Azure Assignment (AZ – 104- Module 5) Avishekh Sinha

MODULE 5 – Web App and Container Services

ASSIGNMENT-1

- 1. INSTALL A DOCKER USING VM.
- 2. PULL HSHAR/WEBAPP (https://hub.docker.com/r/hshar/webapp) REPOSITORY
- 3. CREATE NEW FILE IN THIS REPOSITORY

To install Docker Runtime on a Linux VM- Run the following command

UPDATE	sudo apt-get update
PACKAGE	
INSTALL	sudu apt-get install docker.io
DOCKER	Fetched 21.5 MB in 4s (6076 kB/s) Reading package lists Done avishekhelinuxDockerVM:-\$ sudo apt-get install docker.io Reading package lists Done Building dependency tree Reading state information Done The following additional packages will be installed: bridge-utils containerd dns-root-data dnsmasq-base libidn1l pigz runc ubuntu-fan Sungested packages: ifupdown aufs-tools cgroupfs-mount cgroup-lite debootstrap docker-doc rinse zfs-fuse zfsutils The following NEW packages will be installed: bridge-utils containerd dns-root-data dnsmasq-base docker.io libidn1l pigz runc ubuntu-fan 0 upgraded, 9 newly installed, 0 to remove and 0 not upgraded. Need to get 69.2 MB of archives. After this operation, 334 MB of additional disk space will be used. Do you want to continue? [Y/n] Y Get:1 http://azure.archive.ubuntu.com/ubuntu focal/universe amd64 pigz amd64 2.4-1 [57.4 kB] Get:2 http://azure.archive.ubuntu.com/ubuntu focal/main amd64 bridge-utils amd64 1.6-2ubuntu1 [30.5 kB] Get:3 http://azure.archive.ubuntu.com/ubuntu focal-updates/main amd64 cunc amd64 1.1.0-0ubuntu1-20.04.2 [3894 kB] Get:4 http://azure.archive.ubuntu.com/ubuntu focal-updates/main amd64 cunc amd64 1.5.9-0ubuntu1-20.04.6 [33.0 M Get:5 http://azure.archive.ubuntu.com/ubuntu focal-updates/main amd64 docker.lo amd64 2.80-1.lubuntu1-20.04.6 [35.0 M Get:6 http://azure.archive.ubuntu.com/ubuntu focal-updates/main amd64 docker.lo amd64 2.80-1.lubuntu1-20.04.1 [Get:7 http://azure.archive.ubuntu.com/ubuntu focal-updates/main amd64 docker.lo amd64 2.80-1.lubuntu1-20.04.1 [Get:8 http://azure.archive.ubuntu.com/ubuntu focal-updates/main amd64 docker.lo amd64 2.80-1.lubuntu2-20.04.1 [Get:9 http://azure.archive.ub
CHECK	sudo service docker status
DOCKER	
STATUS	

```
avishekh@linuxDockerVM:~$ sudo service docker status

    docker.service - Docker Application Container Engine

                 Loaded: loaded (/lib/systemd/system/docker.service; enabled; vendor preset: enabled)
                 Active: active (running) since Tue 2023-01-17 08:00:06 UTC; 2min 18s ago
             TriggeredBy: • docker.socket
                   Docs: https://docs.docker.com
               Main PID: 2603 (dockerd)
                  Tasks: 7
                 Memory: 36.9M
                 CGroup: /system.slice/docker.service
                         L-2603 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/containerd.sock
TO PULL THE
             sudo docker pull hshar/webapp
REPO
             avishekh@linuxDockerVM:~$ sudo docker pull hshar/webapp
             Using default tag: latest
             latest: Pulling from hshar/webapp
             a48c500ed24e: Pull complete
             lelde00ff7el: Pull complete
             0330ca45a200: Pull complete
             471db38bcfbf: Pull complete
             Ob4aba487617: 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
TO CHECK THE
             sudo docker images
IMAGES
             avishekh@linuxDockerVM:~$ sudo docker images
             REPOSITORY
                               TAG
                                            IMAGE ID
                                                               CREATED
                                                                                SIZE
             hshar/webapp latest
                                            0cbc1f535ed8
                                                               3 years ago
                                                                                303MB
             avishekh@linuxDockerVM:~$ sudo docker ps -a
TO CREATE
             sudo docker run -itd --name myapp hshar/webapp
             avishekh@linuxDockerVM:~$ sudo docker run -itd --name myapp hshar/webapp
THE DOCKER
             cbeafb6cbc58e8a224678bebca983c0a6529008f7e09028d86c48183a5fa22da
CONTAINER
             avishekh@linuxDockerVM:~$ sudo docker ps -a
             CONTAINER ID IMAGE
                                           COMMAND
                                                                     CREATED
                                                                                      STATUS
                                                                                                     PORTS
                                                                                                               NAMES
                            hshar/webapp "/bin/sh -c 'apachec..." 8 seconds ago Up 6 seconds
             cbeafb6cbc58
                                                                                                     80/tcp
                                                                                                               myapp
             avishekh@linuxDockerVM:~$ ■
             sudo docker exec -it myapp bash
TO RUN THE
DOCKER
             Run a command in a running container
CONTAINER
             avishekh@linuxDockerVM:~$ sudo docker exec -it myapp bash
             root@cbeafb6cbc58:/#
```

CREATING	
NEW FILE IN	
THIS	
REPOSITORY	

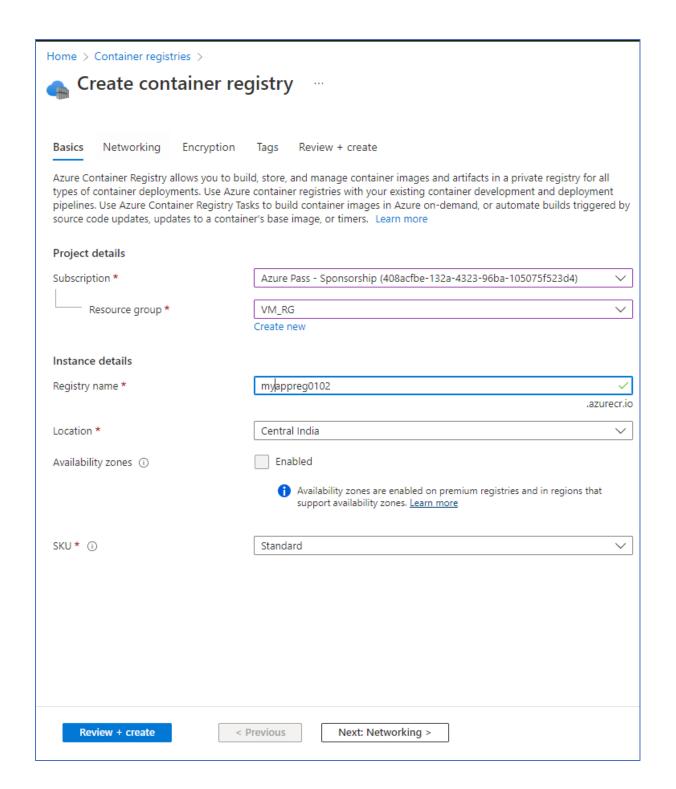
- Navigate to webroot directory cd /var/www/html
- Open the Editor to add the file nano index.html
- Copy the given HTML in index.html

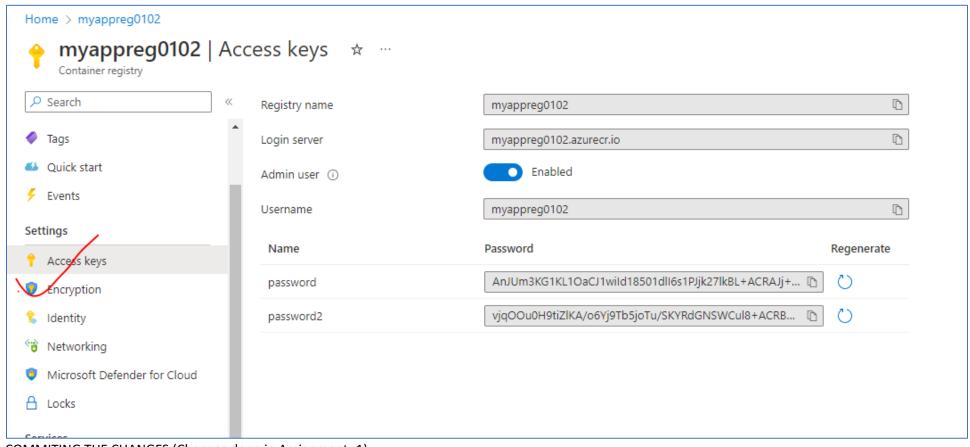
Note

- a. To save file ctrl+s
- b. To exit the editor ctrl +x

ASSIGNMENT-2

- 1. CREATE 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 THE DEPLOY THE SAME IMAGE





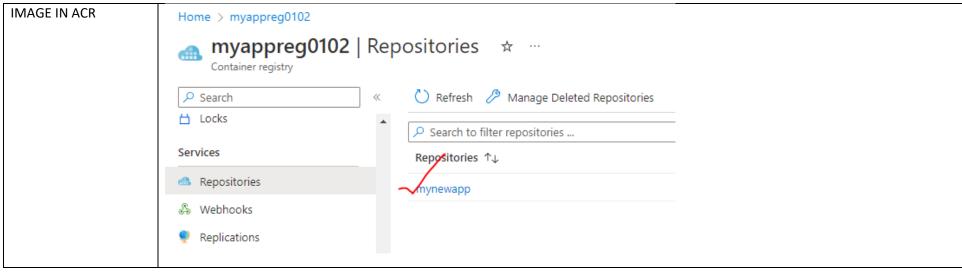
COMMITING THE CHANGES (Changes done in Assignment -1)

```
avishekh@linuxDocker:~$ sudo docker commit myapp myappreg0102.azurecr.io/mynewapp
sha256:28b43dd88ff03c993d2a644f6bac50294529f5b95993f59a69f24930c1c5ab07
avishekh@linuxDocker:~$ sudo docker images
REPOSITORY
                                   TAG
                                             IMAGE ID
                                                             CREATED
                                                                                  SIZE
myappreg0102.azurecr.io/mynewapp
                                             28b43dd88ff0
                                                             About a minute ago
                                                                                  303MB
                                   latest
nginx
                                   latest
                                             a99a39d070bf
                                                             10 days ago
                                                                                  142MB
                                                                                  303MB
                                             0cbc1f535ed8
hshar/webapp
                                   latest
                                                             3 years ago
```

UPLOAD THE IMAGE YOU CREATED IN THIS AZURE TO CONTAINER REGISTRY

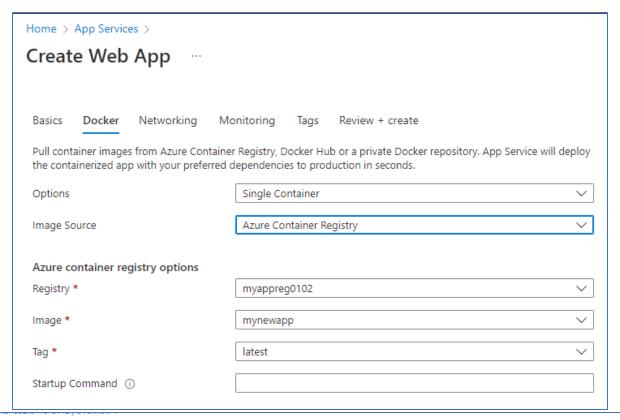
LOGIN TO ACR	sudo docker login <acr_login_server></acr_login_server>
	sudo docker push myappreg0102.azurecr.io/mynewapp

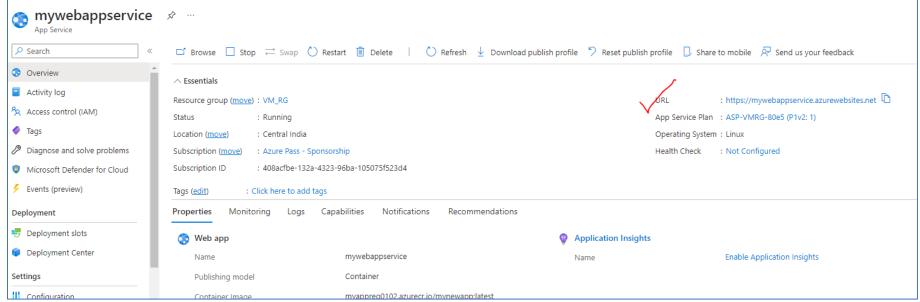
```
avishekh@linuxDocker:~$ sudo docker login myappreg0102.azurecr.io
                  Username: myappreg0102
                  Password:
                  WARNING! Your password will be stored unencrypted in /root/.docker/config.json.
                  Configure a credential helper to remove this warning. See
                  https://docs.docker.com/engine/reference/commandline/login/#credentials-store
                  Login Succeeded
                  avishekh@linuxDocker:~$
                  sudo docker push myappreg0102.azurecr.io/mynewapp
PUSH IMAGE TO ACR
                  avishekh@linuxDocker:~$ sudo docker images
                  REPOSITORY
                                                   TAG
                                                            IMAGE ID
                                                                          CREATED
                                                                                         SIZE
                  myappreg0102.azurecr.io/mynewapp
                                                   latest
                                                            28b43dd88ff0
                                                                          6 minutes ago
                                                                                         303MB
                                                            a99a39d070bf
                                                                          10 days ago
                                                                                         142MB
                  nginx
                                                   latest
                                                   latest
                                                            0cbc1f535ed8
                                                                          3 years ago
                  hshar/webapp
                                                                                         303MB
                  avishekh@linuxDocker:~$ sudo docker push myappreg0102.azurecr.io/mynewapp
                  Using default tag: latest
                  The push refers to repository [myappreg0102.azurecr.io/mynewapp]
                  25e80833b9bc: Pushed
                  f9445cdd87ab: Pushed
                  3e59a52a52d1: Pushed
                  754d8c63561b: Pushed
                  059ad60bcacf: Pushed
                  8db5f072feec: Pushed
                  67885e448177: Pushed
                  ec75999a0cb1: Pushed
                  65bdd50ee76a: Pushed
                  tatest: digest: sha256:683d0c42d1775b19ad967f5992c1938fbdd7357645736a6591e582efabad4047 size: 2193
                  avishekh@linuxDocker:~$
```



CREATE AN APP SERVICE TO THE DEPLOY THE SAME IMAGE

Home > App Services > Create Web App Instance Details Need a database? Try the new Web + Database experience. □ Name * mywebappservice .azurewebsites.net Code Docker Container Static Web App Publish * Linux () Windows Operating System * Region * Central India 1 Not finding your App Service Plan? Try a different region or select your App Service Environment. Pricing plans App Service plan pricing tier determines the location, features, cost and compute resources associated with your app. Learn more 2 Linux Plan (Central India) * (i) (New) ASP-VMRG-80e5 Create new Premium V2 P1v2 (210 total ACU, 3.5 GB memory, 1 vCPU) Pricing plan Explore pricing plans Zone redundancy An App Service plan can be deployed as a zone redundant service in the regions that support it. This is a deployment time only decision. You can't make an App Service plan zone redundant after it has been deployed Learn more & Enabled: Your App Service plan and the apps in it will be zone Zone redundancy redundant. The minimum App Service plan instance count will be three. Disabled: Your App Service Plan and the apps in it will not be zone. redundant. The minimum App Service plan instance count will be one. Next : Docker > Review + create < Previous https://portal.azure.com/#ho





URL – https://mywebappservice.azurewebsites.net/

