32Z: Running job: Build
2024-10-14 02:56:59Z: Job Build completed with result: Succeeded
2024-10-14 02:57:01Z: Running job: Push
2024-10-14 02:57:29Z: Job Push completed with result: Succeeded
2024-10-14 02:57:32Z: Running job: Push
2024-10-14 02:57:55Z: Job Push completed with result: Succeeded
2024-10-14 02:57:58Z: Running job: Build
2024-10-14 02:58:25Z: Job Build completed with result: Succeeded
2024-10-14 02:58:27Z: Running job: Update
2024-10-14 02:58:46Z: Job Update completed with result: Succeeded
2024-10-14 02:58:47Z: Running job: Update
2024-10-14 02:59:02Z: Job Update completed with result: Succeeded
2024-10-14 02:59:07Z: Running job: Push to ACR
2024-10-14 02:59:31Z: Job Push to ACR completed with result: Succeeded
2024-10-14 02:59:35Z: Running job: Update
2024-10-14 02:59:52Z: Job Update completed with result: Succeeded
```

Type logout in git bash you will exit the vm and vm will become offline.

```

Commands I executed in VM:
Last login: Mon Oct 14 02:29:17 2024 from 103.248.94.197
azureuser@azureagent:~$ history
 1 sudo su
 2 mkdir myagent && cd myagent
 3 tar xzvf ~/Downloads/vsts-agent-linux-x64-3.245.0.tar.gz
 4 wget tar xzvf ~/Downloads/vsts-agent-linux-x64-3.245.0.tar.gz
 5 ls
 6 cd myagent/
 7 ls
 8 wget https://vstsagentpackage.azureedge.net/agent/3.245.0/vsts-agent-linux-x64-3.245.0.tar.gz
 9 ls
10 tar xzvf ~/Downloads/vsts-agent-linux-x64-3.245.0.tar.gz
11 tar xzvf vsts-agent-linux-x64-3.245.0.tar.gz
12 sudo apt update
13 ls
14 ./config.sh
15 ls
16 ./run.sh
17 sudo install docker.io
18 sudo apt install docker.io
19 sudo usermod -aG docker azureuser
20 systemctl restart docker
21 sudo systemctl restart docker
22 ./run.sh
23 ls
24 ./config.sh
25 ./ru
26 ./run.sh
27 docker status
28 sudo systemctl status docker
29 sudo systemctl restart docker
30 ./run.sh
31 history
32 sudo usermod -aG docker azureuser
33 sudo systemctl restart docker
34 logout
35 cd myagent/
36 ls
37 ./run.sh
38 logout
39 cd myagent/
40 ls
41 ./run.sh
42 cd myagent/
43 ls
44 ./run.sh
45 sudo apt update
46 ./run.sh
47 sudo apt-get install dos2unix
48 ./run.sh
49 dos2unix scripts/updateK8sManifests.sh
50 ./run.sh
51 logout
52 cd myagent/
53 ls
54 ./run.sh
55 ls
56 cd bin
57 ls
58 ls -ltr
59 cd docker
60 ccd
61 cd
62 cd /usr/bin/docker
63 cd /usr
64 cd bin
65 cd docker
66 cd
67 cd myagent/
68 ./run.sh
69 ./run.sh
70 cd myagent/
71 ./run.sh
72 cd myagent/
73 ll
74 cd ./r
75 ./run.sh
76 logout
77 history

```

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Container registry

Refresh

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Access control (IAM)

Tags

Quick start

Events

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Tasks

Connected registries (Preview)

Cache

Repository permissions

Policies

New to ACR, Artifact streaming helps pull images faster from AKS clusters. The 'Artifact streaming status' column shows which repositories are using this feature. [Learn more](#)

Repositories ↑↓

resultapp

votingapp

workerapp

votingapp

Repository

Refresh

Start artifact streaming

Manage deleted artifacts

Delete repository

Essentials

Repository

votingapp

Tag count

21

Last updated date

10/14/2024, 8:29 AM GMT+5:30

Manifest count

21

Tags ↑↓	Digest ↑↓	Last modified
42	sha256:495ac5967eb74966448fca6b2373de40e...	10/14/2024, 8:29 AM GMT+5:30
37	sha256:fe2b88e8ee1041ac856ad9e2a3a93d343...	10/11/2024, 12:00 PM GMT+5:30
36	sha256:5a25c89058924a161b900f3670a599e5c...	10/11/2024, 11:51 AM GMT+5:30
35	sha256:2805409c50c6f353b2bf29627cccc29ec7...	10/11/2024, 10:44 AM GMT+5:30
34	sha256:40a35c027f1459f2cc24c561c5db3e835...	10/11/2024, 10:04 AM GMT+5:30
33	sha256:75aafa277240df1a5fa93b416117081b8...	10/11/2024, 9:50 AM GMT+5:30
30	sha256:700e007262e1efcfd943f5d3fb34a4334...	10/11/2024, 9:36 AM GMT+5:30
29	sha256:ad8e5f375fe3d9f79f961f48dbda23211d...	10/11/2024, 9:31 AM GMT+5:30
28	sha256:3bf4599bada45594cb5c08e02652d1e3...	10/11/2024, 9:25 AM GMT+5:30
27	sha256:4eac647ced29932de4c73d0793dee89e...	10/11/2024, 9:18 AM GMT+5:30

votingapp

Repository

Refresh ...

Essentials

Repository

votingapp

Last updated date

10/14/2024, 8:29 AM GMT+5:30

Tag count

21

Manifest count

21

Search to filter tags ...

Tags ↑↓	Digest ↑↓
42	sha256:495ac5967
37	sha256:fe2b88e8e
36	sha256:5a25c890f
35	sha256:2805409c
34	sha256:40a35c027
33	sha256:75aafa277

votingapp:42

sha256:495ac5967eb74966448fca6b2373de40ef4b6a99b2326b218ca5108a4ac6ac47

+ Create streaming artifact Refresh

Essentials

Repository : votingapp

Tag : 42

Tag creation date : 10/14/2024, 8:29 AM GMT+5:30

Tag last updated date : 10/14/2024, 8:29 AM GMT+5:30

Digest : sha256:495ac5967eb74966448fca6b2373de40ef4b6a99b2326...

Manifest creation date : 10/14/2024, 8:29 AM GMT+5:30

Platform : linux / amd64

Media type : application/vnd.docker.distribution.manifest.v2+json

Manifest Referrers

Docker pull command

docker pull lalitazurecid.azurecr.io/votingapp:42

Manifest

```
{
  "schemaVersion": 2,
  "mediaType": "application/vnd.docker.distribution.manifest.v2+json",
  "config": {
    "mediaType": "application/vnd.docker.container.image.v1+json",
    "size": 11356,
    "digest": "sha256:a3a916ff918ca0e28aa32bd04869eb413c8db7a62aca5f1c8af6e3438df96daa"
  },
  "layers": [
    {
      "mediaType": "application/vnd.docker.image.rootfs.diff.tar.gzip",
      "size": 29126276,
      "digest": "sha256:302e3ee490053a7b5332ac79e8efebec16e900209fc1ecd1c754ce8fa047fcab"
    }
  ]
}
```

8. Create AKS Cluster (Don't forget to enable public ip as we need to expose it through nodeport for using argocd)

To login to aks cluster:

az aks get-credentials --name azuredevops --overwrite-existing --resource-group azurecid

```
lalit [ ~ ]$ az aks get-credentials --name azuredevops --overwrite-existing --resource-group azurecid
Merged "azuredevops" as current context in /home/lalit/.kube/config
```

----Install ArgoCD

kubectl create namespace argocd

kubectl apply -n argocd -f <https://raw.githubusercontent.com/argoproj/argo-cd/stable/manifests/install.yaml>

--- get argocd svc and change the cluster IP service with edit command to NodePort for ArgoCD-server service.

```
lalit [ ~ ]$ kubectl get svc -n argocd
```

NAME	TYPE	CLUSTER-IP	EXTERNAL-IP	PORT(S)	AGE
argocd-applicationset-controller	ClusterIP	10.0.127.159	<none>	7000/TCP,8080/TCP	3d14h
argocd-dex-server	ClusterIP	10.0.53.138	<none>	5556/TCP,5557/TCP,5558/TCP	3d14h
argocd-metrics	ClusterIP	10.0.69.114	<none>	8082/TCP	3d14h
argocd-notifications-controller-metrics	ClusterIP	10.0.243.214	<none>	9001/TCP	3d14h
argocd-redis	ClusterIP	10.0.178.110	<none>	6379/TCP	3d14h
argocd-repo-server	ClusterIP	10.0.141.40	<none>	8081/TCP,8084/TCP	3d14h
argocd-server	NodePort	10.0.244.140	<none>	80:31349/TCP,443:30776/TCP	3d14h
argocd-server-metrics	ClusterIP	10.0.144.163	<none>	8083/TCP	3d14h

```
argocd-server-metrics ClusterIP 10.0.144.163 <none> 8083/TCP 3d14h
lalit [ ~ ]$ kubectl get nodes -o wide
```

NAME	STATUS	ROLES	AGE	VERSION	INTERNAL-IP	EXTERNAL-IP	OS-IMAGE	KERNEL-VERSION	CONTAINER-RUNTIME
aks-agentpool-35512848-vmss000000	Ready	<none>	3d14h	v1.29.8	10.224.0.4	52.143.96.89	Ubuntu 22.04.5 LTS	5.15.0-1073-azure	containerd://1.7.20-1

Link for ArgoCD: externalip of node :nodeport of argocd-server service

<https://52.143.96.89:31349/>username will be **admin** and for password edit argocd secret (argocd-initial-admin-secret) and copy the base64 code from there (like this MnNZc0hqCwpmXk0QUI10A==).

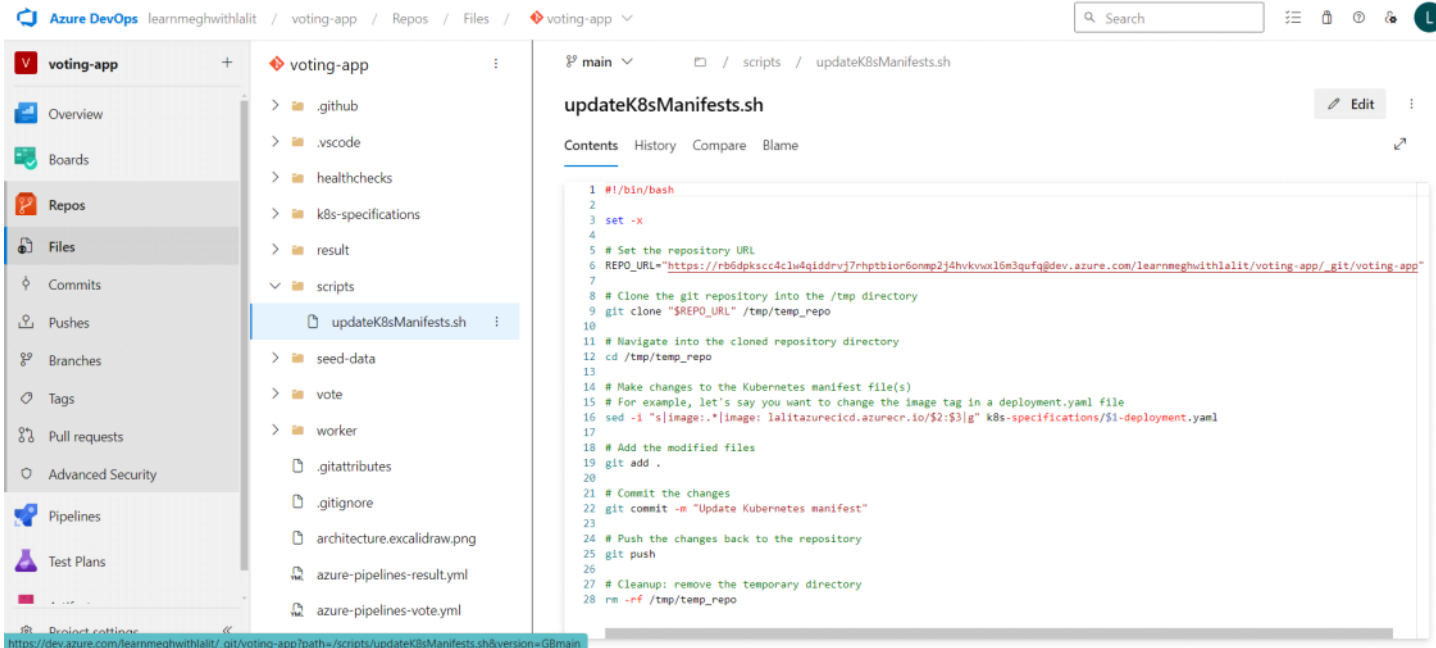
Then decode it with .

echo 'base64 code' | base64 --decode

You will get a decode value like this.

2sYsHjqfIy4Alu8

9. Create update script to edit new tag id in deployment yaml after pushing that updated image to ACR for a service.



```
#!/bin/bash
set -x
# Set the repository URL
REPO_URL="https://rb6dpksc4clw4qiddrvj7rhtptbior6onmp2j4hvkwxl6m3qufq@dev.azure.com/learnmeghwithalil/voting-app/_git/voting-app"
# Clone the git repository into the /tmp directory
git clone "$REPO_URL" /tmp/temp_repo
# Navigate into the cloned repository directory
cd /tmp/temp_repo
# Make changes to the Kubernetes manifest file(s)
# For example, let's say you want to change the image tag in a deployment.yaml file
sed -i "s|image:.+|image: lalitazureicd.azurecr.io/$2:$3|g" k8s-specifications/$1-deployment.yaml
# Add the modified files
git add .
# Commit the changes
git commit -m "Update Kubernetes manifest"
# Push the changes back to the repository
git push
# Cleanup: remove the temporary directory
rm -rf /tmp/temp_repo
```

There will be issues related to 'r' command not found issue during update of the manifest files in the Update stage. This issue exists for windows users and can be fixed by running the below shell commands. `sudo apt-get install dos2unix dos2unix <script.sh> // script file name` And then use the generated script in repo.

Logs for this script in azure devops pipeline

Starting: Run updateK8sManifests.sh

Task : Shell script

Description : Run a shell script using Bash

Version : 2.245.1

Author : Microsoft Corporation

Help : <https://docs.microsoft.com/azure/devops/pipelines/tasks/utility/shell-script>

Just /bin/bash /home/azureuser/myagent/_work/2/s/scripts/updateK8sManifests.sh vote votingapp 42

+ REPO_URL= https://rb6dpksc4clw4qiddrvj7rhtptbior6onmp2j4hvkwxl6m3qufq@dev.azure.com/learnmeghwithalil/voting-app/_git/voting-app

+ git clone https://rb6dpksc4clw4qiddrvj7rhtptbior6onmp2j4hvkwxl6m3qufq@dev.azure.com/learnmeghwithalil/voting-app/_git/voting-app /tmp/temp_repo

Cloning into '/tmp/temp_repo'...

+ cd /tmp/temp_repo

+ sed -i 's|image: lalitazureicd.azurecr.io/votingapp:42|g' k8s-specifications/vote-deployment.yaml

+ git add .

+ git commit -m 'Update Kubernetes manifest'

[main 1ad1066] Update Kubernetes manifest

Committer: Ubuntu <azureuser@azureagent.xhnnvc1jwou5n5mjwzaqrek3h.rx.internal.cloudapp.net>

Your name and email address were configured automatically based

on your username and hostname. Please check that they are accurate.

You can suppress this message by setting them explicitly. Run the

following command and follow the instructions in your editor to edit

your configuration file:

git config --global --edit

After doing this, you may fix the identity used for this commit with:

git commit --amend --reset-author

1 file changed, 1 insertion(+), 1 deletion(-)

+ git push

To https://dev.azure.com/learnmeghwithalil/voting-app/_git/voting-app

84ebee...1ad1066 main -> main

+ rm -rf /tmp/temp_repo

Finishing: Run updateK8sManifests.sh

As soon as this scripts updates image tag from ACR to these deployment yamls , Argocd will redeploy the yamls as it continuously looks for any updates in the yamls .

9. Configure argocd setup after logging into it .

Configure repository it will look for any changes and path of the directory.

Then create a application like Voting app.

argo

v2.12.3+6b9cd82

Applications

Settings

User Info

Documentation

Settings

CANCEL

CONNECTED REPOSITORY

EDIT

Type

git

Project

default

Repository URL

https://rb6dpksc4clw4qiddrvj7rhtpbior6onmp2j4hvkwxl6m3qufq@dev.azure.com/learnmeghwithalit/voting-app/_git/voting-app

Underlined token is PAT for connecting azure devops to argocd .

argo

v2.12.3+6b9cd82

Applications

Settings

User Info

Documentation

Settings

Repositories

+ CONNECT REPO

REFRESH LIST

Log out

REPOSITORIES

	TYPE	NAME	PROJECT	REPOSITORY	CONNECTION STATUS
	git		default	https://rb6dpksc4clw4qiddrvj7rhtpbior6onmp2j4hv...	<div>Successful</div>

argo

v2.12.3+6b9cd82

Applications

Settings

User Info

Documentation

Application

DETAILS

APP HEALTH

VOTEAPP-SERVICE

EDIT

PROJECT

default

ANNOTATIONS

CLUSTER

in-cluster (https://kubernetes.default.svc)

NAMESPACE

default

CREATED AT

10/10/2024 20:20:34 (4 days ago)

REPO URL

https://rb6dpksc4clw4qiddrvj7rhtpbior6onmp2j4hvkwxl6m3qufq@dev.azure.com/learnmeghwithalit/voting-app/_git/voting-app

TARGET REVISION

HEAD

PATH

k8s-specifications

SYNC OPTIONS

RETRY OPTIONS

Retry disabled

STATUS

Synced to HEAD (b0f9701)

HEALTH

Healthy

LINKS

NAME

NAME

KINDS

KINDS

SYNC STATUS

Synced

9

OutOfSync

0


HEALTH STATUS

Healthy

32

Progressing

0

argo
v2.12.3+6b9cd82

Applications

Settings

User Info

Documentation

NAME
NAME

KINDS
KINDS

SYNC STATUS

☐

☒

 Synced 9

☐

☒

 OutOfSync 0

HEALTH STATUS

☐

☒

 Healthy 32

☐

☒

 Progressing 0

RETRY OPTIONS

Retry disabled

STATUS

Synced to HEAD (b0f9701)

HEALTH

Healthy

LINKS

IMAGES

lailitazureciid.azurecr.io/resultapp:40

lailitazureciid.azurecr.io/votingapp:42

lailitazureciid.azurecr.io/workerapp:41

postgres:15-alpine

redis:alpine

SYNC POLICY

AUTOMATED

DISABLE AUTO-SYNC

PRUNE RESOURCES

ENABLE

SELF HEAL

ENABLE

INFO

EDIT

Not securehttps://52.143.96.89:31349/applications?showFavorites=false&proj=&sync=&autoSync=&health=&namespace=&cluster=&labels=

Describe the benefit...

AgileGuru

azure learning

Ultimatrix - Digitally...

tcs yoga 5:30am

chat gpt


Active Courses

Invest in Stocks: Exp...

How to Deploy an...

harmonica tabs of b...

All Bookmarks

argo
v2.12.3+6b9cd82

Applications

Settings

User Info

Documentation

☐

☒

 Favorites Only

SYNC STATUS

☐

☒

 Unknown 0

☐

☒

 Synced 1

☐

☒

 OutOfSync 0

HEALTH STATUS

☐

☒

 Unknown 0

☐

☒

 Progressing 0

☐

☒

 Suspended 0

☐

☒

 Healthy 1

☐

☒

 Degraded 0

Applications

APPLICATIONS TILES

+ NEW APP

+ SYNC APPS

+ REFRESH APPS

Search applications...

Sort: name ▼ Items per page: 10 ▼

voteapp-service

Project: default

Labels:

Status:

☒

 Healthy

☒

 Synced

Reposito... https://rb6dpkscc4clw4qiddrvj7rhtpbior...

Target R... HEAD

Path: k8s-specifications

Destinati... in-cluster

Namesp... default

Created ... 10/10/2024 20:20:34 (4 days ago)

Last Sync: 10/14/2024 09:08:00 (an hour ago)

+ SYNC

+ REFRESH

+ DELETE

The screenshot displays the Argo CD web interface for the 'voteapp-service' application. The interface is divided into a sidebar on the left and a main content area. The sidebar contains navigation links: Applications, Settings, User Info, and Documentation. The main content area shows the application's details, including its health status (Healthy), sync status (Synced to HEAD (b0f9701)), and a list of resources (deployments, services, ingress controllers) that are part of the application. The top navigation bar includes the application name and a search bar.

argo v2.12.3+6b9cd82

Applications / Q voteapp-service

APPLICATION DETAILS TREE

DETAILS DIFF SYNC SYNC STATUS HISTORY AND ROLLBACK DELETE REFRESH

APP HEALTH: Healthy

SYNC STATUS: Synced to HEAD (b0f9701)

LAST SYNC: Sync OK to b0f9701

Auto sync is enabled.

Author: learnmeghwithalit <learnmeghwithalit@gmail.com> - Comment: Updated worker-deployment.yaml

Succeeded an hour ago (Mon Oct 14 2024 09:08:00 GMT+0530)

Author: learnmeghwithalit <learnmeghwithalit@gmail.com> - Comment: Updated worker-deployment.yaml

NAME: NAME

KINDS: KINDS

SYNC STATUS: Synced 9, OutOfSync 0

HEALTH STATUS: Healthy 27

Diagram showing application components and their dependencies.

Not secure https://52.143.96.89:31349/user-info?changePassword=false

Describe the benefit... AgileGuru azure learning UltimatiX - Digitally... tcs yoga 5:30am chat gpt Active Courses Invest in Stocks: Exp... How to Deploy an... harmonica tabs of b... All Bookmarks

argo v2.12.3+6b9cd82

User Info

UPDATE PASSWORD

Username: admin

Issuer: argocd

USER INFO

Log out

argo v2.12.3+6b9cd82

Applications / Q voteapp-service

APPLICATION DETAILS TPODS

DETAILS DIFF SYNC SYNC STATUS HISTORY AND ROLLBACK DELETE REFRESH

APP HEALTH: Healthy

SYNC STATUS: Synced to HEAD (b0f9701)

LAST SYNC: Sync OK to b0f9701

Auto sync is enabled.

Author: learnmeghwithalit <learnmeghwithalit@gmail.com> - Comment: Updated worker-deployment.yaml

Succeeded an hour ago (Mon Oct 14 2024 09:08:00 GMT+0530)

Author: learnmeghwithalit <learnmeghwithalit@gmail.com> - Comment: Updated worker-deployment.yaml

GROUP BY: NODE UNSCHEDULABLE

aks-agentpool-35512848-vmss000000

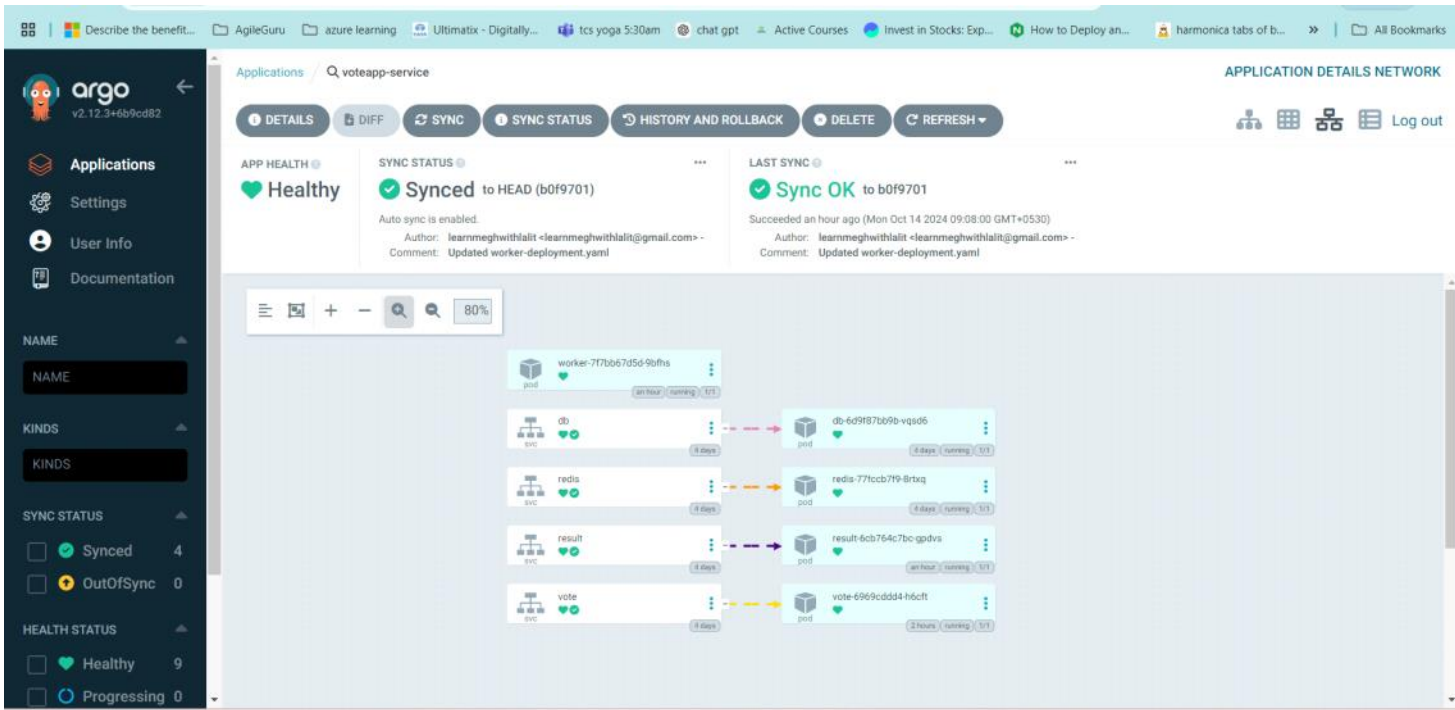
node

Kernel Version: 5.15.0-1073-azure

OS/Arch: linux/amd64

CPU MEM

PODS



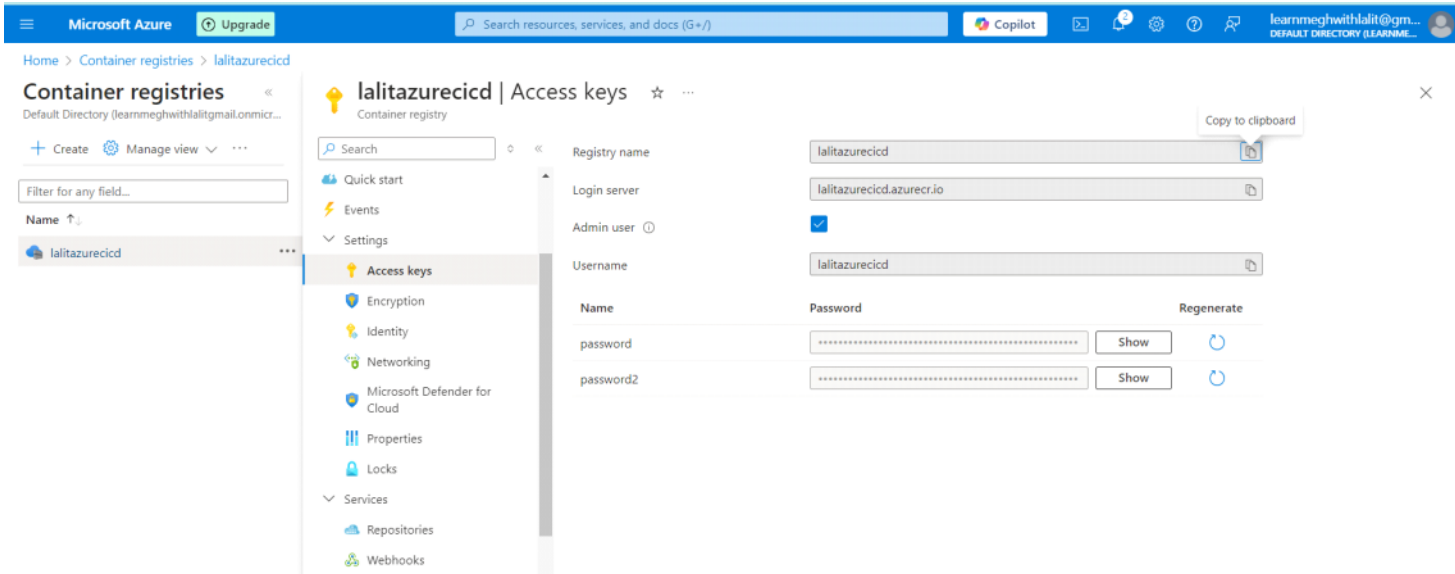
10.

Command to create ACR ImagePullSecret

```
kubectl create secret docker-registry <secret-name> \
--namespace <namespace> \
--docker-server=<container-registry-name>.azurecr.io \
--docker-username=<service-principal-ID> \
--docker-password=<service-principal-password>
```

```
kubectl create secret docker-registry acr-secret --namespace default --docker-server=lalitazurecid.azurecr.io --docker-username=lalitazurecid --docker-password=WxLFG9caZGelU9ouSMU8Ug6sMzoJF+BgId/74/EwJi+ACRALt6l0
```

Password is secret key that we generated in ACR.



Update the deployment yamls also referring the secret otherwise it will give imagepullback error.

```
Tolerations:
node.kubernetes.io/not-ready:NoExecute op=Exists for 300s
node.kubernetes.io/unreachable:NoExecute op=Exists for 300s

Events:
Type Reason Age From Message
----
Normal Scheduled 95s default-scheduler Successfully assigned default/result-8cd69cb4-f6nw6 to aks-agentpool-35512848-vmss000000
Normal BackOff 19s (x5 over 94s) kubelet Back-off pulling image "lalitazurecid.azurecr.io/resultapp:40"
Warning Failed 19s (x5 over 94s) kubelet Error: ImagePullBackOff
Normal Pulling 5s (x4 over 95s) kubelet Pulling image "lalitazurecid.azurecr.io/resultapp:40"
Warning Failed 5s (x4 over 94s) kubelet Failed to pull image "lalitazurecid.azurecr.io/resultapp:40": failed to pull and unpack image "lalitazurecid.azurecr.io/resultapp:40": failed to resolve reference "lalitazurecid.azurecr.io/resultapp:40": failed to authorize: failed to fetch anonymous token: unexpected status from GET request to https://lalitazurecid.azurecr.io/oauth2/token?scope=repository%3Aresultapp%3Apull&service=lalitazurecid.azurecr.io: 401 Unauthorized
Warning Failed 5s (x4 over 94s) kubelet Error: ErrImagePull

lalit [ ~ ]$ kubectl get pods
NAME READY STATUS RESTARTS AGE
```



```
apiVersion: apps/v1
kind: Deployment
metadata:
  labels:
    app: worker
    name: worker
spec:
  replicas: 1
  selector:
    matchLabels:
      app: worker
  template:
    metadata:
      labels:
        app: worker
    spec:
      containers:
        - image: lalitazurecicd.azurecr.io/workerapp:41
          name: worker
          ports:
            - containerPort: 80
          name: worker
          imagePullSecrets:
            - name: acr-secret

apiVersion: apps/v1
kind: Deployment
metadata:
  labels:
    app: vote
    name: vote
spec:
  replicas: 1
  selector:
    matchLabels:
      app: vote
  template:
    metadata:
      labels:
        app: vote
    spec:
      containers:
        - image: lalitazurecicd.azurecr.io/votingapp:42
          name: vote
          ports:
            - containerPort: 80
          name: vote
          imagePullSecrets:
            - name: acr-secret

apiVersion: apps/v1
kind: Deployment
metadata:
  labels:
    app: result
    name: result
spec:
  replicas: 1
  selector:
    matchLabels:
      app: result
  template:
    metadata:
      labels:
        app: result
    spec:
      containers:
        - image: lalitazurecicd.azurecr.io/resultapp:40
          name: result
          ports:
            - containerPort: 80
          name: result
          imagePullSecrets:
            - name: acr-secret
```

```
lalit [ ~ ]$ kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
db-6d9f87bb9b-vqsds                1/1     Running   0           3d14h
redis-77fccb7f9-8rtxq              1/1     Running   0           3d14h
result-6cb764c7bc-gpdvs            1/1     Running   0           85m
vote-6969cddd4-h6cft               1/1     Running   0           121m
worker-7f7bb67d5d-9bfrhs           1/1     Running   0           85m
lalit [ ~ ]$
```

Home > Resource groups >

Resource groups

Default Directory

+ Create ... | Group by none

MC_azurecicd_azureddevops_westus2 Resource group

Search

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

Overview

- Activity log
- Access control (IAM)
- Tags
- Resource visualizer
- Events
- Settings
- Cost Management
- Monitoring
- Automation
- Help

Resources Recommendations (2)

Filter for any field... Type equals all Location equals all Add filter

Showing 1 to 6 of 6 records. Show hidden types No grouping List view

Name	Type	Location
419db7a4-b6d4-4dfc-b9e6-3c0f479144f8	Public IP address	West US 2
aks-agentpool-24480629-nsg	Network security group	West US 2
aks-agentpool-35512848-vmss	Virtual machine scale set	West US 2
aks-vnet-24480629	Virtual network	West US 2
azureddevops-agentpool	Managed Identity	West US 2
kubernetes	Load balancer	West US 2

Showing 1 - 3 of 3. Display 10

Microsoft Azure Upgrade Search resources, services, and docs (G+/) Copilot learnmeghwithalif@gm... DEFAULT DIRECTORY

Home > Resource groups >

Resource groups

Default Directory

+ Create ... | Group by none

azurecicd Resource group

Search

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

Overview

- Activity log
- Access control (IAM)
- Tags
- Resource visualizer
- Events
- Settings
- Cost Management
- Monitoring
- Automation
- Help

Resources Recommendations (22)

Filter for any field... Type equals all Add filter

Showing 1 to 9 of 9 records. Show hidden types No grouping List view

Name	Type	Location
azureagent	Virtual machine	Central India
azureagent-ip	Public IP address	Central India
azureagent-nsg	Network security group	Central India
azureagent-vnet	Virtual network	Central India
azureagent388_21	Network Interface	Central India
azureagent_disk1_6ae2805f04644066b52a74e680928538	Disk	Central India

Microsoft Azure Upgrade Search resources, services, and docs (G+)

Home > Resource groups > **Resource groups** Default Directory

+ Create ... Group by none

You are viewing a new version of Browse experience. Some features may be missing. Click here to access the old experience.

☐ Name ↑
☐ azureicid
☐ MC_azureicid_azuredevops_westu...
☐ NetworkWatcherRG

Overview

- Activity log
- Access control (IAM)
- Tags
- Resource visualizer
- Events
- Settings
- Cost Management
- Monitoring
- Automation
- Help

Essentials

Resources Recommendations (22)

Filter for any field... Type equals all Add filter

Showing 1 to 9 of 9 records. Show hidden types

Name ↑	Type ↑	Location ↑
azureagent-nsg	Network security group	Central India
azureagent-vnet	Virtual network	Central India
azureagent388_z1	Network interface	Central India
azureagent_disk1_6ae2805f04644066b52a74e680928538	Disk	Central India
azureagent_key1	SSH key	Central India
azuredevops	Kubernetes service	West US 2
lalityazureicid	Container registry	East US

Home > Resource groups > MC_azureicid_azuredevops_westus2

Resource groups Default Directory

+ Create ... Group by none

You are viewing a new version of Browse experience. Some features may be missing. Click here to access the old experience.

☐ Name ↑
☐ azureicid
☐ MC_azureicid_azuredevops_westu...
☐ NetworkWatcherRG

Overview

- Activity log
- Access control (IAM)
- Tags
- Resource visualizer
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- Monitoring
- Automation
- Help

MC_azureicid_azuredevops_westus2 | Resource visualizer

Choose resources Reset diagram Zoom to fit Refresh Export List view Feedback

Showing 1 - 3 of 3. Display count: 10

azureicid | Resource visualizer

Search Choose resources Reset diagram Zoom to fit Refresh Export List view Feedback

Overview

- Activity log
- Access control (IAM)
- Tags
- Resource visualizer
- Events
- Settings
- Cost Management
- Monitoring
- Automation
- Help