

# 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

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

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Compute infrastructure | Virtual machines | Get workload templates for VMs | Clone a selected virtual machine | Show me protected VMs in XXX region

Search

Virtual machines | Get started

Overview | All resources | Infrastructure | Virtual machines (VMSS) | Virtual Machine Scale Set (VMSS) | Compute Fleet | Disks + images | Capacity + placement | Related services | Monitoring + Policy | Help

+ Create | Reservations | Manage view | Refresh | Export to CSV | Open query | Assign tags | Start | Restart | Stop | Group by none

You are viewing a new version of Browse experience. Click here to access the old experience.

Filter for any field... | Subscription equals all | Type equals all | Resource Group equals all | Location equals all | Add filter

Name ↑	Subscription	Resource Group	Location	Status	Operating syst...	Size	Public IP addre...	Disks
docker-vm	Azure subscript...	rg-01	Canada Central	Running	Linux	Standard_D2s_v3	20.151.140.104	1

Showing 1 - 1 of 1. Display count: auto

<https://portal.azure.com/#using Ctrl+Shift+F> | Give feedback

```
azureuser@docker-vm: ~  
* Management: https://landscape.canonical.com  
* Support: https://ubuntu.com/pro  
  
System information as of Wed Jan 28 15:06:31 UTC 2026  
  
System load: 0.34 Processes: 136  
Usage of /: 5.6% of 28.02GB Users logged in: 0  
Memory usage: 3% IPv4 address for eth0: 172.22.0.4  
Swap usage: 0%  
  
* Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s  
just raised the bar for easy, resilient and secure K8s cluster deployment.  
  
https://ubuntu.com/engage/secure-kubernetes-at-the-edge  
  
Expanded Security Maintenance for Applications is not enabled.  
  
0 updates can be applied immediately.  
  
Enable ESM Apps to receive additional future security updates.  
See https://ubuntu.com/esm or run: sudo pro status  
  
The list of available updates is more than a week old.  
To check for new updates run: sudo apt update  
  
The programs included with the Ubuntu system are free software;  
the exact distribution terms for each program are described in the  
individual files in /usr/share/doc/*/copyright.  
  
Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by  
applicable law.  
  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
  
azureuser@docker-vm:~$ sudo apt update  
Hit:1 http://azure.archive.ubuntu.com/ubuntu noble InRelease  
Get:2 http://azure.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]  
Get:3 http://azure.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
```

```
azureuser@docker-vm: ~
Preparing to unpack .../5-dnsmasq-base_2.90-2ubuntu0.1_amd64.deb ...
Unpacking dnsmasq-base (2.90-2ubuntu0.1) ...
Selecting previously unselected package docker.io.
Preparing to unpack .../6-docker.io_28.2.2-0ubuntu1-24.04.1_amd64.deb ...
Unpacking docker.io (28.2.2-0ubuntu1-24.04.1) ...
Selecting previously unselected package ubuntu-fan.
Preparing to unpack .../7-ubuntu-fan_0.12.16+24.04.1_all.deb ...
Unpacking ubuntu-fan (0.12.16+24.04.1) ...
Setting up dnsmasq-base (2.90-2ubuntu0.1) ...
Setting up runc (1.3.3-0ubuntu1-24.04.3) ...
Setting up dns-root-data (2024071801-ubuntu0.24.04.1) ...
Setting up bridge-utils (1.7.1-1ubuntu2) ...
Setting up pigz (2.8-1) ...
Setting up containerd (1.7.28-0ubuntu1-24.04.1) ...
Created symlink /etc/systemd/system/multi-user.target.wants/containerd.service → /usr/lib/systemd/system/containerd.service.
Setting up ubuntu-fan (0.12.16+24.04.1) ...
Created symlink /etc/systemd/system/multi-user.target.wants/ubuntu-fan.service → /usr/lib/systemd/system/ubuntu-fan.service.
Setting up docker.io (28.2.2-0ubuntu1-24.04.1) ...
info: Selecting GID from range 100 to 999 ...
info: Adding group 'docker' (GID 114) ...
Created symlink /etc/systemd/system/multi-user.target.wants/docker.service → /usr/lib/systemd/system/docker.service.
Created symlink /etc/systemd/system/sockets.target.wants/docker.socket → /usr/lib/systemd/system/docker.socket.
Processing triggers for dbus (1.14.10-4ubuntu4.1) ...
Processing triggers for man-db (2.12.0-4build2) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
azureuser@docker-vm:~$ sudo systemctl start docker
sudo systemctl enable docker
azureuser@docker-vm:~$ docker --version
Docker version 28.2.2, build 28.2.2-0ubuntu1-24.04.1
azureuser@docker-vm:~$
```

```
azureuser@docker-vm:~$ docker pull hshar/webapp
Using default tag: latest
permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Post "http://%2Fvar%2Frun%2Fdocker.sock/v1.50/images/create?fromImage=docker.io%2Fhshar%2Fwebapp&tag=latest": dial unix /var/run/docker.sock: connect: permission denied
azureuser@docker-vm:~$ sudo usermod -aG docker azureuser
azureuser@docker-vm:~$ newgrp docker
azureuser@docker-vm:~$ docker ps
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS   NAMES
azureuser@docker-vm:~$ docker pull hshar/webapp
Using default tag: latest
latest: Pulling from hshar/webapp
a48c500ed24e: Pull complete
1e1de0ff7e1: 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
azureuser@docker-vm:~$
```

## Creating a New File in the Repository

```
azureuser@docker-vm:~$ docker pull hshar/webapp
Using default tag: latest
permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Post "http://%2Fvar%2Frun%2Fdocker.sock/v1.50/images/create?fromImage=docker.io%2Fhshar%2Fwebapp&tag=latest": dial unix /var/run/docker.sock: connect: permission denied
azureuser@docker-vm:~$ sudo usermod -aG docker azureuser
azureuser@docker-vm:~$ newgrp docker
azureuser@docker-vm:~$ docker ps
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS   NAMES
azureuser@docker-vm:~$ docker pull hshar/webapp
Using default tag: latest
latest: Pulling from hshar/webapp
a48c500ed24e: Pull complete
1e1de0ff7e1: 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
azureuser@docker-vm:~$ docker run -it --name webapp_container hshar/webapp /bin/bash
root@a9d54a88025c:/# touch azure_project.txt
root@a9d54a88025c:/# echo "Azure Docker Project File" > azure_project.txt
root@a9d54a88025c:/# ls
azure_project.txt  bin  boot  dev  etc  home  lib  lib64  media  mnt  opt  proc  root  run  sbin  srv  sys  tmp  usr  var
root@a9d54a88025c:/# exit
exit
azureuser@docker-vm:~$ docker commit webapp_container hshar/webapp:azure-project
sha256:5ac12a35f13f5a8e96a0ad1080531bd78b8d3b62a69c32dda27dd2
azureuser@docker-vm:~$ docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
hshar/webapp  azure-project  5ac12a35f13f  5 seconds ago  303MB
hshar/webapp  latest      0cbc1f535ed8  6 years ago   303MB
azureuser@docker-vm:~$
```

## 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

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Home >

### Container registries

Default Directory (ankithak990@gmail.onmicrosoft.com)

Validate AKS connectivity for these ACRs Run Canpull diagnostics for selected registries Test ACR access from AKS clusters in this list

+ Create Manage view Refresh Export to CSV Open query Assign tags Add to service group Group by none

You are viewing a new version of Browse experience. Click here to access the old experience.

Filter for any field... Subscription equals all Resource Group equals all Location equals all Add filter

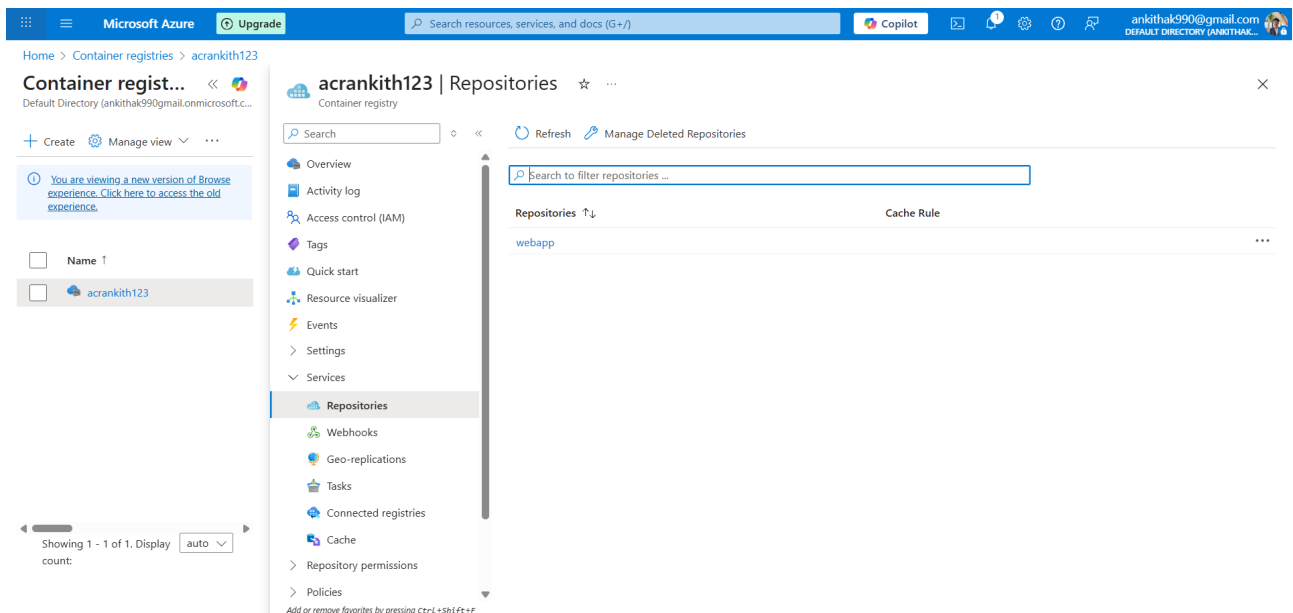
Name	Type	Resource Group	Location	Subscription
acrankith123	Container registry	rg-01	Canada Central	Azure subscription 1

Showing 1 - 1 of 1. Display count: auto Give feedback

```
azureuser@docker-vm: ~$ sudo usermod -aG docker azureuser
azureuser@docker-vm:~$ newgrp docker
azureuser@docker-vm:~$ docker ps
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS   NAMES
azureuser@docker-vm:~$ 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
0b44ba487617: 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
azureuser@docker-vm:~$ docker run -it --name webapp_container hshar/webapp /bin/bash
root@a9d54a88025c:/# touch azure_project.txt
root@a9d54a88025c:/# echo "Azure Docker Project File" > azure_project.txt
root@a9d54a88025c:/# ls
azure_project.txt  bin  boot  dev  etc  home  lib  lib64  media  mnt  opt  proc  root  run  sbin  srv  sys  tmp  usr  var
root@a9d54a88025c:/# exit
exit
azureuser@docker-vm:~$ docker commit webapp_container hshar/webapp:azure-project
sha256:5ac12a35f13fbea71bd5e84a8e96a0ad1080531bd78b8d3b62a69c32dda27dd2
azureuser@docker-vm:~$ docker images
REPOSITORY    TAG       IMAGE ID   CREATED   SIZE
hshar/webapp  azure-project  5ac12a35f13f  5 seconds ago  303MB
hshar/webapp  latest      0cbc1f535ed8  6 years ago  303MB
azureuser@docker-vm:~$ docker login acrankith123.azurecr.io
Username: acrankith123
Password:
WARNING! Your credentials are stored unencrypted in '/home/azureuser/.docker/config.json'.
Configure a credential helper to remove this warning. See
https://docs.docker.com/go/credential-store/

Login Succeeded
azureuser@docker-vm:~$ |
```

```
azureuser@docker-vm: ~  
azureuser@docker-vm:~$ docker login acrankith123.azurecr.io  
Authenticating with existing credentials... [Username: acrankith123]  
  
Info → To login with a different account, run 'docker logout' followed by 'docker login'  
  
Login Succeeded  
azureuser@docker-vm:~$ docker tag hshar/webapp:azure-project acrankith123.azurecr.io/webapp:v1  
azureuser@docker-vm:~$ docker push acrankith123.azurecr.io/webapp:v1  
The push refers to repository [acrankith123.azurecr.io/webapp]  
e7b5320c0cae: Pushed  
f9445cdd87ab: Pushed  
3e59a52a52d1: Pushed  
754d8c63561b: Pushed  
059ad60bcacf: Pushed  
8db5f072feec: Pushed  
67885e448177: Pushed  
ec75999a0cb1: Pushed  
65bdd50ee76a: Pushed  
v1: digest: sha256:4cb486a7471ald358d6fb5dcbccfda619646df720fcda57aa02a7c6e16de1aa size: 2192  
azureuser@docker-vm:~$ docker push acrankith123.azurecr.io/webapp:v1  
The push refers to repository [acrankith123.azurecr.io/webapp]  
e7b5320c0cae: Layer already exists  
f9445cdd87ab: Layer already exists  
3e59a52a52d1: Layer already exists  
754d8c63561b: Layer already exists  
059ad60bcacf: Layer already exists  
8db5f072feec: Layer already exists  
67885e448177: Layer already exists  
ec75999a0cb1: Layer already exists  
65bdd50ee76a: Layer already exists  
v1: digest: sha256:4cb486a7471ald358d6fb5dcbccfda619646df720fcda57aa02a7c6e16de1aa size: 2192  
azureuser@docker-vm:~$
```



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Home > Container registries > acrankith123 | Repositories >

### acrankith123 | Repositories

Container registry

Search

Refresh

Search to filter repositories ...

Repositories ↑↓

webapp

### webapp

Repository

Refresh Start artifact streaming Manage deleted artifacts Delete repository

#### Essentials

Repository	webapp	Tag count	1
Last updated date	1/28/2026, 8:55 PM GMT+5:30	Manifest count	1

Search to filter tags ...

Tags ↑↓	Digest ↑↓	Last modified
v1	sha256:4cb486a7471a1d358d6fb5dcbccfda6196...	1/28/2026, 8:55 PM GMT+5:30

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## Create an App Service to Deploy the Same Image

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Home > Create a resource >

### Create Web App

#### Project details

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

Subscription \* Azure subscription 1

Resource Group \* rg-01

Create new

#### Instance Details

Name webapp-docker-demo

-cha5e4apdyhwbkcx.canadacentral-01.azurewebsites.net

Secure unique default hostname on. More about this update

Publish \* Code Container

Operating System \* Linux Windows

Region \* Canada Central

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

#### Pricing plans

App Service also pricing tier determines the location, features, cost and compute resources associated with your app.

Review + create Previous Next : Database >

Microsoft Azure

Upgrade

Search resources, services, and docs (G+)

Copilot

ankithak990@gmail.com  
DEFAULT DIRECTORY (ANKITHAK...)

Home > Create a resource >

Create Web App

Name \*

acrdevopsdemo

Azure container registry options

Registry \*

acrankith123

Authentication \*

Managed identity

Admin credentials

Identity \*

(New) ua-id-b479

When using managed identity, image and tag fields will not auto populate. Please manually enter the image and tag below.

Image \*

webapp

Tag \*

v1

Port

80

Startup Command ⓘ

Example: /bin/bash; -c; echo hello; sleep 10000

Review + create

< Previous

Next : Networking >

Microsoft Azure

Upgrade

Search resources, services, and docs (G+)

Copilot

ankithak990@gmail.com  
DEFAULT DIRECTORY (ANKITHAK...)

Home > App Services >

App Services

Default Directory (ankithak990@gmail.onmicrosoft.com...)

+ Create

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Name ↑

webapp-docker-demo

webapp-docker-demo123

Showing 1 - 2 of 2. Display count: auto

webapp-docker-demo123

Web App

Search

Browse

Stop

Swap

Restart

Delete

Refresh

Download publish profile

Reset publish profile

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Microsoft Defender for Cloud

Events (preview)

Log stream

Resource visualizer

Deployment

Settings

Performance

App Service plan

Development Tools

API

Monitoring

Automation

Essentials

Resource group (move)  
rg-01

Status  
Running

Location (move)  
Canada Central

Subscription (move)  
Azure subscription 1

Subscription ID  
dd12d810-7a12-4ebd-9467-2d502b9116fb

Tags (edit)  
Add tags

Default domain  
webapp-docker-demo123-fgava2dpd8eafddg.canadacentral-01.az...

App Service Plan  
ASP-rg01-a656 (B1: 1)

Operating System  
Linux

Health Check  
Not Configured

Properties

Monitoring

Logs

Capabilities

Notifications (0)

Recommendations

Web app

Name  
webapp-docker-demo123

Publishing model  
Container

Container Image  
acrankith123.azurecr.io/webappv1