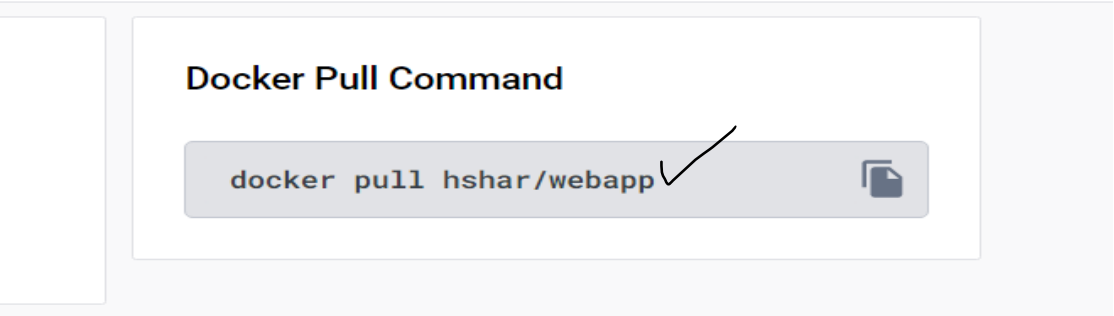
Assignment 1

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
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:/#
```

Create container for image

To get inside container for do some changes

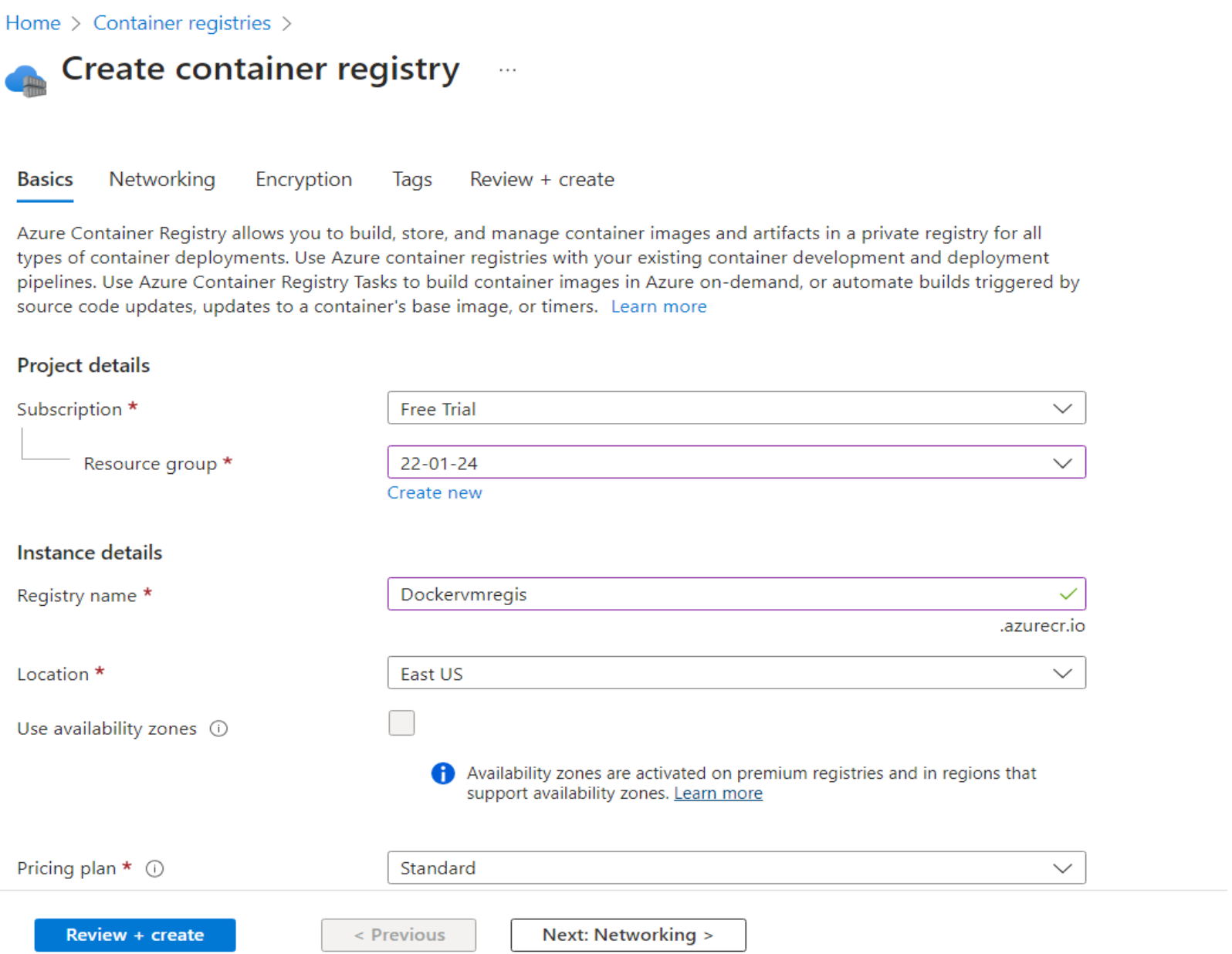
```
root@570f22c88d5e:/# cd /var/www/html
root@570f22c88d5e:/var/www/html# ls
index.php
root@570f22c88d5e:/var/www/html# rm index.php
root@570f22c88d5e:/var/www/html# ls
root@570f22c88d5e:/var/www/html# nano index.html
root@570f22c88d5e:/var/www/html# ls
index.html
root@570f22c88d5e:/var/www/html# exit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

Assignment 2

Tasks To Be Performed:

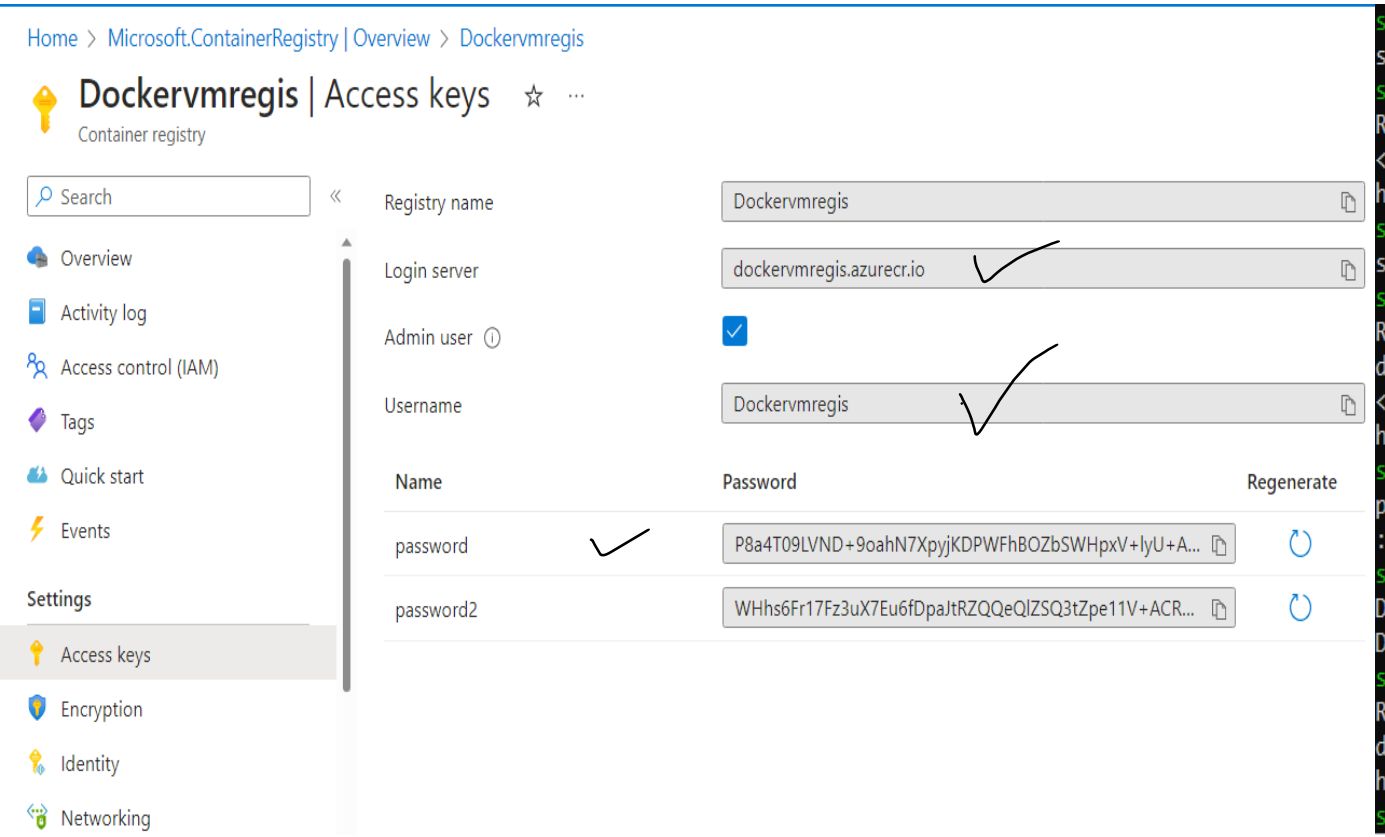
1. Create an Azure Container Registry and connect it to Docker running in VM
2. Upload the image you created in this Azure to container registry
3. Create an app service to deploy the same image

Search for container registry and create



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.



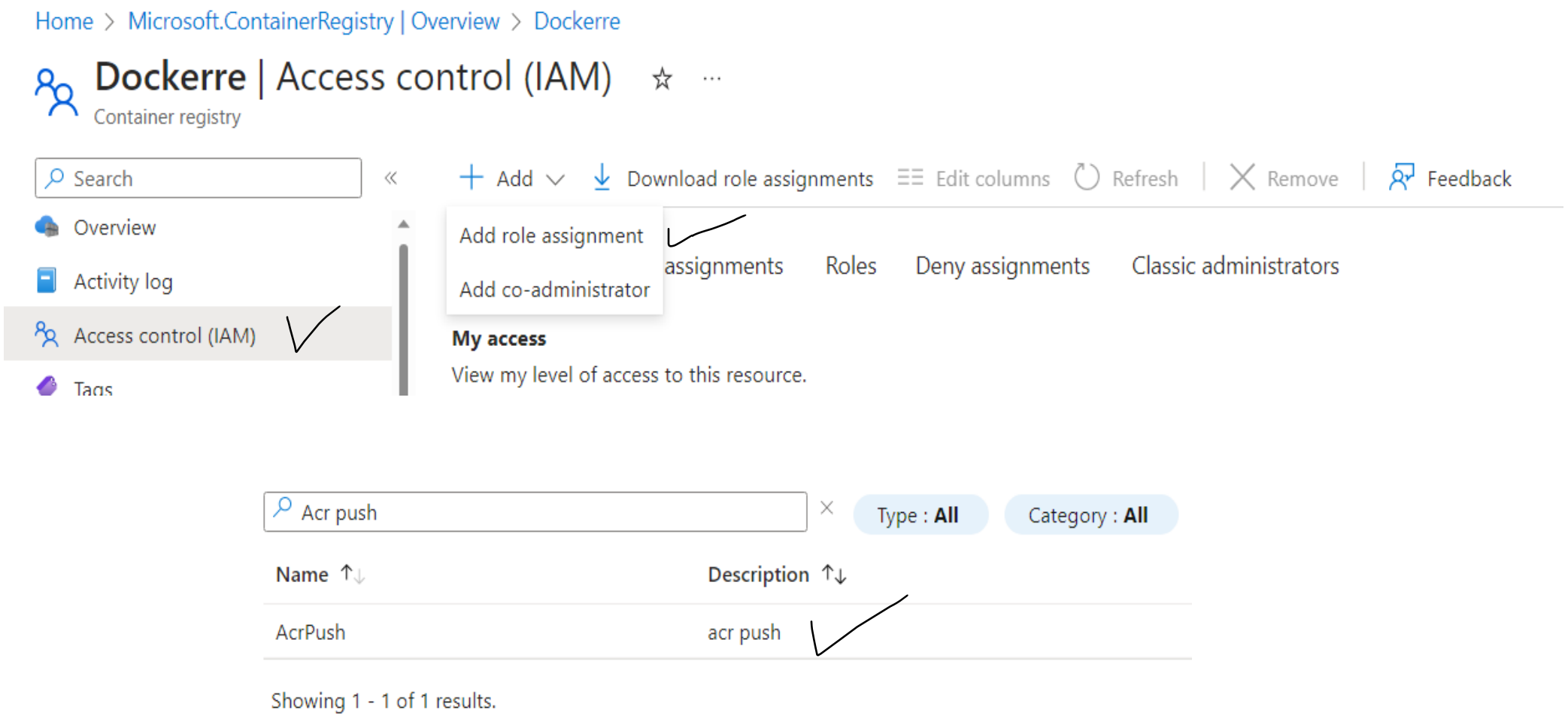

```
sid@Dockervm:~$ sudo docker commit dockervm
sha256:2e4b1e93ad8ff8880682214355baf82b30155a61629423554e1f10c0a64a5d70
sid@Dockervm:~$ sudo docker images
REPOSITORY     TAG       IMAGE ID       CREATED         SIZE
<none>         <none>    2e4b1e93ad8f   9 seconds ago   303MB
hshar/webapp   latest    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/docke
: permission denied
sid@Dockervm:~$ sudo docker image rm 2e4b1e93ad8f
Deleted: sha256:2e4b1e93ad8ff8880682214355baf82b30155a61629423554e1f10c0a64a5d70
Deleted: sha256:0dd1dccb2a5de4f0203d4b4773379d7e8fd489636441309574dd0b5e622f127e
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:~$
```

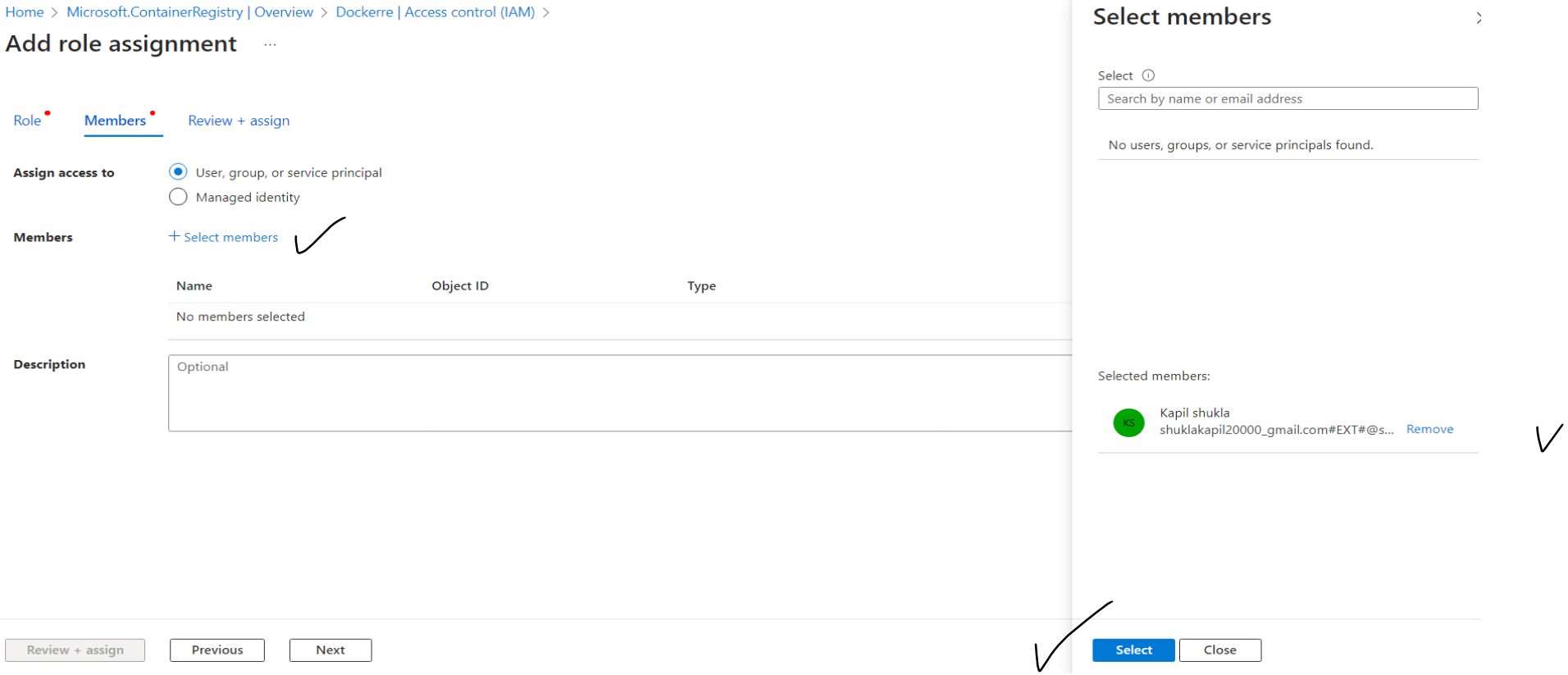
```
sid@Dockervm:~$ sudo docker login dockervmregis.azurecr.io
Username: Dockervmregis
Password:
WARNING! Your password will be stored unencrypted in /root/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
sid@Dockervm:~$
```

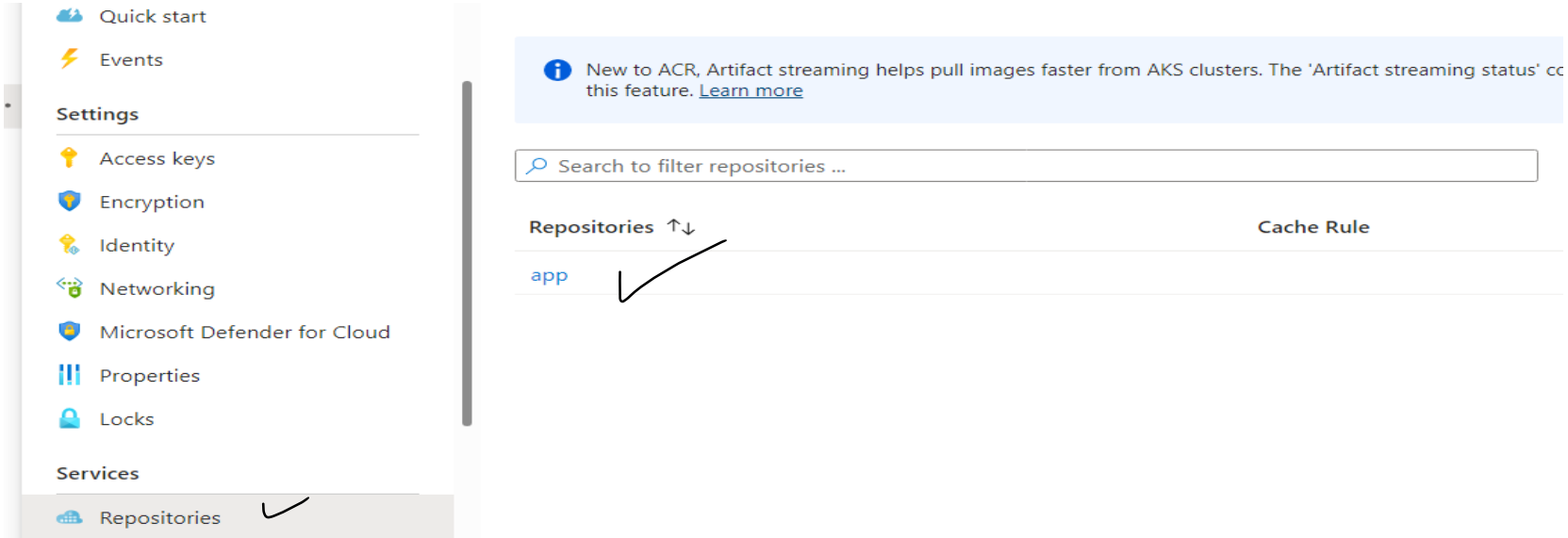
```
sid@Dockervm:~$ sudo docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED          STATUS          PORTS     NAMES
d79102ba1d38   hshar/webapp   "/bin/sh -c 'apachec…"   43 seconds ago   Up 41 seconds   80/tcp    dockervm
sid@Dockervm:~$ sudo docker exec -it dockervm bash
root@d79102ba1d38:/# 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 | Access control (IAM) >
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
Previous
Next
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


Quick start
Events
Settings
Access keys
Encryption
Identity
Networking
Microsoft Defender for Cloud
Properties
Locks
Services
Repositories
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
Cache Rule
app

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 C

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

Subscription equals all | Resource group equals all

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 | < Previous | Next : Networking >

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 | < Previous | Next : Database >

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