

# Practical CA-1(CSV209)

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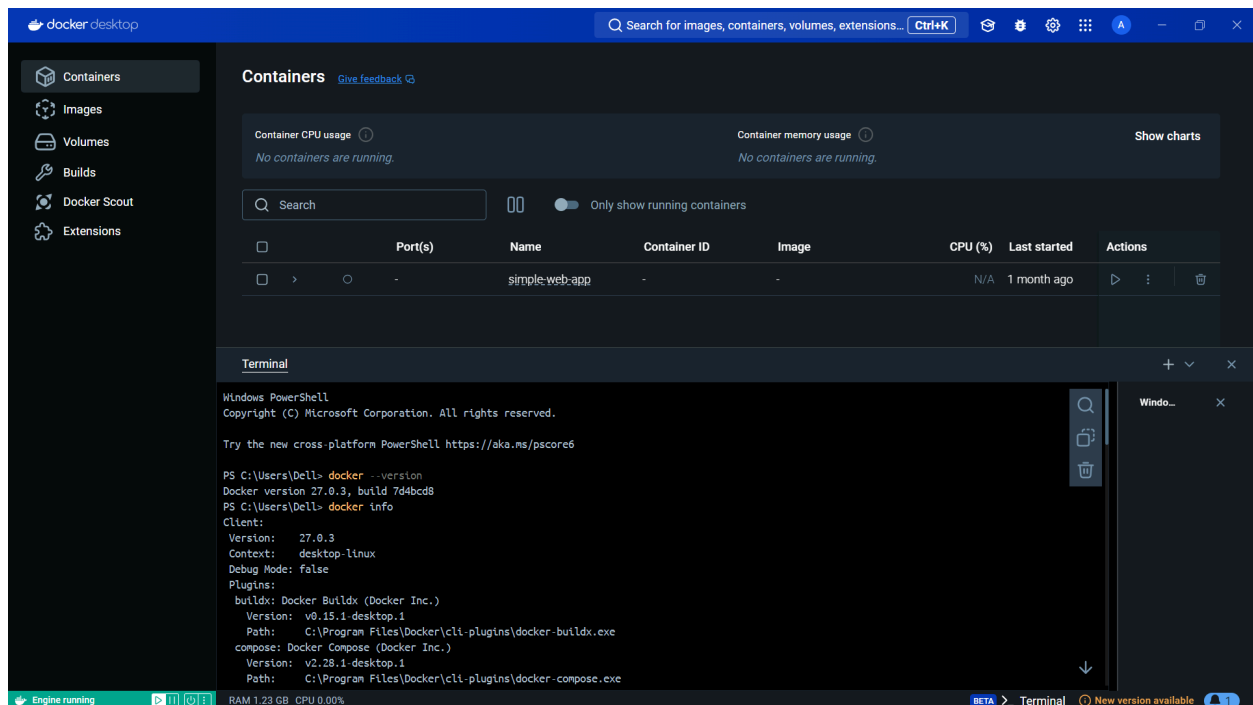
## 1.Docker Installation

**\*Install and Configure Docker**

—>the command is use to configure docker installation is docker

**--version**

**docker info**



## \*Post-Installation Steps

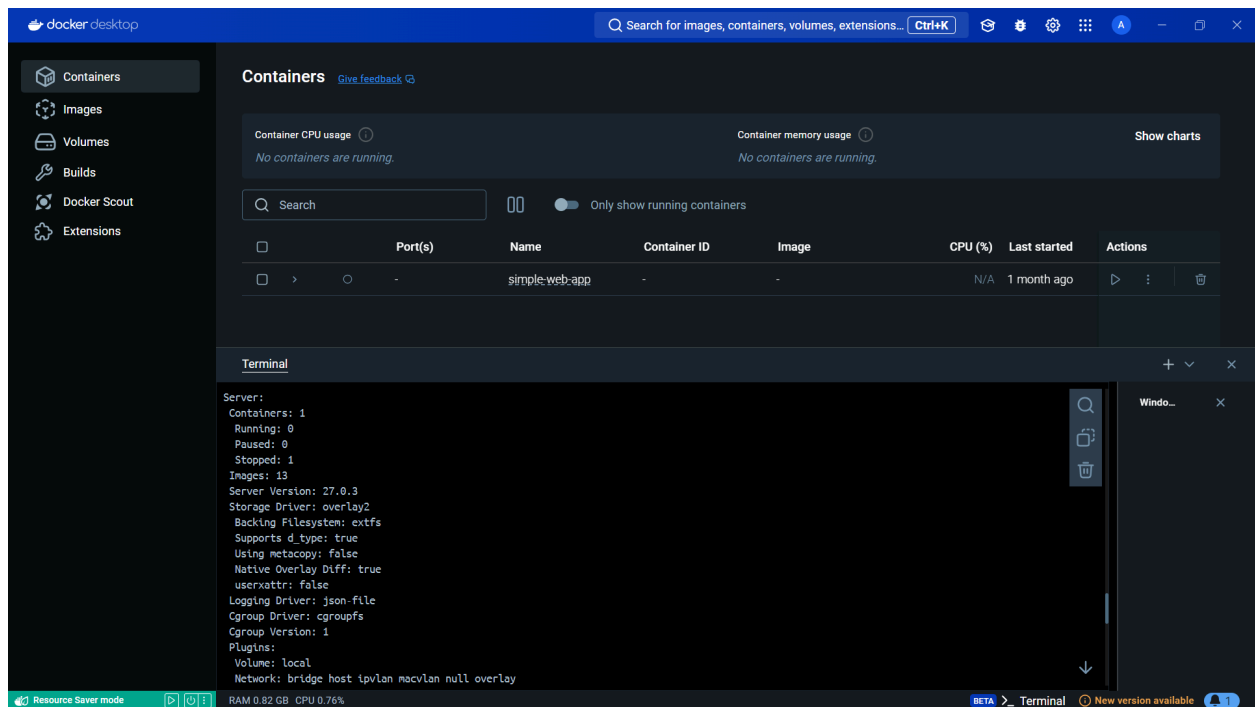
—>For the post installation step command are used is:

**sudo apt update**

**sudo apt install docker.io -y**

**sudo systemctl start docker**

**sudo systemctl enable docker**



## 2. Pulling and Running Docker Images

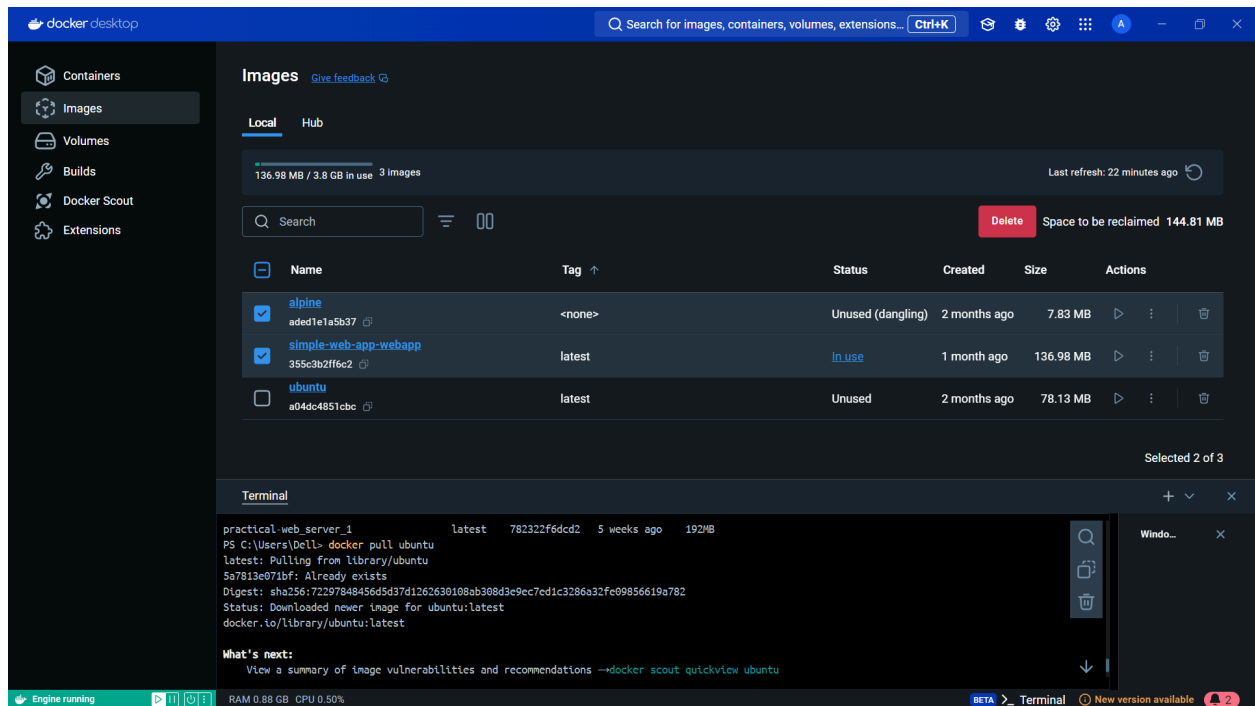
\*Pull a Base Image

→ For pulling the base image we have to use the command

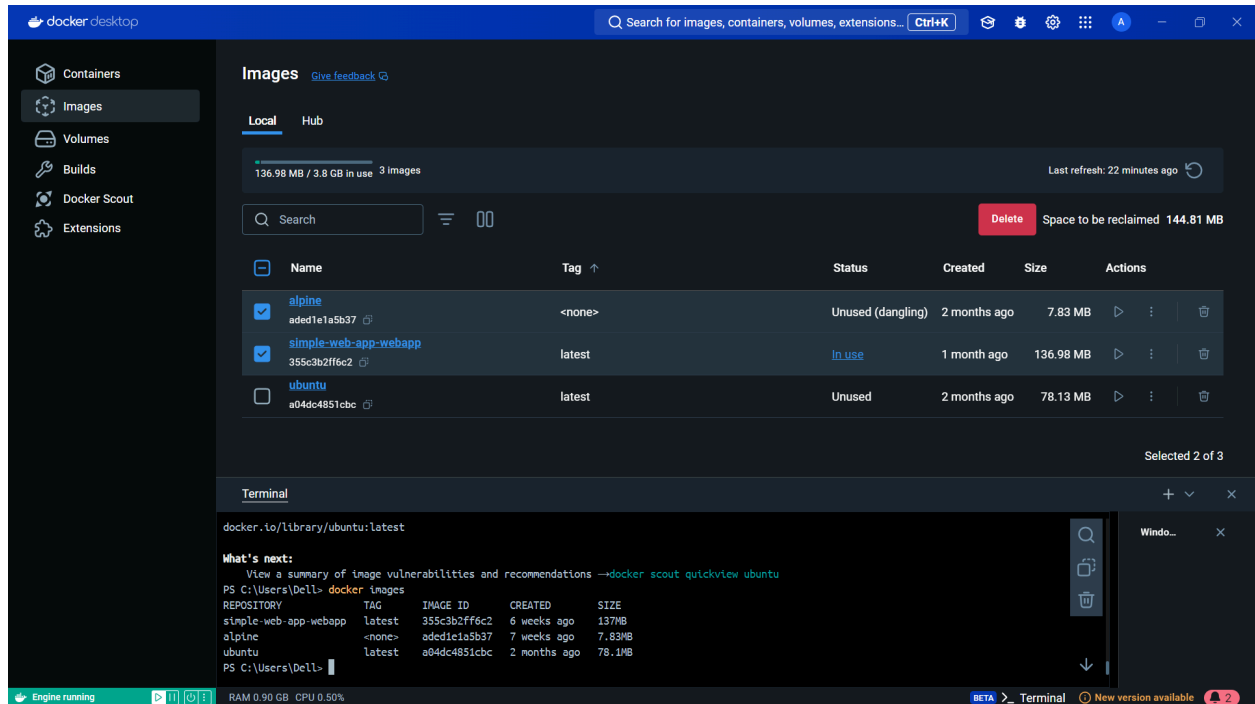
**docker pull ubuntu**

→ For verifying the image we used the command

**docker images**



Docker images :



\*Run Container and Perform a Task

→for running the container we used the command

**docker run -it ubuntu**

\*Inside the container

**echo "Hello from Docker!"**

**apt update**

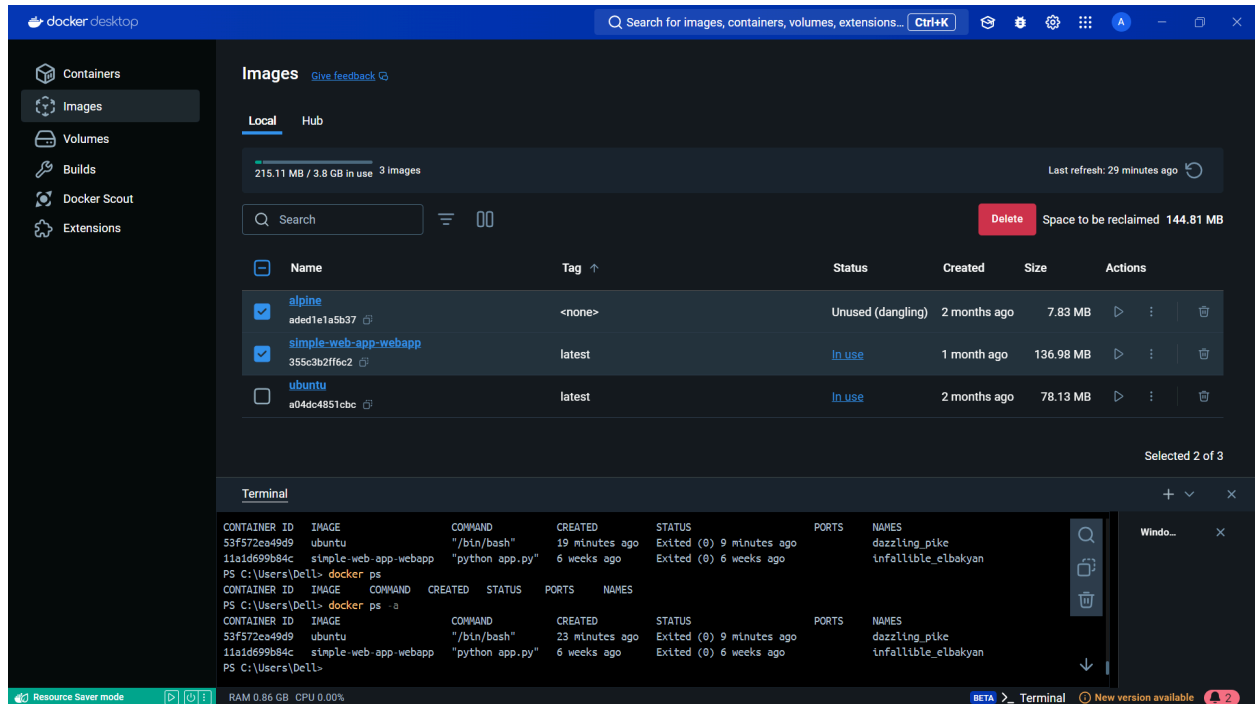
**apt install nano**

**exit**

### 3. Basic Container Management

—> docker inspect to gather container details we used the command

**docker ps, docker ps -a,**



Show how to list running containers and retrieve specific info (e.g., container IP).

— for this using the command that is **docker inspect <container\_id>**

docker desktop

Search for images, containers, volumes, extensions... **Ctrl+K**

Containers

**Images**

Volumes

Builds

Docker Scout

Extensions

Images

Give feedback

LocalHub

215.11 MB / 3.8 GB in use3 Images

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Space to be reclaimed144.81 MB

Name	Tag	Status	Created	Size	Actions
<input checked="" type="checkbox"/> <b>alpine</b> aded1e1a5b37	<none>	Unused (dangling)	2 months ago	7.83 MB	<div></div> <div></div> <div></div>
<input checked="" type="checkbox"/> <b>simple-web-app-webapp</b> 355c3b2ffec2	latest	In use	1 month ago	136.98 MB	<div></div> <div></div> <div></div>

Terminal

53f572ea49d9ubuntu"/bin/bash23 minutes agoExited (0) 9 minutes agodazzling\_pike

11a1d699b84csimple-web-app-webapp"python app.py"6 weeks agoExited (0) 6 weeks agoinfalible\_elbakyan

PS C:\Users\ DELL> docker inspect ^C

PS C:\Users\ DELL> docker inspect 53f572ea49d9

[

{

"Id": "53f572ea49d9b03ecbdf9f0ba49508ca15acb5c1ac32f97c3587285c641",

"Created": "2025-04-08T09:24:33.970Z36388Z",

"Path": "/bin/bash",

"Args": [],

"State": {

"Status": "exited",

"Running": false,

"Paused": false,

"Restarting": false,

"OOMKilled": false,

}

}

Resource Saver modeRAM 0.86 GBCPU 0.00%

BETATerminalNew version available2

docker desktop

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Terminal

"Paused": false,

"Restarting": false,

"OOMKilled": false,

"Dead": false,

"Pid": 0,

"ExitCode": 0,

"Error": "",

"StartedAt": "2025-04-08T09:24:34.501Z31612Z",

"FinishedAt": "2025-04-08T09:28:12.61088863Z"

},

"Image": "sha256:a04dc4851cbcb42b54d1f52a41f5f9eca6a5fd03748c3f6eb2cbeb238ca99bd",

"ResolvConfPath": "/var/lib/docker/containers/53f572ea49d9b03ecbdf9f0ba49508ca15acb5c1ac32f97c3587285c641/resolv.conf",

"HostnamePath": "/var/lib/docker/containers/53f572ea49d9b03ecbdf9f0ba49508ca15acb5c1ac32f97c3587285c641/hostname",

"HostsPath": "/var/lib/docker/containers/53f572ea49d9b03ecbdf9f0ba49508ca15acb5c1ac32f97c3587285c641/hosts",

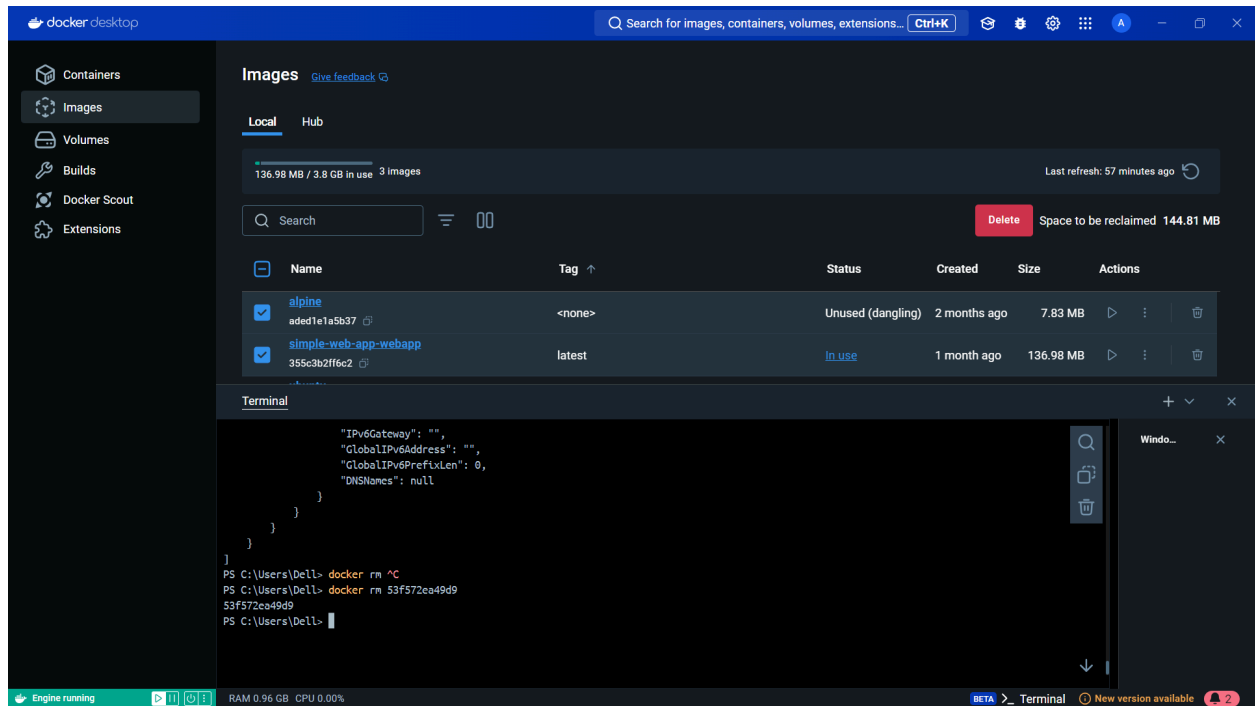
"LogPath": "/var/lib/docker/containers/53f572ea49d9b03ecbdf9f0ba49508ca15acb5c1ac32f97c3587285c641/53f572ea49d9b03ecbdf9f0ba49508ca15acb5c1ac32f97c3587285c641.json.log",

Resource Saver modeRAM 0.86 GBCPU 0.00%

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## \*Cleaning Up

Remove unused containers we used the command (**docker rm**) and for images (**docker rmi**) to free space.



## Docker Commands Explained

### Command

### Explanation

**docker**

Shows the installed Docker version.

**--version**

**docker info**

Displays system-wide Docker details (containers, images, storage, etc.).

`docker pull ubuntu` Downloads the **Ubuntu** image from Docker Hub to your system.

`docker images` Lists all Docker images available on your local machine.

`docker run -it ubuntu` Runs a container in **interactive mode** with a terminal from the Ubuntu image.

`docker ps` Shows **running** containers.

`docker ps -a` Shows **all** containers (running + stopped).

`docker inspect <container_id>` Shows detailed information about a container (like IP, config, etc.).





