

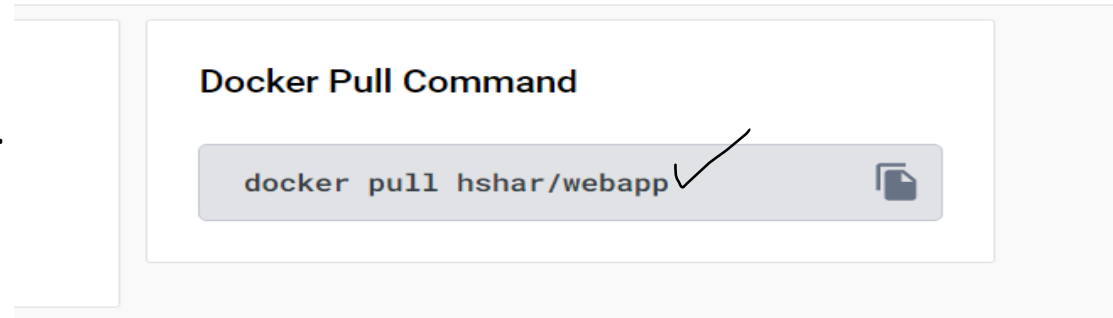
Assignment 1

Tasks To Be Performed:

1. Install a Docker using VM
2. Pull hshar/webapp (<https://hub.docker.com/r/hshar/webapp>) repository
3. Create a new file in this repository

Create the VM with Linux OS – open port http and https both – connect to the machine install docker.

Copy and paste this command into VM to pull docker images.



```
sid@Dockervm:~$ sudo docker pull hshar/webapp
Using default tag: latest
latest: Pulling from hshar/webapp
a48c500ed24e: Pull complete
1e1de00ff7e1: Pull complete
0330ca45a200: Pull complete
471db38bcfbf: Pull complete
0b4aba487617: Pull complete
c2e32ec79cfd: Pull complete
a18d6ba75273: Pull complete
4c2cc0ff3ce8: Pull complete
Digest: sha256:3c7cbcab1a26c01410dcc9cbc57252b50d9ed2f31a2dc24e3f066c61b88e839b
Status: Downloaded newer image for hshar/webapp:latest
docker.io/hshar/webapp:latest
sid@Dockervm:~$ sudo docker images
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
hshar/webapp	latest	0cbc1f535ed8	4 years ago	303MB

```
sid@Dockervm:~$
```

```
sid@Dockervm:~$ history
 1  sudo apt-get update -y
 2  sudo apt-get install docker.io -y
 3  which docker
 4  sudo service docker status
 5  sudo docker pull hshar/webapp
 6  sudo docker images
 7  sudo docker ps -a
 8  history
sid@Dockervm:~$
```

```
sid@Dockervm:~$ sudo docker run -itd --name dockervm hshar/webapp  
570f22c88d5e9be6cd617ea1db71750da3a739f429e4e6296901da6de48485a1
```

Create container for image

```
sid@Dockervm:~$ sudo docker ps -a
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
570f22c88d5e	hshar/webapp	"/bin/sh -c 'apachec...'"	12 seconds ago	Up 11 seconds	80/tcp	dockervm

```
sid@Dockervm:~$ sudo docker exec -it dockervm bash  
root@570f22c88d5e:/#
```

To get inside container for do some changes

```
root@570f22c88d5e:/# cd /var/www/html  
root@570f22c88d5e:/var/www/html# ls  
index.php  
root@570f22c88d5e:/var/www/html# rm index.php  
root@570f22c88d5e:/var/www/html# ls  
root@570f22c88d5e:/var/www/html# nano index.html  
root@570f22c88d5e:/var/www/html# ls  
index.html  
root@570f22c88d5e:/var/www/html# exit  
exit  
sid@Dockervm:~$
```

Assignment 2

Tasks To Be Performed:

1. Create an Azure Container Registry and connect it to Docker running in VM
2. Upload the image you created in this Azure to container registry
3. Create an app service to deploy the same image

Search for container registry and create

[Home](#) > [Container registries](#) >

Create container registry ...

Basics Networking Encryption Tags Review + create

Azure Container Registry allows you to build, store, and manage container images and artifacts in a private registry for all types of container deployments. Use Azure container registries with your existing container development and deployment pipelines. Use Azure Container Registry Tasks to build container images in Azure on-demand, or automate builds triggered by source code updates, updates to a container's base image, or timers. [Learn more](#)

Project details

Subscription *

Free Trial

Resource group *

22-01-24

[Create new](#)

Instance details

Registry name *

Dockervmregis

.azurecr.io

Location *

East US

Use availability zones ⓘ

☐

i Availability zones are activated on premium registries and in regions that support availability zones. [Learn more](#)

Pricing plan * ⓘ

Standard

Review + create

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Next: Networking >

For creating a new repo using container registry we have to copy the login server and paste into VM

Using other credential login into repository.

Home > Microsoft.ContainerRegistry | Overview > Dockervmregis

Dockervmregis | Access keys ☆ ...

Container registry

Search

Registry name: Dockervmregis

Login server: dockervmregis.azurecr.io ✓

Admin user: ☒

Username: Dockervmregis ✓

Name	Password	Regenerate
password	P8a4T09LVND+9oahN7XpyjKDPWFhBOZbSWHpxV+lyU+A... ✓	
password2	WHhs6Fr17Fz3uX7Eu6fDpaJtRZQQeQLZSQ3tZpe11V+ACR...	

```
sid@Dockervm:~$ sudo docker commit dockervm
sha256:2e4b1e93ad8ff8880682214355baf82b30155a61629423554e1f10c0a64a5d70
sid@Dockervm:~$ sudo docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
<none>        <none>    2e4b1e93ad8f   9 seconds ago  303MB
hshar/webapp   latest    0cbc1f535ed8   4 years ago    303MB
sid@Dockervm:~$ sudo docker commit dockervm dockervmregis.azurecr.io/app1 ✓
sha256:3d8789abafa1a9a0f178ed4ff12d7a17109cfe1ee35a42cc0709a04f576ba2ae
sid@Dockervm:~$ sudo docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
dockervmregis.azurecr.io/app1  latest    3d8789abafa1   9 seconds ago  303MB
<none>        <none>    2e4b1e93ad8f   4 minutes ago  303MB
hshar/webapp   latest    0cbc1f535ed8   4 years ago    303MB
sid@Dockervm:~$ docker image rm 2e4b1e93ad8f
permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: permission denied
sid@Dockervm:~$ sudo docker image rm 2e4b1e93ad8f ✓
Deleted: sha256:2e4b1e93ad8ff8880682214355baf82b30155a61629423554e1f10c0a64a5d70
Deleted: sha256:0dd1dcc2b2a5de4f0203d4b4773379d7e8fd489636441309574dd0b5e622f127e
sid@Dockervm:~$ sudo docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
dockervmregis.azurecr.io/app1  latest    3d8789abafa1   3 minutes ago  303MB ✓
hshar/webapp   latest    0cbc1f535ed8   4 years ago    303MB
sid@Dockervm:~$
```

```
sid@Dockervm:~$ sudo docker login dockervmregis.azurecr.io
Username: Dockervmregis
Password:
WARNING! Your password will be stored unencrypted in /root/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
sid@Dockervm:~$
```

```
sid@Dockervm:~$ sudo docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS        NAMES
d79102ba1d38   hshar/webapp   "/bin/sh -c 'apachec..." 43 seconds ago Up 41 seconds 80/tcp        dockervm

sid@Dockervm:~$ sudo docker exec -it dockervm bash
root@d79102ba1d38:/# cd /var/www/html
root@d79102ba1d38:/var/www/html# ls
index.php
root@d79102ba1d38:/var/www/html# rm index.php
root@d79102ba1d38:/var/www/html# ls
root@d79102ba1d38:/var/www/html# nano index.html
root@d79102ba1d38:/var/www/html# exit
exit
sid@Dockervm:~$ sudo docker commit dockerre.azurecr.io/app
Error response from daemon: No such container: dockerre.azurecr.io/app
sid@Dockervm:~$ sudo docker commit d79102ba1d38 dockerre.azurecr.io/app
sha256:bf9b3e6dd5a340ab7b6c7f1a98bb083def9e4ce4f02a935c61af3bc3f3cda651
sid@Dockervm:~$ sudo docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS        NAMES
d79102ba1d38   hshar/webapp   "/bin/sh -c 'apachec..." 11 minutes ago Up 11 minutes 80/tcp        dockervm

sid@Dockervm:~$ sudo docker images
REPOSITORY          TAG   IMAGE ID   CREATED   SIZE
dockerre.azurecr.io/app   latest   bf9b3e6dd5a3   19 seconds ago   303MB
hshar/webapp          latest   0cbc1f535ed8   4 years ago     303MB

sid@Dockervm:~$ sudo docker login dockerre.azurecr.io
Username: Dockerre
Password:
WARNING! Your password will be stored unencrypted in /root/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
sid@Dockervm:~$ sudo docker push dockerre.azurecr.io/app
Using default tag: latest
The push refers to repository [dockerre.azurecr.io/app]
66242f275ba6: Pushed
f9445cdd87ab: Pushed
3e59a52a52d1: Pushed
754d8c63561b: Pushed
059ad60bcacf: Pushed
8db5f072feec: Pushed
67885e448177: Pushed
ec75999a0cb1: Pushed
65bdd50ee76a: Pushed
latest: digest: sha256:d325e6adc19c27e534a09824397da868872f42798346e5e9b46fc99babd0d96e size: 2193
sid@Dockervm:~$
```

Change app1 to app

If pushed repo not visible in repo section of container registry then create a assignment role – Search for ACR push – next - select members – choose email id- Review and Assign

[Home](#) > [Microsoft.ContainerRegistry | Overview](#) > [Dockerre](#)



Dockerre | Access control (IAM) ☆ ...

Container registry

Overview

Activity log

Access control (IAM) ✓

Tans

+ Add ▾



Download role assignments

≡ Edit columns



Refresh



Remove



Feedback

Add role assignment ✓

Add co-administrator

assignments

Roles

Deny assignments

Classic administrators

My access

View my level of access to this resource.



Type : All

Category : All

Name ↑↓

Description ↑↓

AcrPush

acr push ✓

Showing 1 - 1 of 1 results.

Add role assignment

Role • **Members** • Review + assign

Assign access to

☒ User, group, or service principal

☐ Managed identity

Members

+ Select members ✓

Name	Object ID	Type
------	-----------	------

No members selected


Description


Optional

Review + assign


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 Quick start


 Events


Settings


 Access keys


 Encryption

 Identity


 Networking

 Microsoft Defender for Cloud

 Properties

 Locks

Services

 Repositories ✓

Select members

Select ⓘ

Search by name or email address

No users, groups, or service principals found.

Selected members:



Kapil shukla
shuklakapil20000_gmail.com#EXT#@s... [Remove](#)

Select

Close



New to ACR, Artifact streaming helps pull images faster from AKS clusters. The 'Artifact streaming status' cc this feature. [Learn more](#)

 Search to filter repositories ...

Repositories ↑↓

app ✓

Cache Rule

For creating the app service search for APP service – create – choose web app

[Home](#) >

App Services

Default Directory

+ Create ▾ Manage Deleted Apps Manage view ▾ Refresh Export to CSV

+ Web App ✓
+ Static Web App
+ Web App + Database
+ WordPress on App Service

Subscription equals **all** Resource group equals **all** X

Status ↑↓ Location ↑↓

[Home](#) > [App Services](#) >

Create Web App

Basics Database **Docker** Networking Monitoring Tags Review + create

Pull container images from Azure Container Registry, Docker Hub or a private Docker repository. App Service will deploy the containerized app with your preferred dependencies to production in seconds.

Options Single Container ▾

Image Source Azure Container Registry ✓ ▾

Azure container registry options

Registry * Dockerre ▾

Image * app ▾

Tag * latest ▾

Startup Command ⓘ

Review + create ✓

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[Home](#) > [App Services](#) >

Create Web App

Basics Database Docker Networking Monitoring Tags Review + create

App Service Web Apps lets you quickly build, deploy, and scale enterprise-grade web, mobile, and API apps running on any platform. Meet rigorous performance, scalability, security and compliance requirements while using a fully managed platform to perform infrastructure maintenance. [Learn more](#)

Project Details

Select a subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * ⓘ Free Trial ▾

Resource Group * ⓘ 23-01-24 ▾
[Create new](#)

Instance Details

Name * Dockerre-webapp ✓
 .azurewebsites.net

Publish * ☐ Code ☒ Docker Container ☐ Static Web App

Operating System * ☒ Linux ☐ Windows ✓

Region * East US ▾

Not finding your App Service Plan? Try a different region or select your App

Review + create

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Next : Database > ✓

Copy the default domain URL and browse , hence we are able to see the image.

Home > Microsoft.Web-WebApp-Portal-37d5c30e-8e5e | Overview >



Dockerre-webapp

Web App

Search

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Microsoft Defender for Cloud

Events (preview)

Deployment

Deployment slots

Deployment Center

Browse Stop Swap Restart Delete Refresh Download publish profile Reset publish profile Share to mobile Send us your feedback

Essentials

JSON View

Resource group (move) : 23-01-24

Status : Running

Location (move) : East US

Subscription (move) : Free Trial

Subscription ID : dfe5760d-8ca2-4f3e-af83-62c16886c3b7

Tags (edit) : Add tags

Default domain : dockerre-webapp.azurewebsites.net

App Service Plan : ASP-230124-9c76 (B1: 1)

Operating System : Linux

Health Check : Cannot fetch health check data. Please try again later.

Properties Monitoring Logs Capabilities Notifications Recommendations



Web app



Deployment Center

Name

Dockerre-webapp

Deployment logs

View logs

This is a heading

This is a paragraph.

This is another paragraph.