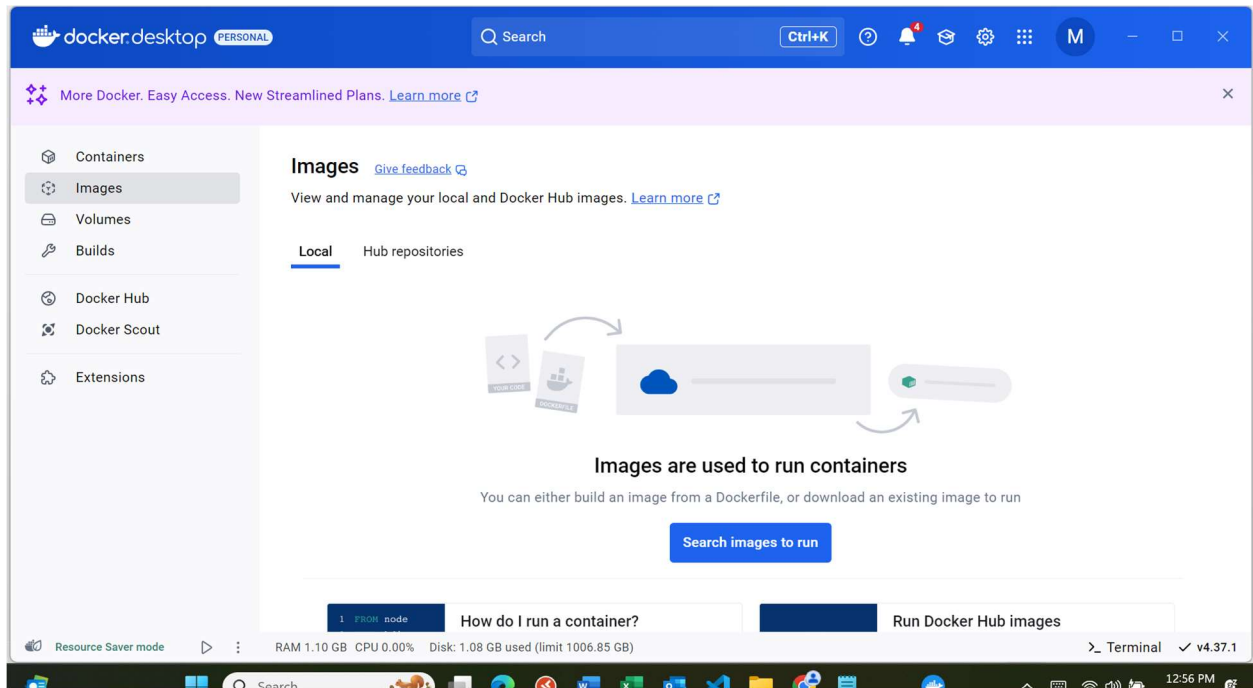
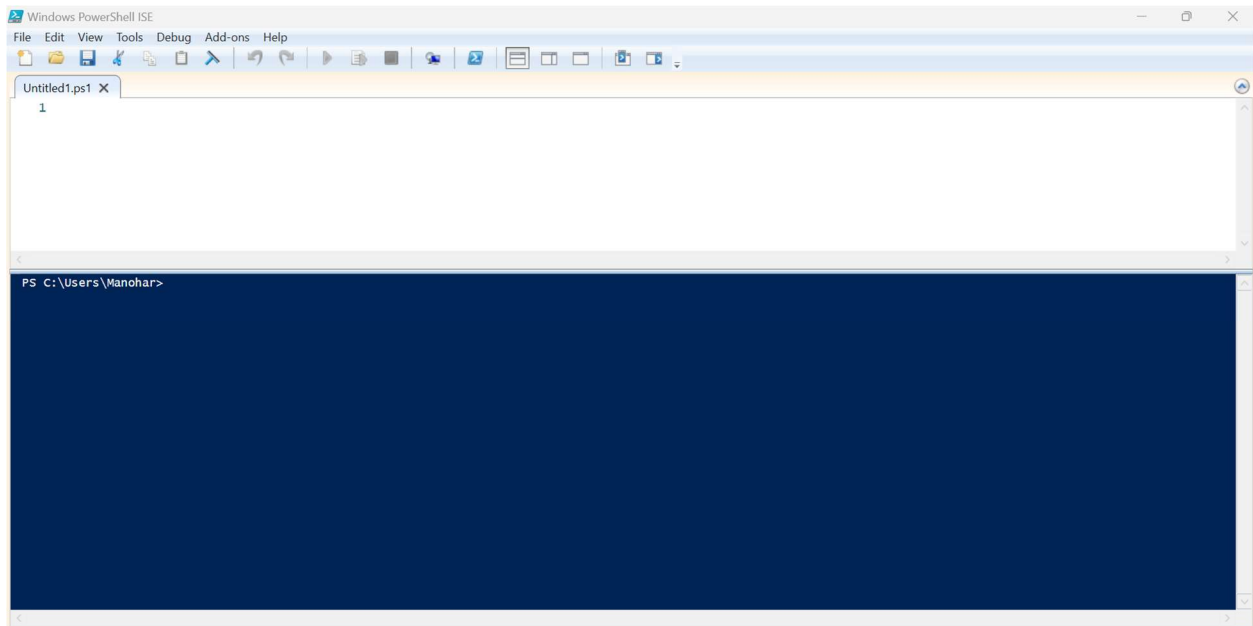


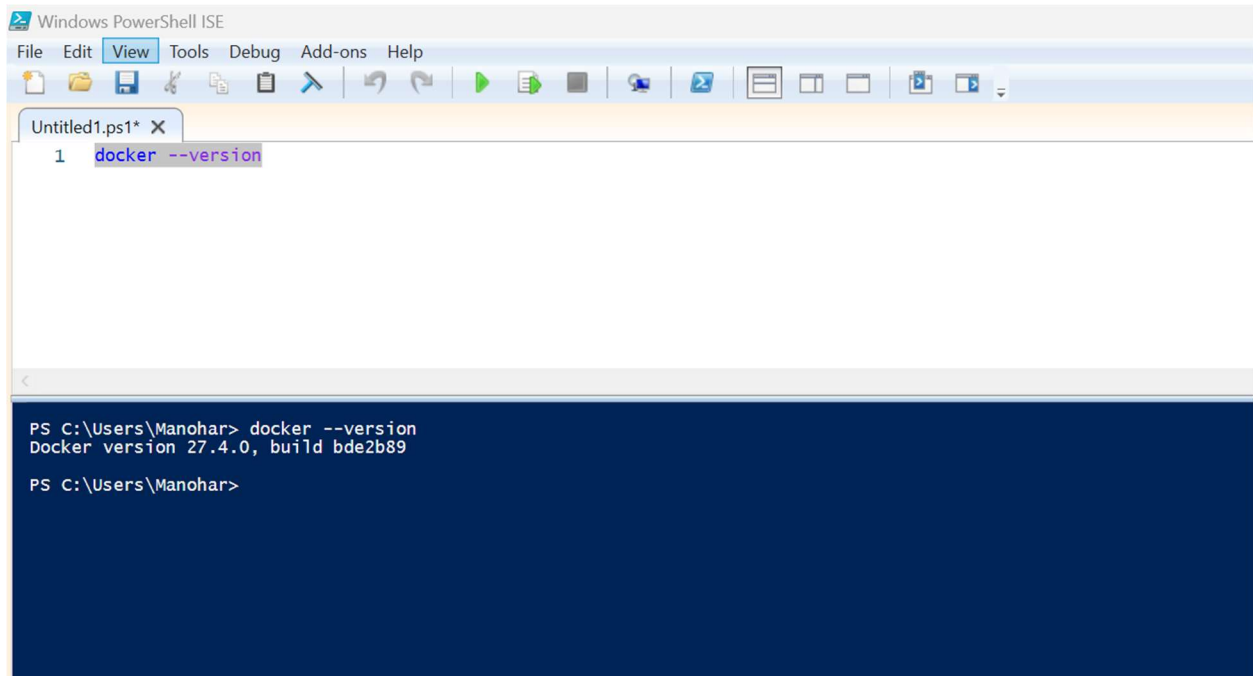
Install docker desktop and sign in to docker desktop



Open PowerShell



Check the docker version



Windows PowerShell ISE

File Edit View Tools Debug Add-ons Help

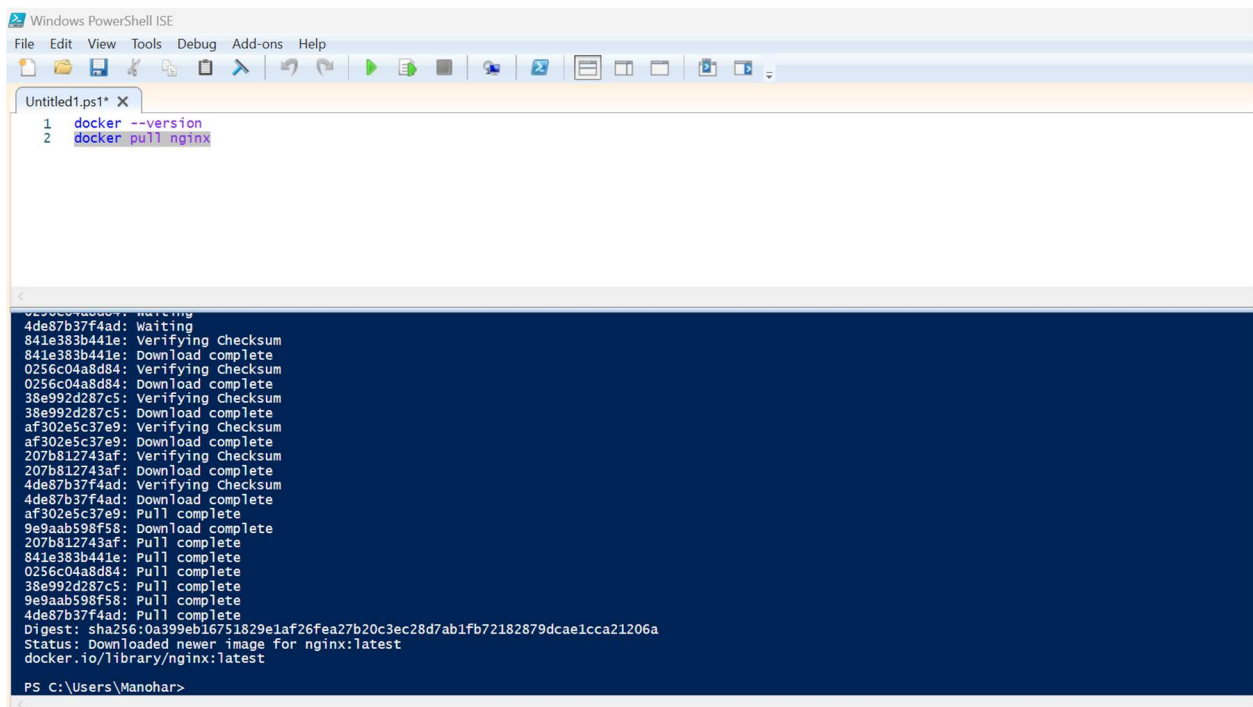
Untitled1.ps1* X

```
1 docker --version
```

PS C:\Users\Manohar> docker --version
Docker version 27.4.0, build bde2b89

PS C:\Users\Manohar>

Pull nginx image from docker hub



Windows PowerShell ISE

File Edit View Tools Debug Add-ons Help

Untitled1.ps1* X

```
1 docker --version  
2 docker pull nginx
```

4de87b37f4ad: Waiting
841e383b441e: Verifying Checksum
841e383b441e: Download complete
0256c04a8d84: Verifying Checksum
0256c04a8d84: Download complete
38e992d287c5: Verifying Checksum
38e992d287c5: Download complete
af302e5c37e9: Verifying Checksum
af302e5c37e9: Download complete
207b812743af: Verifying Checksum
207b812743af: Download complete
4de87b37f4ad: Verifying Checksum
4de87b37f4ad: Download complete
af302e5c37e9: Pull complete
9e9aab598f58: Download complete
207b812743af: Pull complete
841e383b441e: Pull complete
0256c04a8d84: Pull complete
38e992d287c5: Pull complete
9e9aab598f58: Pull complete
4de87b37f4ad: Pull complete
Digest: sha256:0a399eb16751829e1af26fea27b20c3ec28d7ab1fb72182879dcae1cca21206a
Status: Downloaded newer image for nginx:latest
docker.io/library/nginx:latest

PS C:\Users\Manohar>

Check the downloaded image

```
Windows PowerShell ISE
File Edit View Tools Debug Add-ons Help
Untitled1.ps1* X
1 docker --version
2 docker pull nginx
3 docker images

38e992d287c5: Verifying Checksum
38e992d287c5: Download complete
af302e5c37e9: Verifying Checksum
af302e5c37e9: Download complete
207b812743af: Verifying Checksum
207b812743af: Download complete
4de87b37f4ad: Verifying Checksum
4de87b37f4ad: Download complete
af302e5c37e9: Pull complete
9e9aab598f58: Download complete
207b812743af: Pull complete
841e383b441e: Pull complete
0256c04a8d84: Pull complete
38e992d287c5: Pull complete
9e9aab598f58: Pull complete
4de87b37f4ad: Pull complete
Digest: sha256:0a399eb16751829e1af26fea27b20c3ec28d7ab1fb72182879dcae1cca21206a
Status: Downloaded newer image for nginx:latest
docker.io/library/nginx:latest

PS C:\Users\Manohar> docker images
REPOSITORY    TAG       IMAGE ID      CREATED        SIZE
nginx         latest    9bea9f2796e2  7 weeks ago   192MB

PS C:\Users\Manohar>
```

Run the container

```
Windows PowerShell ISE
File Edit View Tools Debug Add-ons Help

Untitled1.ps1* X
1 docker --version
2 docker pull nginx
3 docker images
4 docker run -it --p 8080:80 nginx

PS C:\Users\Manohar> docker run -it -p 8080:80 nginx
/docker-entrypoint.sh: /docker-entrypoint.d/ is not empty, will attempt to perform configuration
/docker-entrypoint.sh: Looking for shell scripts in /docker-entrypoint.d/
/docker-entrypoint.sh: Launching /docker-entrypoint.d/10-listen-on-ipv6-by-default.sh
10-listen-on-ipv6-by-default.sh: info: Getting the checksum of /etc/nginx/conf.d/default.conf
10-listen-on-ipv6-by-default.sh: info: Enabled listen on IPv6 in /etc/nginx/conf.d/default.conf
/docker-entrypoint.sh: Sourcing /docker-entrypoint.d/15-local-resolvers.envsh
/docker-entrypoint.sh: Launching /docker-entrypoint.d/20-envsubst-on-templates.sh
/docker-entrypoint.sh: Launching /docker-entrypoint.d/30-tune-worker-processes.sh
/docker-entrypoint.sh: Configuration complete; ready for start up
2025/01/21 07:30:01 [notice] 1#1: using the "epoll" event method
2025/01/21 07:30:01 [notice] 1#1: nginx/1.27.3
2025/01/21 07:30:01 [notice] 1#1: built by gcc 12.2.0 (Debian 12.2.0-14)
2025/01/21 07:30:01 [notice] 1#1: OS: Linux 5.15.153.1-microsoft-standard-WSL2
2025/01/21 07:30:01 [notice] 1#1: getrlimit(RLIMIT_NOFILE): 1048576:1048576
2025/01/21 07:30:01 [notice] 1#1: start worker processes
2025/01/21 07:30:01 [notice] 1#1: start worker process 29
2025/01/21 07:30:01 [notice] 1#1: start worker process 30
2025/01/21 07:30:01 [notice] 1#1: start worker process 31
2025/01/21 07:30:01 [notice] 1#1: start worker process 32
2025/01/21 07:30:01 [notice] 1#1: start worker process 33
2025/01/21 07:30:01 [notice] 1#1: start worker process 34
2025/01/21 07:30:01 [notice] 1#1: start worker process 35
2025/01/21 07:30:01 [notice] 1#1: start worker process 36
```

Access it locally

The screenshot shows the Docker Desktop interface. On the left, a sidebar contains navigation options: Containers, Images, Volumes, Builds, Docker Hub, Docker Scout, and Extensions. The main area is titled 'Containers' and displays system metrics: 'Container CPU usage: 0.00% / 800% (8 CPUs available)' and 'Container memory usage: 10.21MB / 7.46GB'. Below these metrics is a table of running containers. The table has columns for Name, Container ID, Image, Port(s), CPU (%), Last star, and Actions. One container is listed: 'pedantic_liskov' with ID 'c480c3f5d40a', image 'nginx', and port mapping '8080:80'. The bottom status bar indicates 'Engine running', 'RAM 1.15 GB', 'CPU 0.25%', 'Disk: 1.28 GB used (limit 1006.85 GB)', and version 'v4.37.1'.

Name	Container ID	Image	Port(s)	CPU (%)	Last star	Actions
pedantic_liskov	c480c3f5d40a	nginx	8080:80	0%	25 secon	[Stop] [Refresh] [Delete]

Localhost:8080



Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.

Create azure container registry

Microsoft Azure

Search resources, services, and docs (G+/)

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

Create container registry

...

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 *

Manohar Subscription

Resource group *

Demo-RG

[Create new](#)

Instance details

Registry name *

nginxcontainerregistry

.azurecr.io

Location *

Central India

Use availability zones ⓘ

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

Pricing plan * ⓘ

Standard

Review + create

< Previous

Next: Networking >

portal.azure.com/#view/HubsExtension/DeploymentDetailsBlade/~/_/overview/id/%2Fsubscriptions%2F32aeb345-c46e-4708-be87-491dbf8d...

Microsoft Azure

Search resources, services, and docs (G+/)

Copilot

maha

DEFU

Home >

Microsoft.ContainerRegistry | Overview

Deployment

Search

Delete

Cancel

Redeploy

Download

Refresh

Overview

Inputs

Outputs

Template

✓ Your deployment is complete

Deployment name : Microsoft.ContainerRegistry

Subscription : Manohar Subscription

Resource group : Demo-RG

Start time : 1/21/2025, 1:02:15 PM

Correlation ID : 9c7b0f4d-21d7-4e09-9ee2-824bb11fdcf6

> Deployment details

> Next steps

Go to resource

Give feedback

Tell us about your experience with deployment

Cost management

Get notified to stay on track and prevent unexpected costs.

Set up cost alerts >

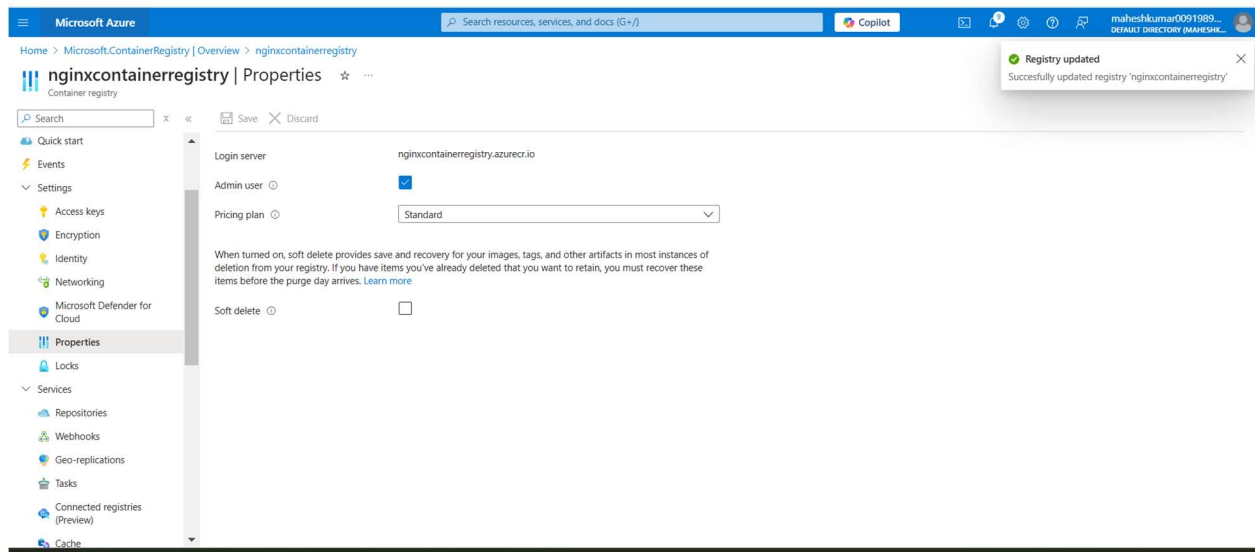
Microsoft Defender

Secure your apps and data.

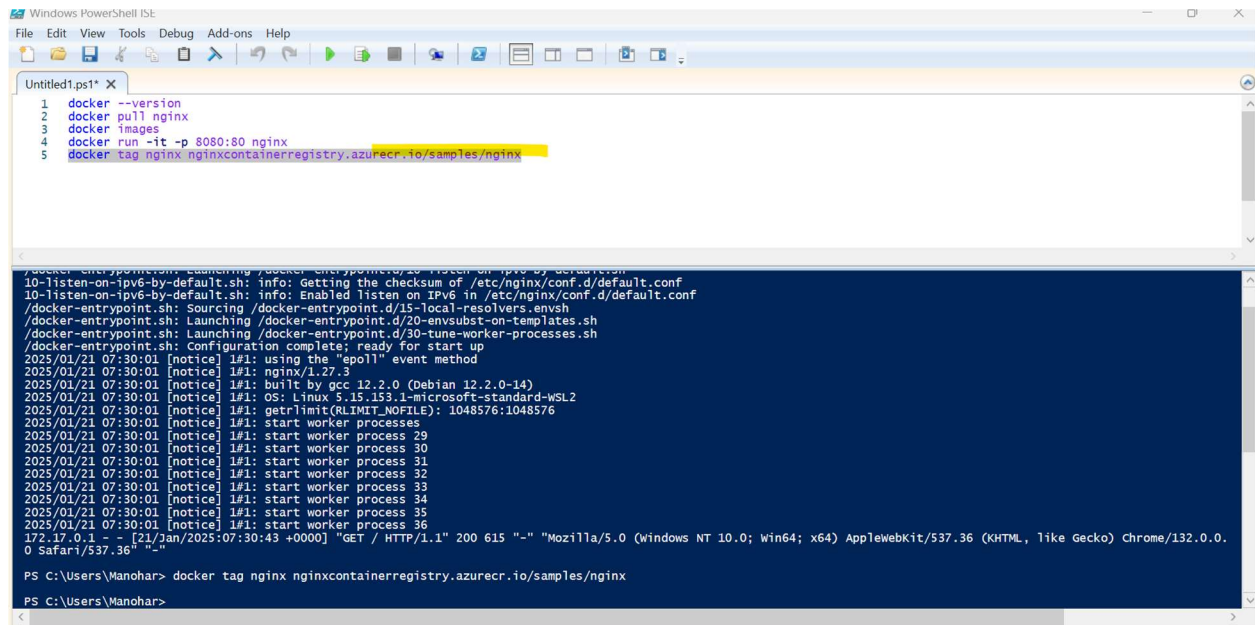
Go to Microsoft Defender >

Free Microsoft tutorials

Enable admin user in properties



Tag the docker image



```
Windows PowerShell ISE
File Edit View Tools Debug Add-ons Help
Untitled1.ps1* X
1 docker --version
2 docker pull nginx
3 docker images
4 docker run -it -p 8080:80 nginx
5 docker tag nginx nginxcontainerregistry.azurecr.io/samples/nginx

PS C:\Users\Manohar> docker images
REPOSITORY                                TAG      IMAGE ID      CREATED        SIZE
nginx                                      latest   9bea9f2796e2   7 weeks ago    192MB
nginxcontainerregistry.azurecr.io/samples/nginx latest   9bea9f2796e2   7 weeks ago    192MB

PS C:\Users\Manohar>
```

Login to azure

```
Windows PowerShell ISE
File Edit View Tools Debug Add-ons Help
Untitled1.ps1* X
1 docker --version
2 docker pull nginx
3 docker images
4 docker run -it -p 8080:80 nginx
5 docker tag nginx nginxcontainerregistry.azurecr.io/samples/nginx
6 az login

PS C:\Users\Manohar> az login
az : WARNING: Select the account you want to log in with. For
At line:1 char:1
+ az login
+ ~~~~~
+ CategoryInfo          : NotSpecified: (WARNING: Select.
+ FullyQualifiedErrorId : NativeCommandError

Running cmdlet /selection. Press Ctrl+Break to stop. Press Ctrl+P to break into debugger.
In 43 Col 1
```

Sign in

Let's get you signed in

Use one of these accounts

- Manohar@kyndryl.com
Work or school account
- yyy3u83@navistar.com
Work or school account
- manohar.oberoi@aecom.com
Work or school account
- maheshkumar0091989@gmail.com**
Microsoft account

Use a different account

Microsoft account

Continue


```
Windows PowerShell ISE
File Edit View Tools Debug Add-ons Help
Untitled1.ps1* X
1 docker --version
2 docker pull nginx
3 docker images
4 docker run -it -p 8080:80 nginx
5 docker tag nginx nginxcontainerregistry.azurecr.io/samples/nginx
6 az login

{
  "name": "maheshkumar0091989@gmail.com",
  "type": "user"
},
{
  "cloudName": "AzureCloud",
  "homeTenantId": "c7d81a20-050a-460f-bcd6-e599378636e0",
  "id": "a8fa8487-8fc3-41e4-a428-f5de46c74f19",
  "isDefault": false,
  "managedByTenants": [],
  "name": "Subscription-1",
  "state": "Enabled",
  "tenantDefaultDomain": "maheshkumar0091989gmail.onmicrosoft.com",
  "tenantDisplayName": "Default Directory",
  "tenantId": "c7d81a20-050a-460f-bcd6-e599378636e0",
  "user": {
    "name": "maheshkumar0091989@gmail.com",
    "type": "user"
  }
}
]
PS C:\Users\Manohar>
```

Completed | Ln 82 Col 22

Login to azure container registry

```
Windows PowerShell ISE
File Edit View Tools Debug Add-ons Help
Untitled1.ps1* X
1 docker --version
2 docker pull nginx
3 docker images
4 docker run -it -p 8080:80 nginx
5 docker tag nginx nginxcontainerregistry.azurecr.io/samples/nginx
6 az login
7 az acr login --name nginxcontainerregistry

{
  "name": "maheshkumar0091989@gmail.com",
  "type": "user"
},
{
  "cloudName": "AzureCloud",
  "homeTenantId": "c7d81a20-050a-460f-bcd6-e599378636e0",
  "id": "a8fa8487-8fc3-41e4-a428-f5de46c74f19",
  "isDefault": false,
  "managedByTenants": [],
  "name": "Subscription-1",
  "state": "Enabled",
  "tenantDefaultDomain": "maheshkumar0091989gmail.onmicrosoft.com",
  "tenantDisplayName": "Default Directory",
  "tenantId": "c7d81a20-050a-460f-bcd6-e599378636e0",
  "user": {
    "name": "maheshkumar0091989@gmail.com",
    "type": "user"
  }
}
]
PS C:\Users\Manohar> az acr login --name nginxcontainerregistry
Login Succeeded
PS C:\Users\Manohar>
```

Push the nginx image to the azure container registry

```
Windows PowerShell ISE
File Edit View Tools Debug Add-ons Help

Untitled1.ps1* X
1 docker --version
2 docker pull nginx
3 docker images
4 docker run -it -p 8080:80 nginx
5 docker tag nginx nginxcontainerregistry.azurecr.io/samples/nginx
6 az login
7 az acr login --name nginxcontainerregistry
8 docker push nginxcontainerregistry.azurecr.io/samples/nginx

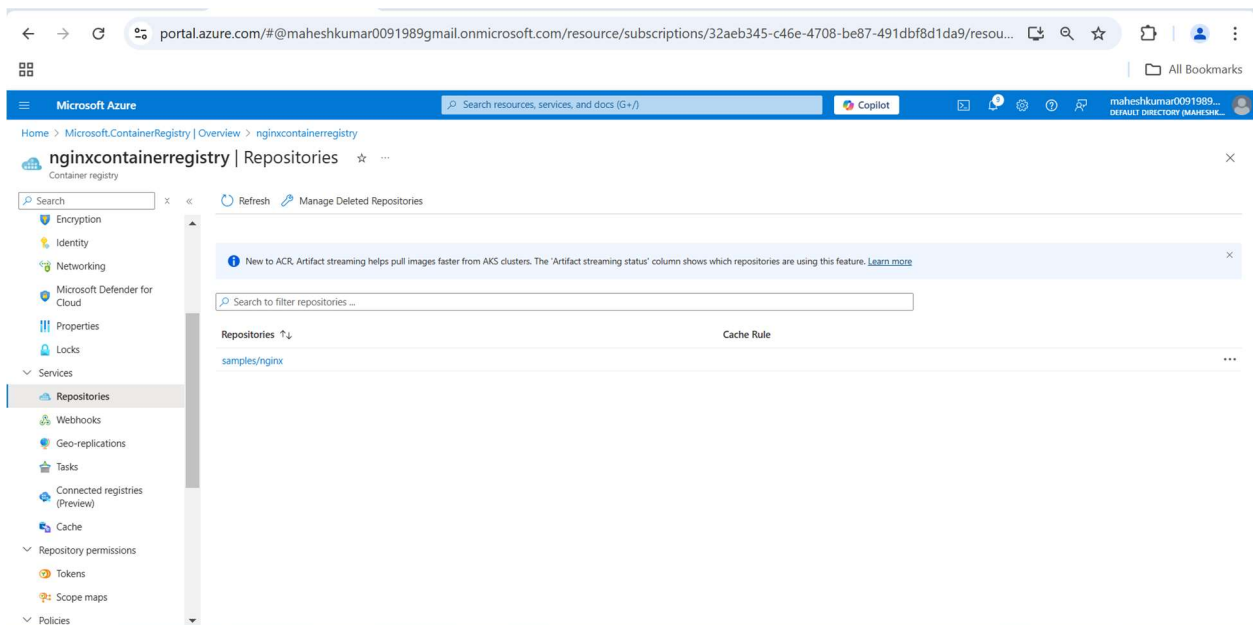
PS C:\Users\Manohar> az acr login --name nginxcontainerregistry
Login Succeeded

PS C:\Users\Manohar> docker push nginxcontainerregistry.azurecr.io/samples/nginx
Using default tag: latest
The push refers to repository [nginxcontainerregistry.azurecr.io/samples/nginx]
b57b5eac2941: Preparing
58045dd06e5b: Preparing
541cf9cf006d: Preparing
32c977818204: Preparing
943132143199: Preparing
88ebb510d2fb: Preparing
f5fe472da253: Preparing
88ebb510d2fb: Waiting
f5fe472da253: Waiting
32c977818204: Pushed
b57b5eac2941: Pushed
58045dd06e5b: Pushed
541cf9cf006d: Pushed
943132143199: Pushed
f5fe472da253: Pushed
88ebb510d2fb: Pushed
latest: digest: sha256:e49b2893e997eeda7716bd7f3b2ed60aac69faa4041a4a3b88fb885609703cbb size: 1778

PS C:\Users\Manohar>
```

Completed

Image is pushed successfully to the azure container registry



Create azure container instance & in the source image choose the image which we pushed to the container registry

Microsoft Azure

Search resources, services, and docs (G+/f)

Copilot

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

Create container instance

Basics

Networking

Monitoring

Advanced

Tags

Review + create

Azure Container Instances (ACI) allows you to quickly and easily run containers on Azure without managing servers or having to learn new tools. ACI offers per-second billing to minimize the cost of running containers on the cloud.
[Learn more about Azure Container Instances](#)

Project details

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

Subscription *

Manohar Subscription

Resource group *

Demo-RG

[Create new](#)

Container details

Container name *

nginxcontainer

Region *

(Asia Pacific) Central India

Availability zones (Preview)

None

SKU

Standard

Standard SKU is available for all regions. Confidential SKU is only available for

Review + create

< Previous

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portal.azure.com/#create/Microsoft.ContainerInstances

Microsoft Azure

Search resources, services, and docs (G+/I)

Copilot

Home > Container instances >

Create container instance

Image source *

☐ Quickstart images

☒ Azure Container Registry

☐ Other registry

Run with Azure Spot discount

☐

Spot containers are not available in the selected region. [Learn more](#)

Registry *

nginxcontainerregistry

If you do not see your Azure Container Registry, ensure you have been assigned the Reader Role for the Azure Container Registry or select an Azure Container Registry in a different subscription. [Learn more](#)

Image *

samples/nginx

Image tag *

latest

OS type

Linux

Size *

1 vcpu, 1.5 GiB memory, 0 gpus

[Change size](#)

Review + create

< Previous

Next: Networking >

Microsoft Azure

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Tags

Review + create

Basics

Subscription

Manohar Subscription

Resource group

Demo-RG

Region

Central India

Container name

nginxcontainer

SKU

Standard

Image type

Private

Image registry login server

nginxcontainerregistry.azurecr.io

Image

nginxcontainerregistry.azurecr.io/samples/nginx:latest

Image registry user name

nginxcontainerregistry

OS type

Linux

Memory (GiB)

1.5

Number of CPU cores

1

GPU type (preview)

None

GPU count

0

Networking

Networking type

Public

Create

< Previous

Next >

[Download a template for automation](#)

Deployment is complete.

The screenshot shows the Azure portal interface for a deployment. The main heading is "Microsoft.ContainerInstances-20250121130855 | Overview". The deployment status is "Your deployment is complete". Key details include:

- Deployment name: Microsoft.ContainerInstances-20250121130855
- Subscription: Manohar Subscription
- Resource group: Demo-RG
- Start time: 1/21/2025, 1:10:34 PM
- Correlation ID: aa85812d-4e47-456a-a2f8-1f8945f9d8b0

On the right sidebar, there are several recommendations:

- Cost management:** Get notified to stay within your budget and prevent unexpected charges on your bill. [Set up cost alerts >](#)
- Microsoft Defender for Cloud:** Secure your apps and infrastructure. [Go to Microsoft Defender for Cloud >](#)
- Free Microsoft tutorials:** [Start learning today >](#)
- Work with an expert:** Azure experts are service provider partners who can help manage your assets on Azure and be your first line of support. [Find an Azure expert >](#)

Copy the public ip of the container instance and pasted on the browser and we are able to see the nginx default page.

The screenshot shows the Azure portal interface for a container instance named "nginxcontainer". The main heading is "nginxcontainer | Overview". The status is "Running". Key details include:

- Resource group: Demo-RG
- Status: Running
- Location: Central India
- Subscription: Manohar Subscription
- Subscription ID: 32aeb345-c46e-4708-be87-491dbf8d1da9
- Tags: Add tags
- SKU: Standard
- OS type: Linux
- IP address (Public): 20.244.69.43
- FQDN: ---
- Container count: 1

Below the essentials, there are three monitoring charts:

- CPU:** CPU Usage (Avg.) nginxcontainer
- Memory:** Memory Usage (Avg.) nginxcontainer
- Network:** Network Bytes Received Per Second (Avg.) nginxcontainer



Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.

Now we are done so we will go ahead and delete all the resources.

Remove the container

```
Windows PowerShell ISE
File Edit View Tools Debug Add-ons Help
Untitled1.ps1* X
8 docker push nginxcontainerregistry.azurecr.io/samples/nginx
9 docker container list
10 docker stop c480c3f5d40a
11 docker remove c480c3f5d40a

PS C:\Users\Manohar> docker remove c480c3f5d40a
c480c3f5d40a
PS C:\Users\Manohar>
```

Remove the nginx image

```
Windows PowerShell ISE
File Edit View Tools Debug Add-ons Help

Untitled1.ps1* X
8 docker push nginxcontainerregistry.azurecr.io/samples/nginx
9 docker container list
10 docker stop c480c3f5d40a
11 docker remove c480c3f5d40a
12 docker rmi nginx

PS C:\Users\Manohar> docker remove c480c3f5d40a
c480c3f5d40a

PS C:\Users\Manohar> docker container list
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS        NAMES

PS C:\Users\Manohar> docker rmi nginx
Untagged: nginx:latest
Untagged: nginx@sha256:0a399eb16751829e1af26fea27b20c3ec28d7ab1fb72182879dcae1cca21206a

PS C:\Users\Manohar>
```

```
Windows PowerShell ISE
File Edit View Tools Debug Add-ons Help

Untitled1.ps1* X
8 docker push nginxcontainerregistry.azurecr.io/samples/nginx
9 docker container list
10 docker stop c480c3f5d40a
11 docker remove c480c3f5d40a
12 docker rmi nginx
13 docker rmi nginxcontainerregistry.azurecr.io/samples/nginx

PS C:\Users\Manohar> docker remove c480c3f5d40a
c480c3f5d40a

PS C:\Users\Manohar> docker container list
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS        NAMES

PS C:\Users\Manohar> docker rmi nginx
Untagged: nginx:latest
Untagged: nginx@sha256:0a399eb16751829e1af26fea27b20c3ec28d7ab1fb72182879dcae1cca21206a

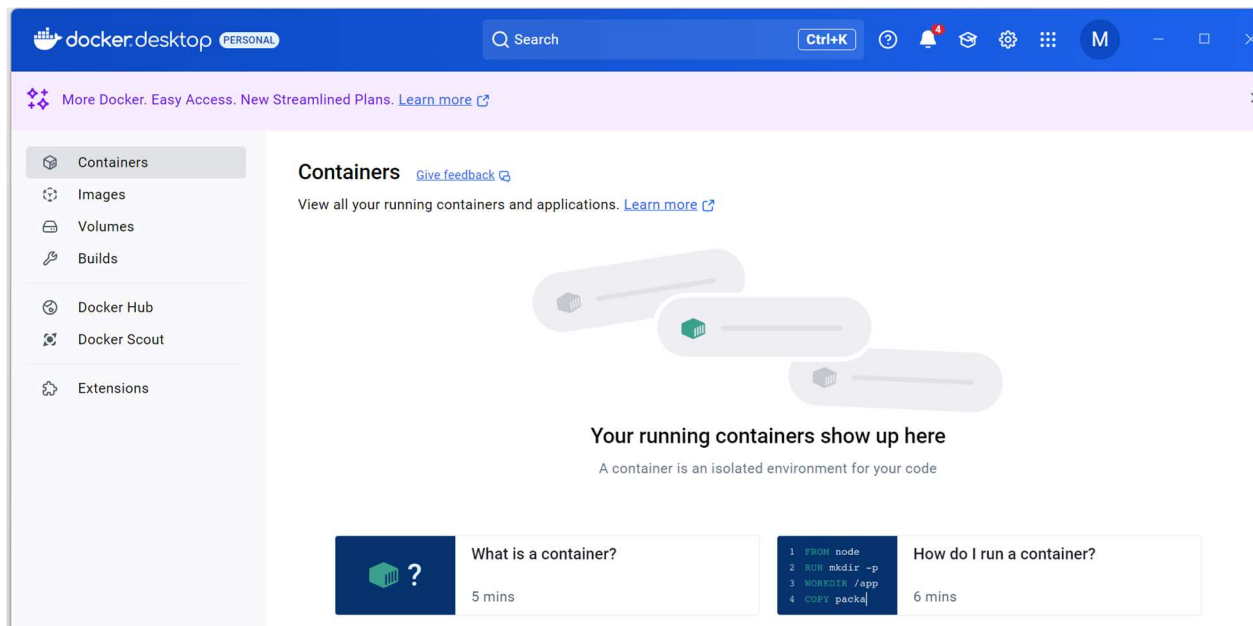
PS C:\Users\Manohar> docker rmi nginxcontainerregistry.azurecr.io/samples/nginx
Untagged: nginxcontainerregistry.azurecr.io/samples/nginx:latest
Untagged: nginxcontainerregistry.azurecr.io/samples/nginx@sha256:e49b2893e997eada7716bd7f3b2ed60aac69faa4041a4a3b88fb885609703cbb
Deleted: sha256:9bea9f2796e236cb18c2b3ad561ff29f655d1001f9ec7247a0bc5e08d25652a1
Deleted: sha256:ad858b4eee2d8f479065d1b8c650e13c815e75b2e4503c05a67cdc8880b0975a
Deleted: sha256:a8d62a6e94dbe8920ecfafa3b3aff0ef70aa26ca929f90b110db998eec09bab5
Deleted: sha256:8ad081ee0d46efdea0492cd0bb527c50a8891276fd408ec1269522ac9d6d5580
Deleted: sha256:d9ff8651e34fffb11d2a29317ec8404dcd4481bfcc1883b495113365dba8a461
Deleted: sha256:d351808aad5992f01a613745394c289e51a673d7809800322475b413e627e4
Deleted: sha256:5ec183755d09a0a54d0f83e5a705f28f1606fe75660c13148fa125e4f12af39f
Deleted: sha256:f5fe472da25334617e6e6467c7ebce41e0ae5580e5bd0ecbf0d573bacd560ecb

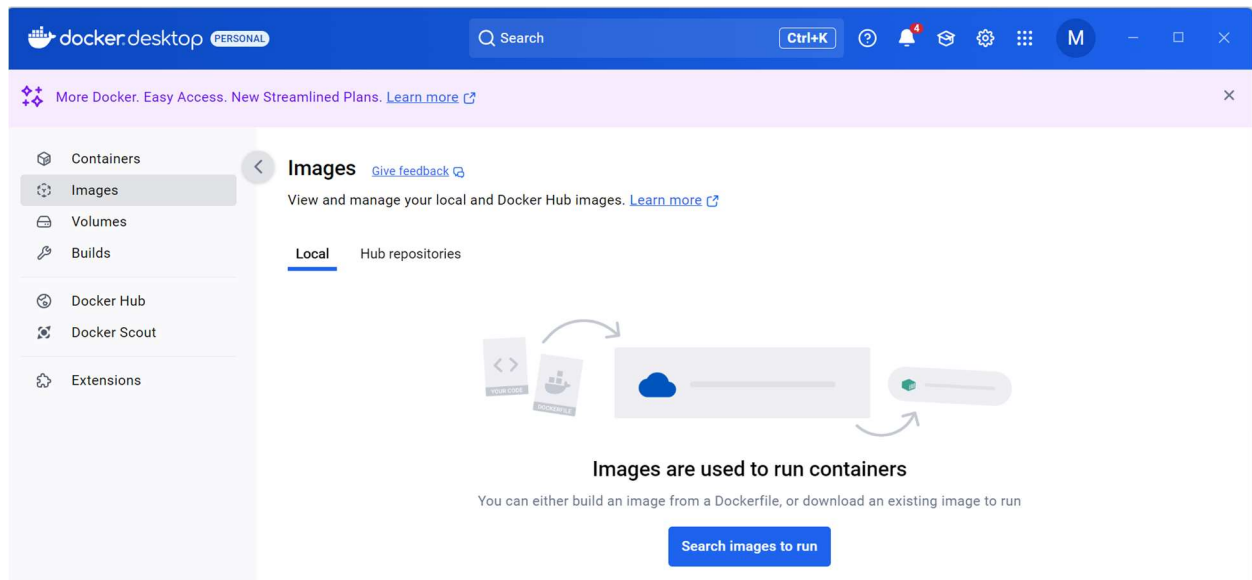
PS C:\Users\Manohar>
```

```
Windows PowerShell ISE
File Edit View Tools Debug Add-ons Help
Untitled1.ps1* X
1 docker --version
2 docker pull nginx
3 docker images
4 docker run -it -p 8080:80 nginx
5 docker tag nginx nginxcontainerregistry.azurecr.io/samples/nginx
6 az login
7 az acr login --name nginxcontainerregistry
8 docker push nginxcontainerregistry.azurecr.io/samples/nginx
9 docker container list
10 docker stop c480c3f5d40a
11 docker remove c480c3f5d40a
12 docker rmi nginx

Deleted: sha256:d31f8891e347f7b11a2a2991f2c8464ced4461b7cc1883b499119989db8a461
Deleted: sha256:d351808aa3da5992f01a613745394c289e51a673d7809800322475b413e627e4
Deleted: sha256:5ec183755d09a0a54d0f83e5a705f28f1606fe75660c13148fe125e4f12af39f
Deleted: sha256:f5fe472da25334617e6e6467c7ebce41e0ae5580e5bd0ecbf0d573bacd560ecb

PS C:\Users\Manohar> docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
PS C:\Users\Manohar>
```





Deleted container registry and container instance

