SWE-4008 Application Development & Deployment Architecture LAB

LAB ASSIGNMENT- 2

DOCKER LAB MANUAL

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Step-1: Docker Installation Procedure:

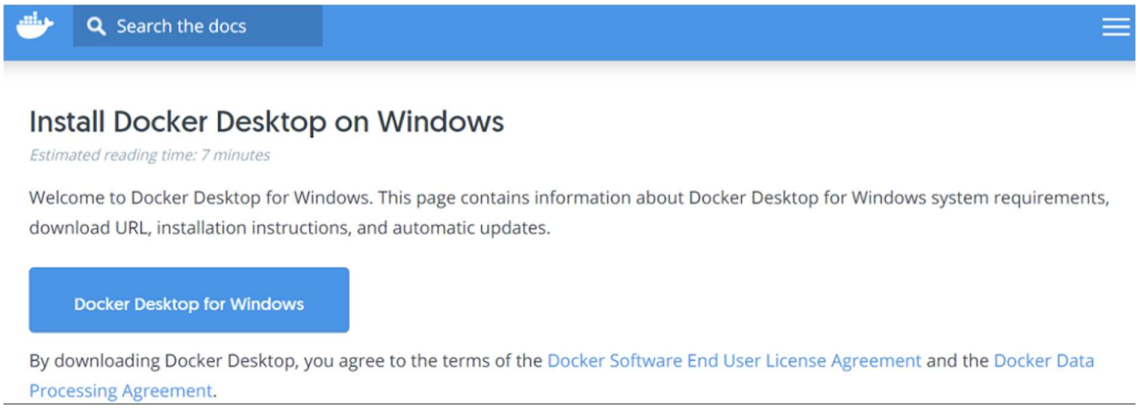
i. Step 1: Download Docker Desktop

Open your preferred web browser (e.g., Chrome).

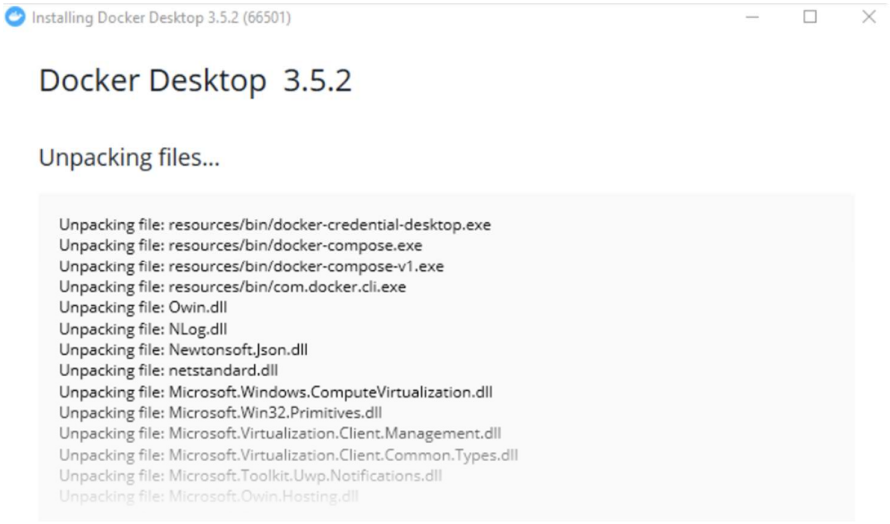
Then search in the browser by typing s “Docker download” and press Enter.

Click on the first link that appears in the search results.

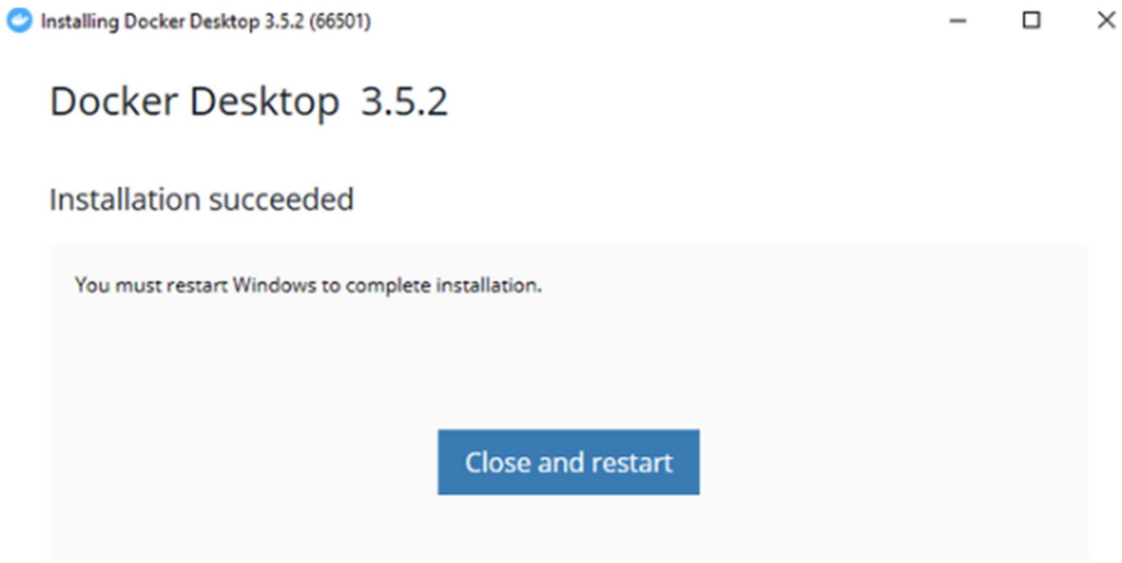
(https://docs.docker.com/desktop/setup/install/windows-install/)



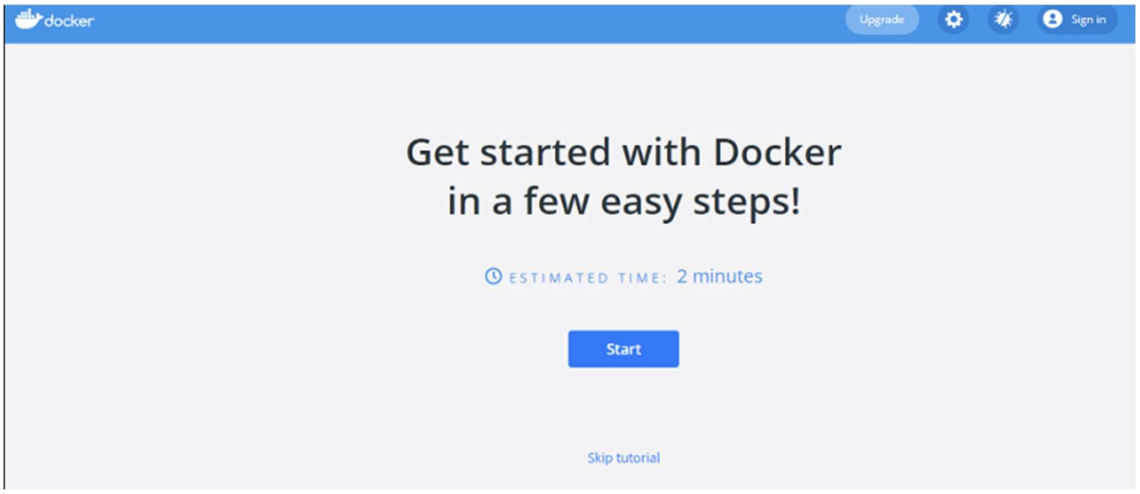
ii. The installer will ask you to install WSL2, so click on the tick box next to it and click on ok. This will download and install WSL2 for you as shown below:



iii. Then we will need to restart our system, so click on “Close and restart” button in the Docker installer window.

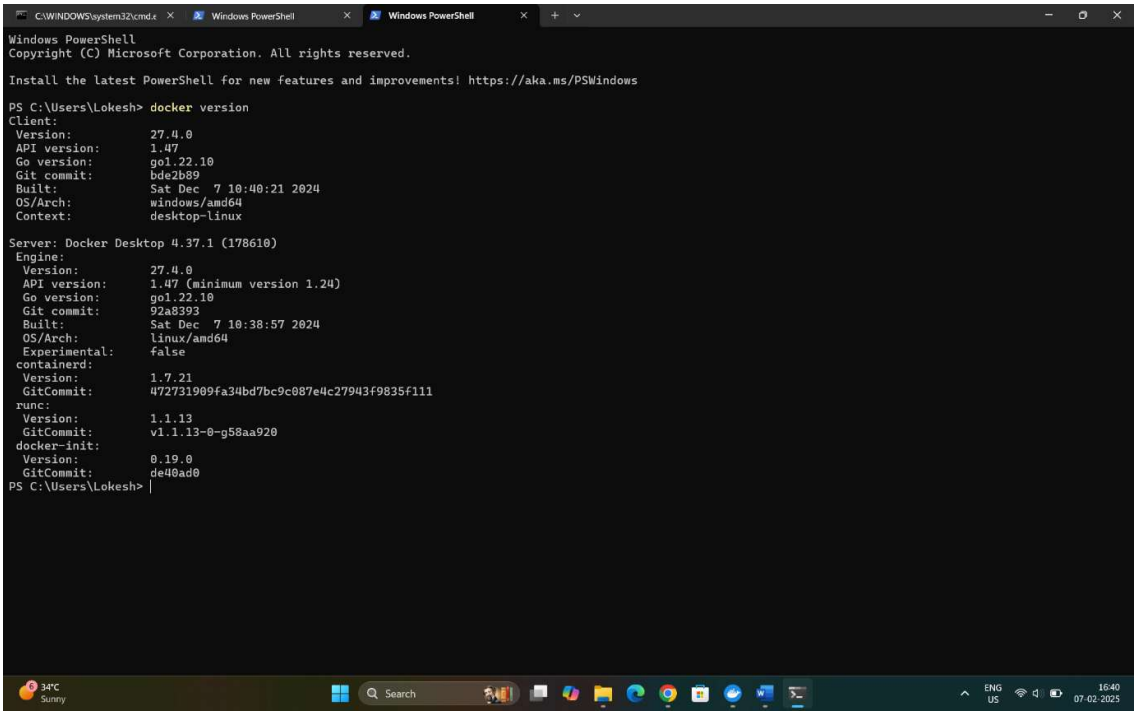


iv. After you restart the computer it will open up the Docker windows as shown below:



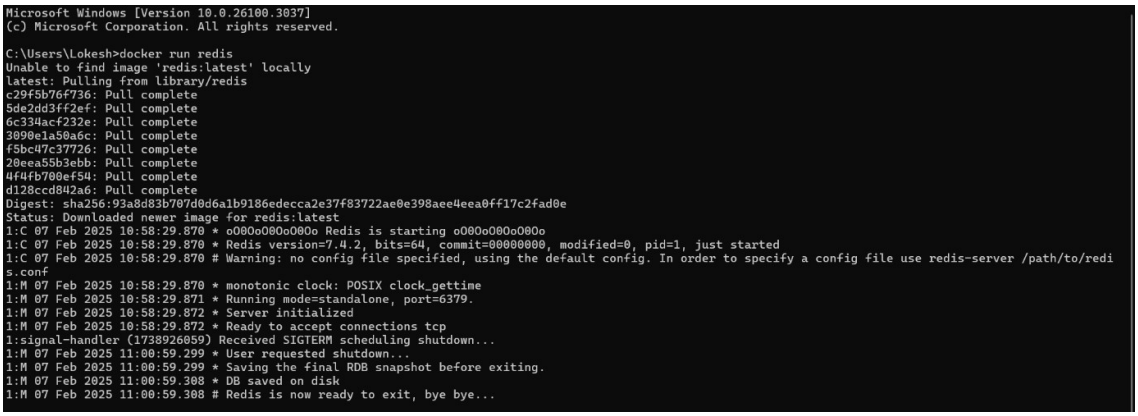
v. At this point we have successfully installed docker on our Windows operating system. We can verify this using the below command:

docker version



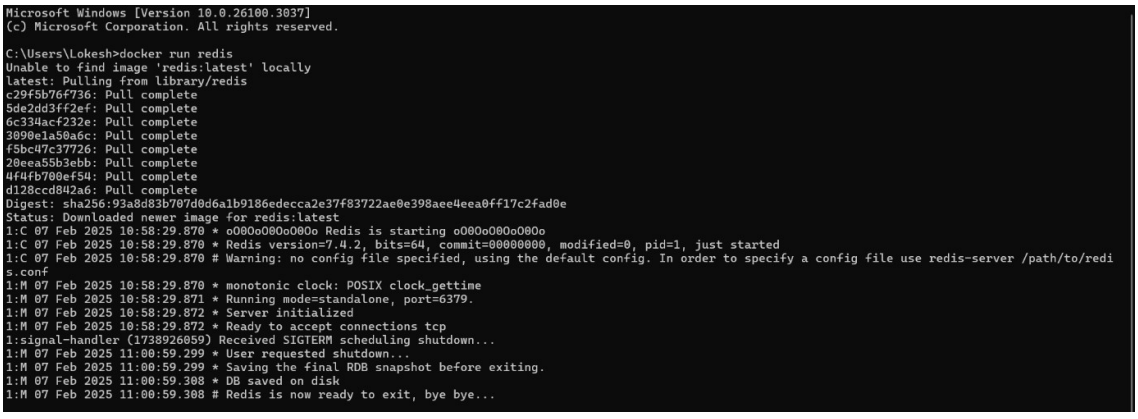
Step 2: Important Docker Commands:-

i. Docker Run command : This command is used to run a container from an image. The docker run command is a combination of the docker create and docker start commands. It creates a new container from the image specified and starts that container. if the docker image is not present, then the docker run pulls that.



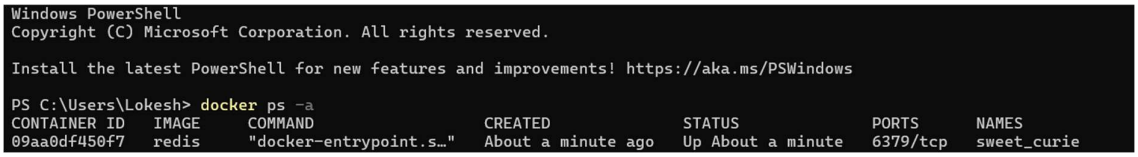
ii. Docker Pull: This command allows you to pull any image which is present in the official registry of docker, Docker hub. By default, it pulls the latest image, but you can also mention the version of the image.

After successful execution:



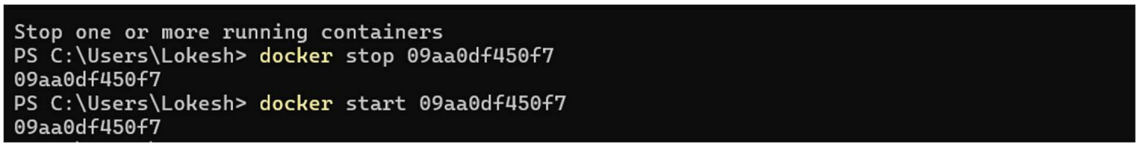
iii. Docker ps command: This command (by default) shows us a list of all the running containers. We can use various flags with it.

- -a flag: shows us all the containers, stopped or running.
- -l flag: shows us the latest container.
- -q flag: shows only the Id of the containers



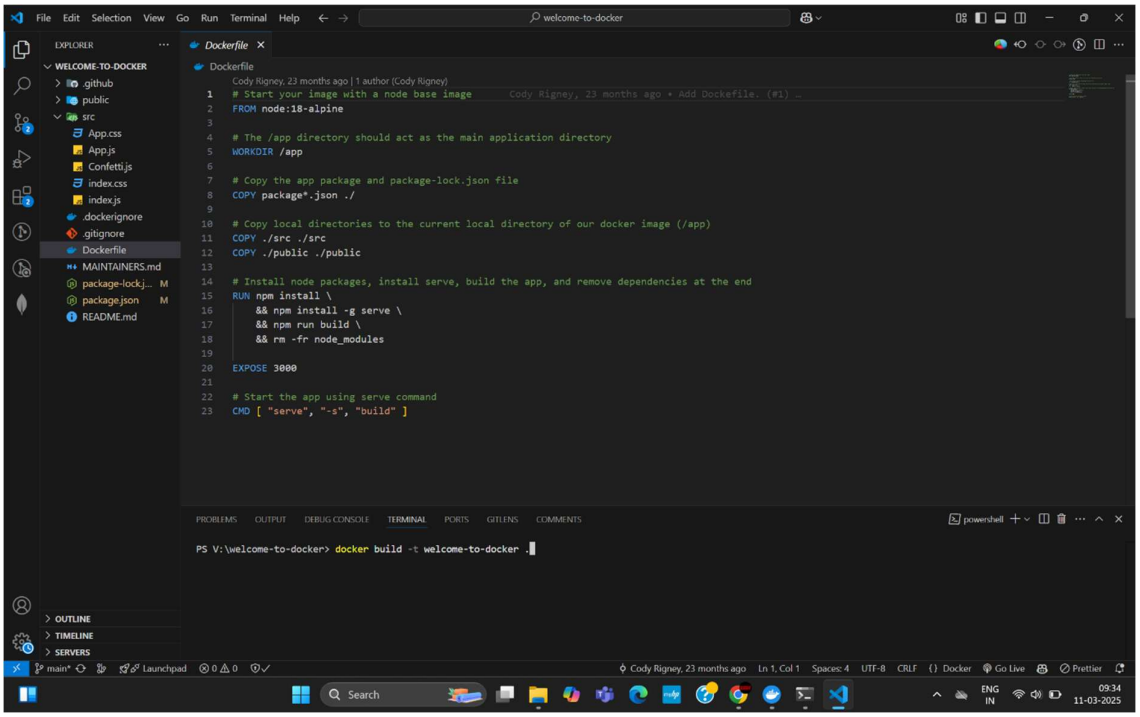
iv. Docker Stop: This command allows you to stop a container if it has crashed or you want to switch to another one.

Format: docker stop <container_ID>



v. Docker Start : Suppose you want to start the stopped container again, you can do it with the help of this command.

Format: docker start <container_ID>



vi. Docker rm: To delete a container. By default when a container is created, it gets an ID as well as an imaginary name such as confident_boyd, heuristic_villani, etc. You can either mention the container name or its ID.

Some important flags:

-f flag: remove the container forcefully.

-v flag: remove the volumes.

-l flag: remove the specific link mentioned.

Format: $ docker rm {options} <container_name or ID>

```
PS C:\Users\Lokesh> docker rm 09aa0df450f7
Error response from daemon: cannot remove container "/sweet_curie": container is running: stop the container before removing or force remove
```

vii. Docker Images: Lists all the pulled images which are present on our system.