

"Deploying and Managing Containers on Azure with Docker"

Goto vm > create vm > ssh on vm

Create a virtual machine

[Help me create a low cost VM](#) [Help me create a VM optimized for high availability](#) [Help me choose the right VM size for my workload](#)

Basics Disks Networking Management Monitoring Advanced Tags Review + create

Create a virtual machine that runs Linux or Windows. Select an image from Azure marketplace or use your own customized image. Complete the Basics tab then Review + create to provision a virtual machine with default parameters or review each tab for full customization. [Learn more](#)

i This subscription may not be eligible to deploy VMs of certain sizes in certain regions.

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

Subscription * ⓘ

Resource group * ⓘ [Create new](#)

Instance details
Virtual machine name * ⓘ ✓

Region * ⓘ

[< Previous](#) [Next : Disks >](#) [Review + create](#)

```
>curl -sL https://aka.ms/InstallAzureCLIDeb | sudo bash
```

```
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

azure@ubuntu:~$ curl -sL https://aka.ms/InstallAzureCLIDeb | sudo bash
Hit:1 http://azure.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://azure.archive.ubuntu.com/ubuntu jammy-updates InRelease [128 kB]
Get:3 http://azure.archive.ubuntu.com/ubuntu jammy-backports InRelease [127 kB]
```

```
>sudo apt-get update
```

```
>sudo apt-get install apt-transport-https ca-certificates curl gnupg lsb-release
```

```
>sudo mkdir -p /etc/apt/keyrings
```

```
>curl -sLS https://packages.microsoft.com/keys/microsoft.asc |
```

```
gpg --dearmor | sudo tee /etc/apt/keyrings/microsoft.gpg > /dev/null
```

```
>sudo chmod go+r /etc/apt/keyrings/microsoft.gpg
```

```
>AZ_DIST=$(lsb_release -cs)
```

```
echo "Types: deb
```

```
URIs: https://packages.microsoft.com/repos/azure-cli/
```

```
Suites: ${AZ_DIST}
```

```
Components: main
```

```
Architectures: $(dpkg --print-architecture)
```

Signed-by: /etc/apt/keyrings/microsoft.gpg" | sudo tee /etc/apt/sources.list.d/azure-cli.sources

```
azure@ubuntu:~$ AZ_DIST=$(lsb_release -cs)
echo "Types: deb
URIs: https://packages.microsoft.com/repos/azure-cli/
Suites: ${AZ_DIST}
Components: main
Architectures: $(dpkg --print-architecture)
Signed-by: /etc/apt/keyrings/microsoft.gpg" | sudo tee /etc/apt/sources.list.d/azure-cli.sources
Types: deb
URIs: https://packages.microsoft.com/repos/azure-cli/
Suites: jammy
Components: main
Architectures: amd64
Signed-by: /etc/apt/keyrings/microsoft.gpg
```

>sudo apt-get update

>sudo apt-get install azure-cli

#Update your vm

>az upgrade

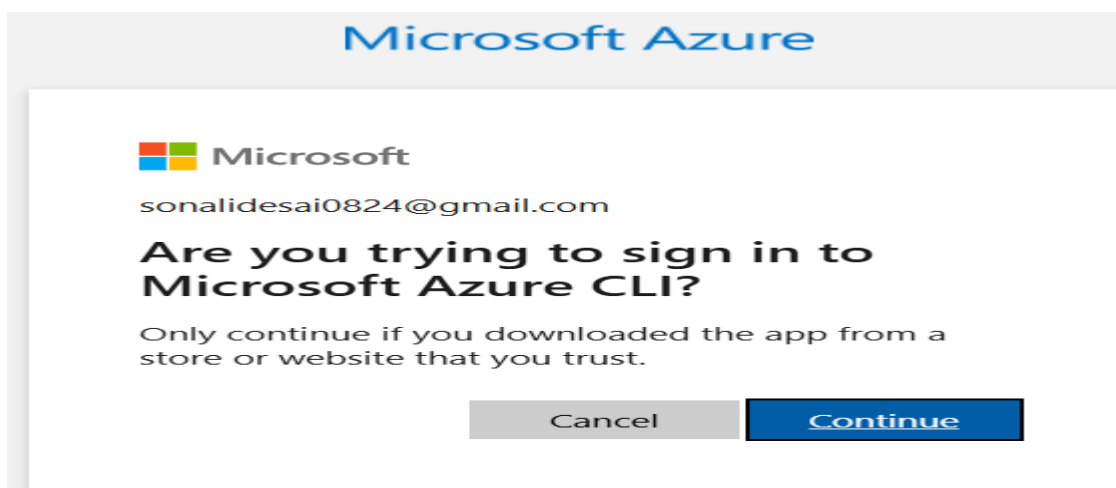
```
azure@ubuntu:~$ az upgrade
This command is in preview and under development. Reference and support levels: https://aka.ms/CLI_refstatus
You already have the latest azure-cli version: 2.69.0
Upgrade finished.You can enable auto-upgrade with 'az config set auto-upgrade.enable=yes'. More details in https://learn.microsoft.com/cli/azure/update-azure-cli#automatic-update
```

#After this now lets install docker

>sudo apt-get install docker.io

>az login

Its mean that you can sign in to azure cli interactively at a cmd line



Its mean you login successfully

```

azure@ubuntu:~$ az login
To sign in, use a web browser to open the page https://microsoft.com/devicelogin and enter the code NPZHMTQJH to authenticate.
Retrieving tenants and subscriptions for the selection...
[Tenant and subscription selection]
No      Subscription name  Subscription ID  Tenant
-----
[1] *   Free Trial        ca163a05-ce15-4c02-8ff4-1157f173c131  Default Directory

The default is marked with an *; the default tenant is 'Default Directory' and subscription is 'Free Trial' (ca163a05-ce15-4c02-8ff4-1157f173c131).
Select a subscription and tenant (Type a number or Enter for no changes): 1

Tenant: Default Directory
Subscription: Free Trial (ca163a05-ce15-4c02-8ff4-1157f173c131)

[Announcements]
With the new Azure CLI login experience, you can select the subscription you want to use more easily. Learn more about it and its configuration at https://go.microsoft.com/fwlink/?linkid=2271236
If you encounter any problem, please open an issue at https://aka.ms/azclibug

[Warning] The login output has been updated. Please be aware that it no longer displays the full list of available subscriptions by default.

```

#Create azure container registry

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 *

Resource group * [Create new](#)

Instance details

Registry name * .azurecr.io

Location *

Use availability zones ☐

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

Now to login into acr username got to azure portal > acr > access key

Access keys

Registry name

Login server

Admin user ☒

Username

Name	Password	Regenerate
password	<input type="password"/>	Show <input type="button" value="🔄"/>
password2	<input type="password"/>	Show <input type="button" value="🔄"/>

>sudo az acr login --name demoi

Username: demoi

Password :

#Password get from acr > access key

#Now pull one image from docker hub

> sudo docker pull hshar/webapp

```
azure@ubuntu:~$ 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
```

#List the docker image

>sudo docker images

```
azure@ubuntu:~$ sudo docker images
REPOSITORY                                TAG      IMAGE ID
demoi.azurecr.io/hello-world             v1       74cc54e27dc4
hello-world                               latest   74cc54e27dc4
hshar/webapp                              latest   0cbc1f535ed8
```

>sudo docker run -it -d --name app1 hshar/webapp

#The command runs a Docker container in the background from the hshar/webapp image, with an interactive terminal, and assigns it the name "app1".

```
azure@ubuntu:~$ sudo docker run -it -d --name app1 hshar/webapp
4fdc5bd0412eb74e18bf8ef0507ced6151ba627b845fe90c9930527ba9b6330d
```

>sudo docker exec -it app1 bash

#The command opens an interactive bash shell inside the running Docker container named app1.

>cd /var/www/html

>nano index.html #Paste your code

>exit

```
azure@ubuntu:~$ sudo docker exec -it app1 bash
root@4fdc5bd0412e:/# cd /var/www/html
root@4fdc5bd0412e:/var/www/html# ls
index.php
root@4fdc5bd0412e:/var/www/html# index.html
bash: index.html: command not found
root@4fdc5bd0412e:/var/www/html# nano index.html
root@4fdc5bd0412e:/var/www/html# exit
exit
```

```
>sudo docker commit app1
```

#The command creates a new Docker image from the changes made to the running container app1.

```
azure@ubuntu:~$ sudo docker commit app1
sha256:67f18db3820eda010d5ebbe18276c2a1b09e6b673886a500bd9efbe1e26bf8ea
```

```
>sudo docker tag 67f18db3820e demoi.azurecr.io/app1:v1
```

#To give tag

```
azure@ubuntu:~$ sudo docker tag 67f18db3820e demoi.azurecr.io/app1:v1
```

```
>sudo docker push demoi.azurecr.io/app1:v1
```

#The command uploads the Docker image app1 with the tag v1 to the registry at demoi.azurecr.io

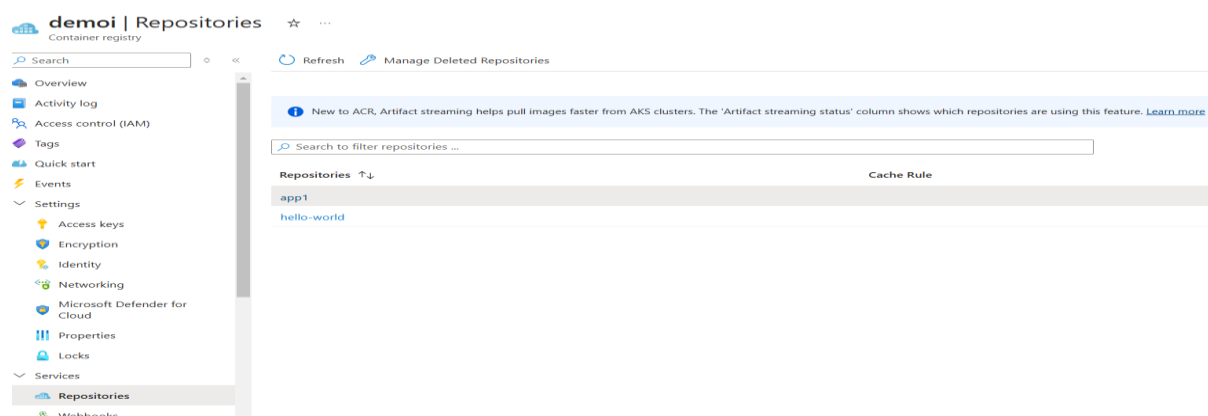
```
azure@ubuntu:~$ sudo docker push demoi.azurecr.io/app1:v1
The push refers to repository [demoi.azurecr.io/app1]
d1a07ada790a: Pushed
f9445cdd87ab: Pushed
3e59a52a52d1: Pushed
754d8c63561b: Pushed
059ad60bcacf: Pushed
8db5f072feec: Pushed
67885e448177: Pushed
ec75999a0cb1: Pushed
65bdd50ee76a: Pushed
v1: digest: sha256:977a205c8df196a2f0106e1a07129d3bd6cd8dbb3cf197871b0c4a7f015b863d size: 2193
```

```
>sudo docker login demoi.azurecr.io
```

#The command is used to log in to the Docker registry at demoi.azurecr.io with your credentials.

```
azure@ubuntu:~$ sudo docker login demoi.azurecr.io
Authenticating with existing credentials...
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
```

#You can see you image in Container



Goto app services

>web app > resource group

> app name

> container

> east US (# you can practices one time in one region)

> container > azure container registry (# demoi – app1 – v1)

> Review + create

App Services

Default Directory (Sonalidesai0824gmail.onmicrosoft.com)

+

Create

Manage Deleted Apps

Manage view

Web App

Static Web App

Web App + Database

WordPress on App Service

Subscription equals all

Resou

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 *

rs12

Create new

Instance Details

Name

app0

-a9g0cqbzecewgva7.australiaeast-01.azurewebsites.net

Publish *

Secure unique default hostname on. [More about this update](#)

Code

Container

Operating System *

Linux

Windows

Region *

Australia East

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

Create Web App

Basics

Database

Container

Networking

Monitor + secure

Tags

Review + create

Select your preferred source for container images. You can change these settings and other dependencies after creating the app. [Learn more](#)

Sidecar support

Enhanced configuration with sidecar support off [Learn More](#)

Image Source *

Quickstart

Azure Container Registry

Other container registries

Azure container registry options

Registry *

demoi

Image *

app1

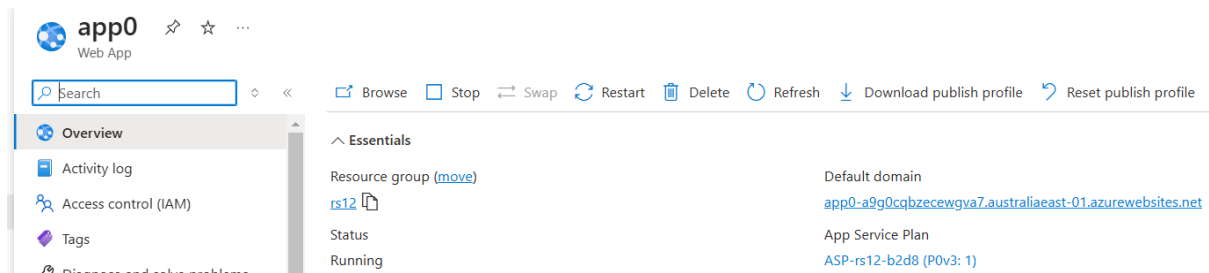
Tag *

v1

Startup Command

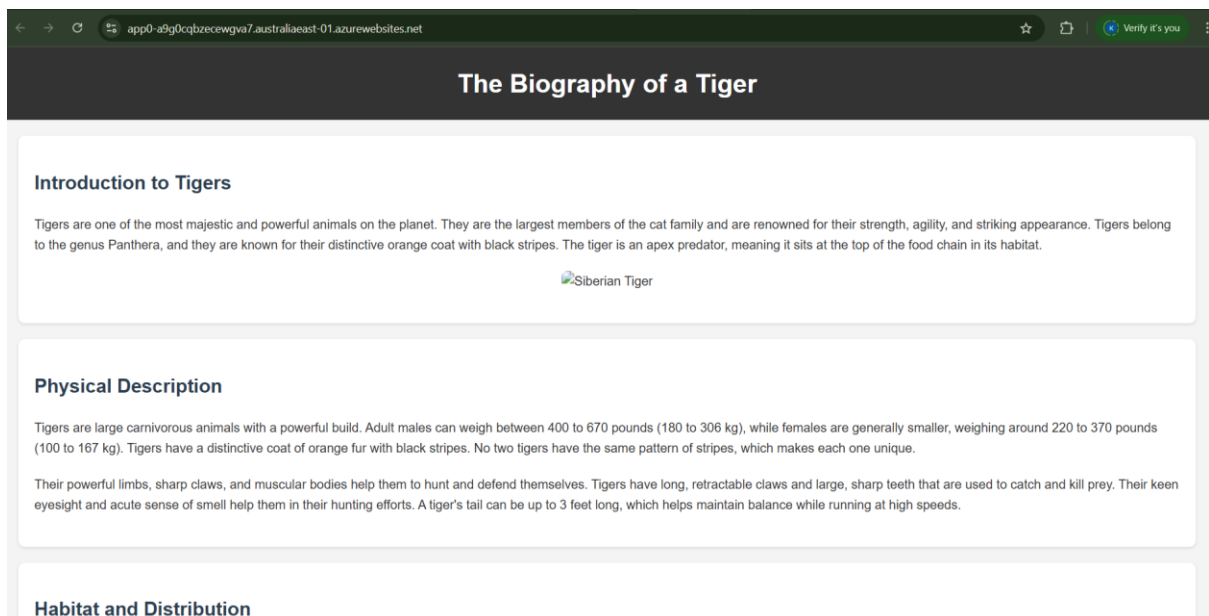
Example: /bin/bash; -c; echo hello; sleep 10000

Paste Default Domain



The screenshot shows the Azure portal interface for a Web App named 'app0'. The left sidebar contains navigation links: Overview, Activity log, Access control (IAM), Tags, and Diagnose and solve problems. The main content area is divided into two sections. The 'Essentials' section on the left lists 'Resource group (move)' with a link to 'rs12', 'Status' as 'Running', and a 'Restart' button. The right section displays the 'Default domain' as 'app0-a9g0cqbzecwgv7.australiaeast-01.azurewebsites.net', the 'App Service Plan' as 'ASP-rs12-b2d8 (P0v3: 1)', and a 'Download publish profile' button. At the top, there are action buttons: Browse, Stop, Swap, Restart, Delete, Refresh, and Reset publish profile.

You Can See Your Web-App or Web-Site



The screenshot shows a web browser window with the address bar displaying 'app0-a9g0cqbzecwgv7.australiaeast-01.azurewebsites.net'. The website has a dark header with the title 'The Biography of a Tiger'. The main content area is divided into three sections: 'Introduction to Tigers', 'Physical Description', and 'Habitat and Distribution'. The 'Introduction to Tigers' section contains a paragraph about tigers and a small image of a 'Siberian Tiger'. The 'Physical Description' section contains two paragraphs about tigers' physical characteristics. The 'Habitat and Distribution' section is currently empty.

Done!!!!!!