2100032449

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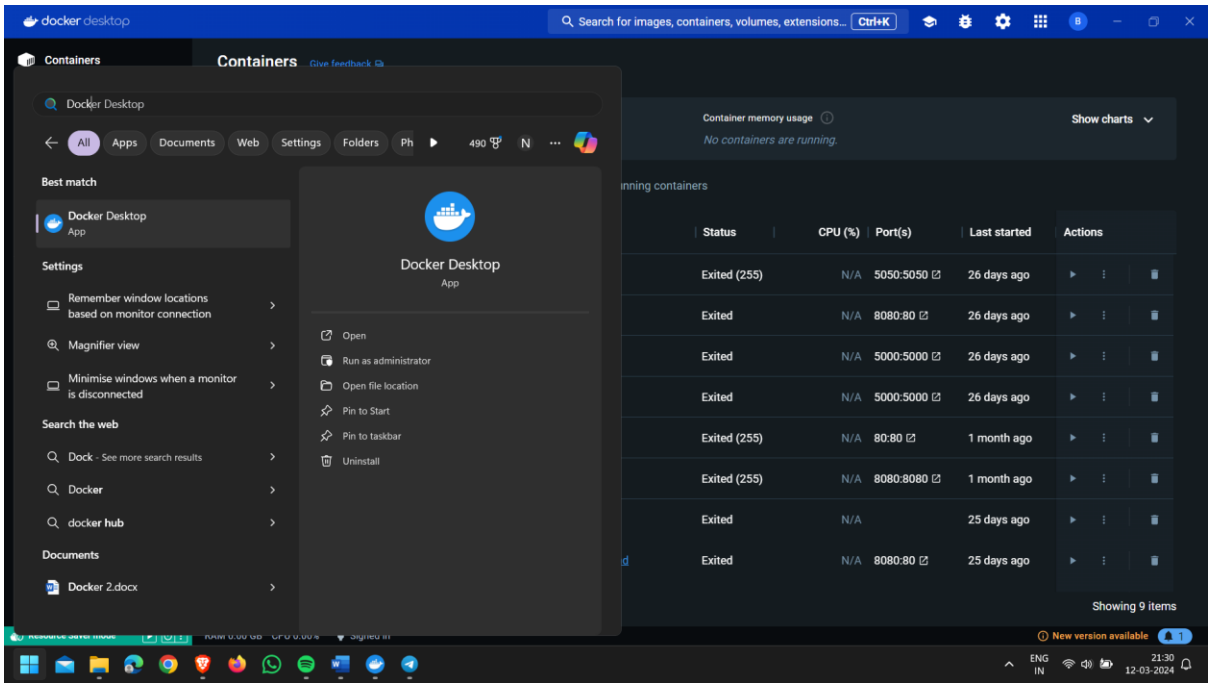
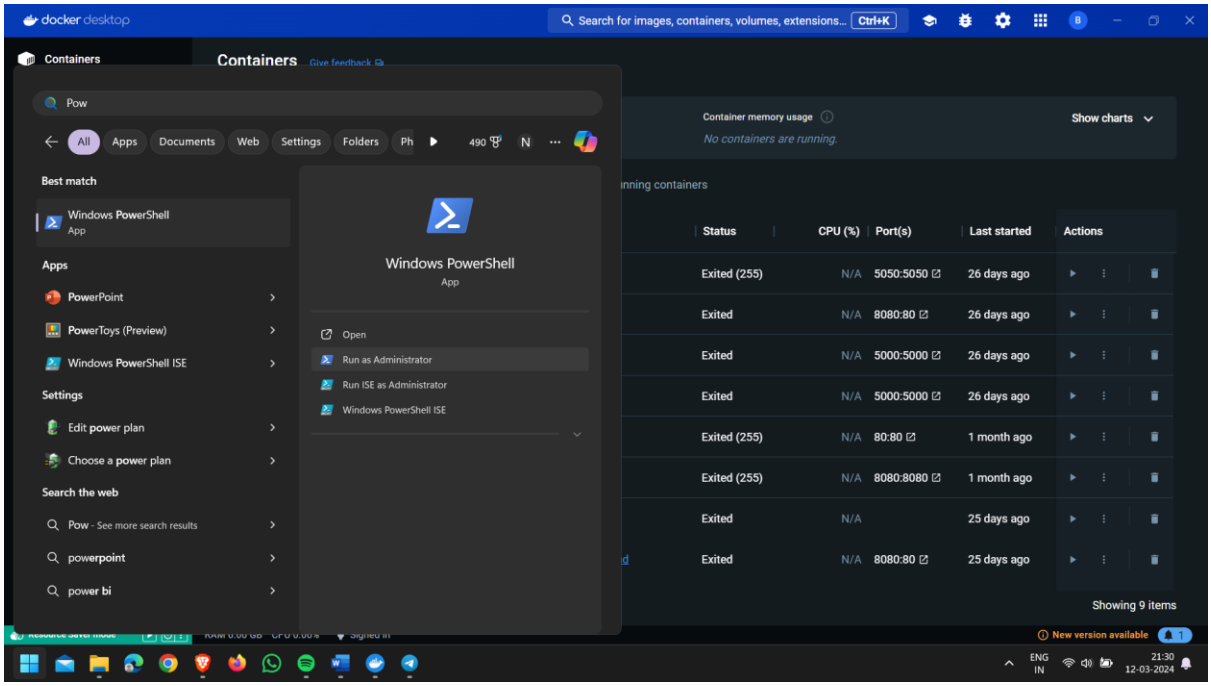
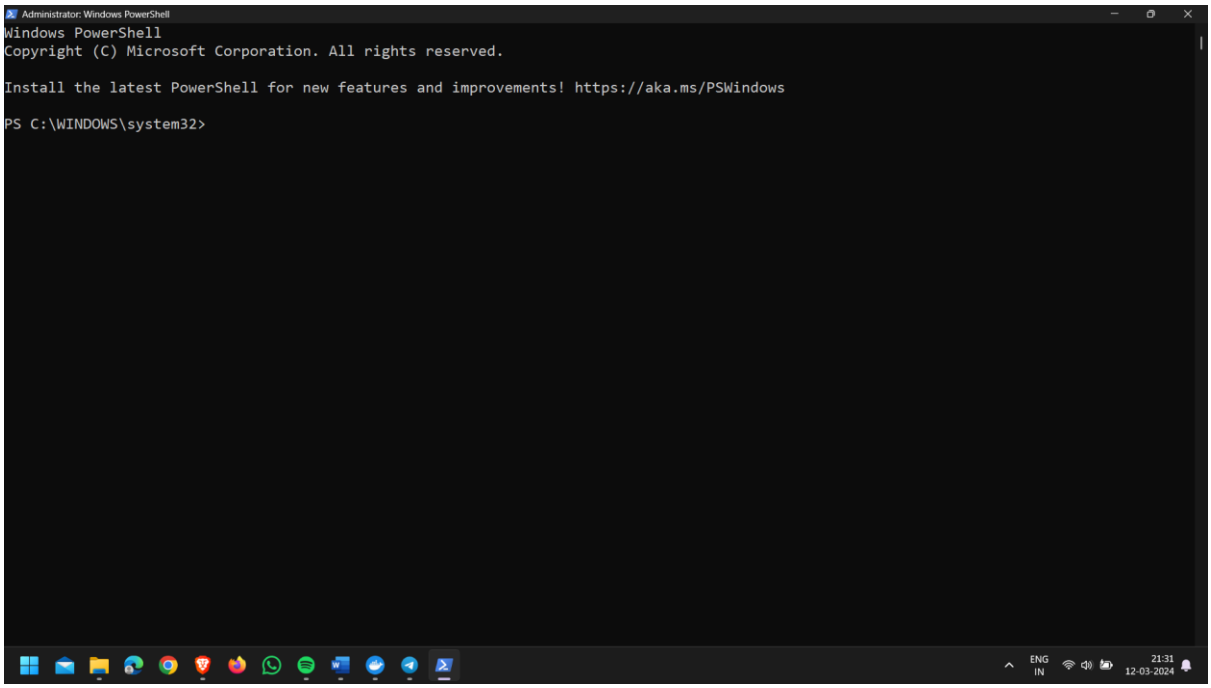
4. Explore Docker Hub for images that will run a website and get them into your development environment and practice

1. Open Docker Desktop



2. Now Open Powershell in Administrator Mode





3. Now to check info use following command

docker info - Displays system wide information about Docker.

4. **docker ps**: Lists the runnin' Docker containers.

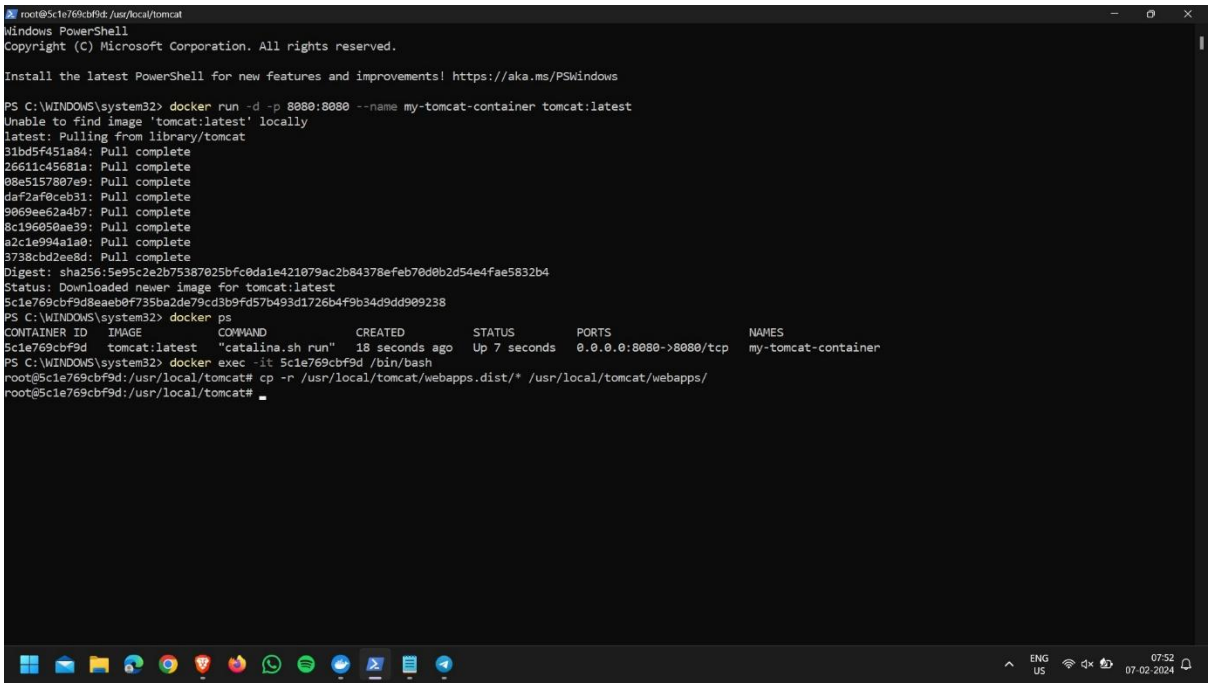
5. To pull an Image we can use following Command

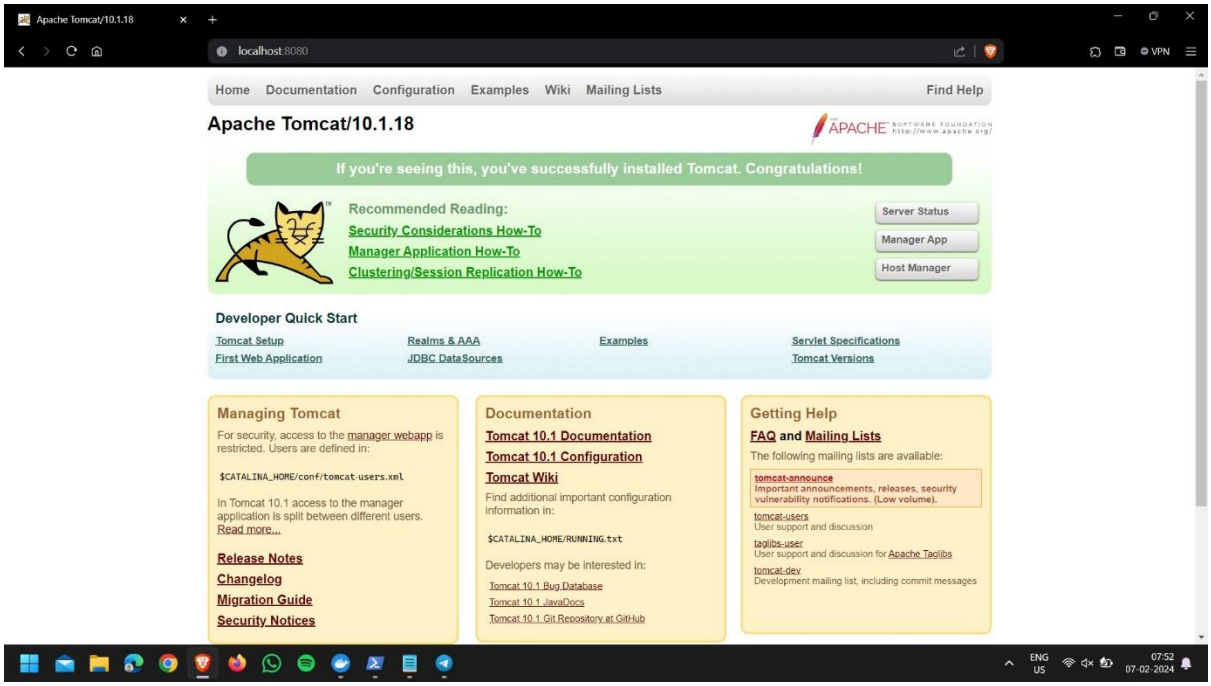
docker pull <image_name>

for example for tomcat image

6. To run a pulled image

Use command **docker run -d -p 8080:8080 –name <image_name>**

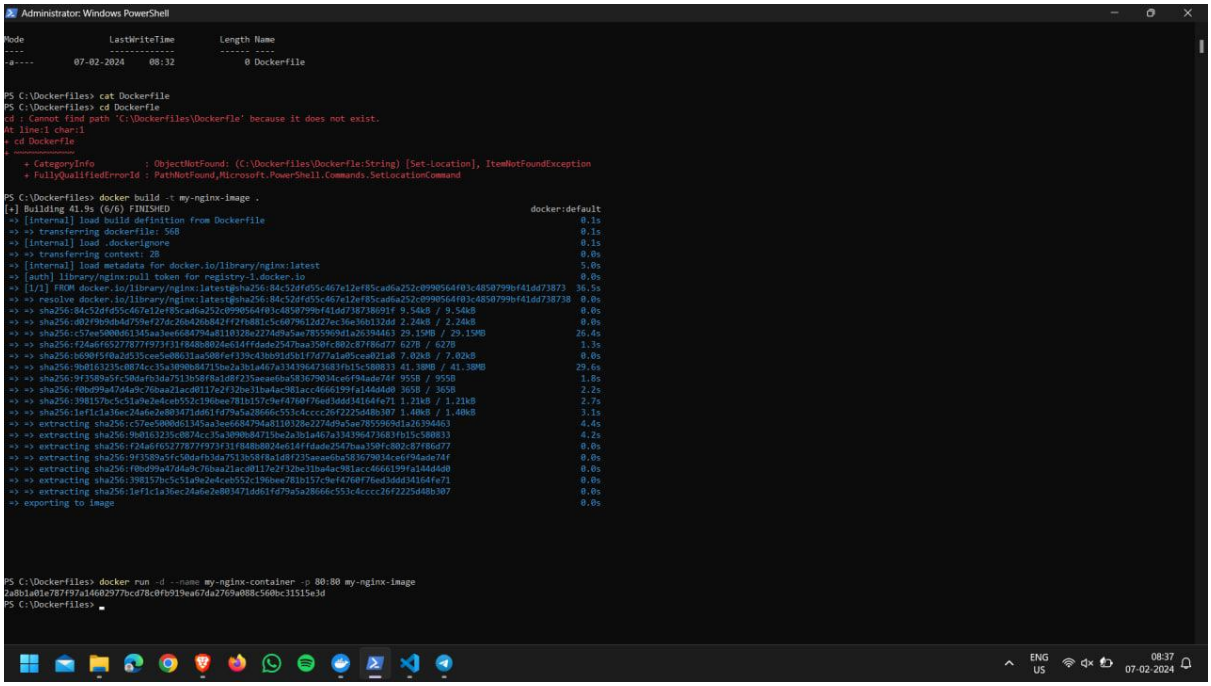


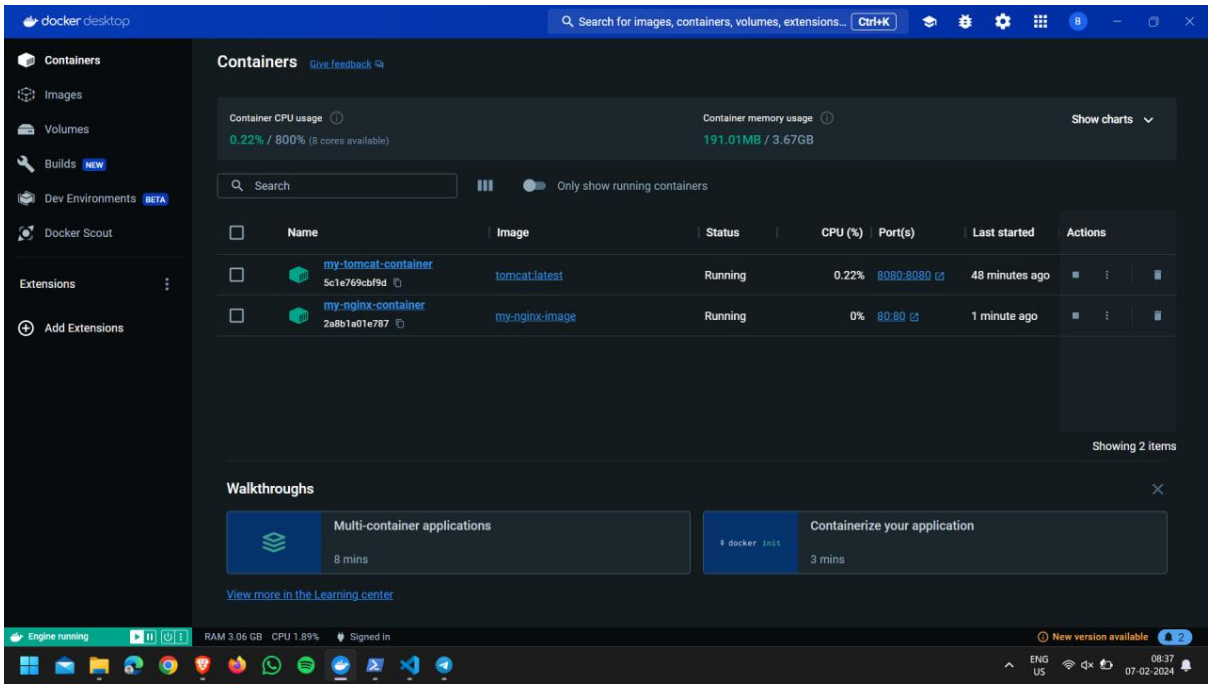


7. To build a container using existing image use following command

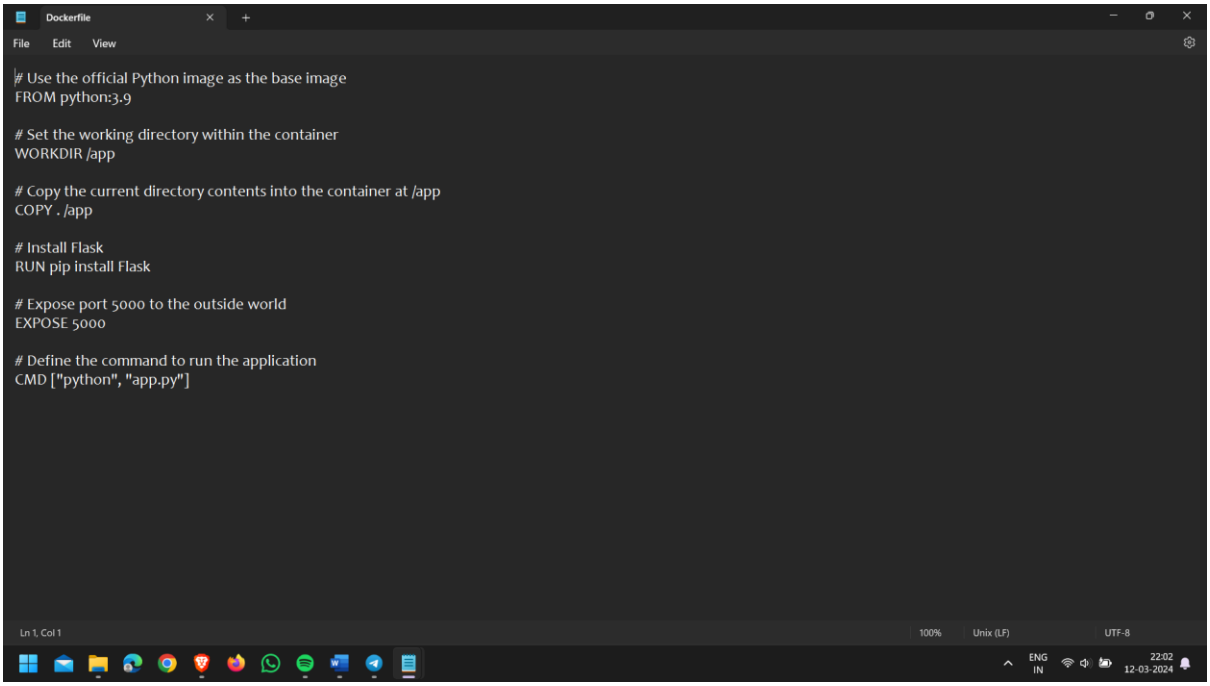
docker build t <image_name> . : Builds a Docker image from a Dockerfile in the current directory.

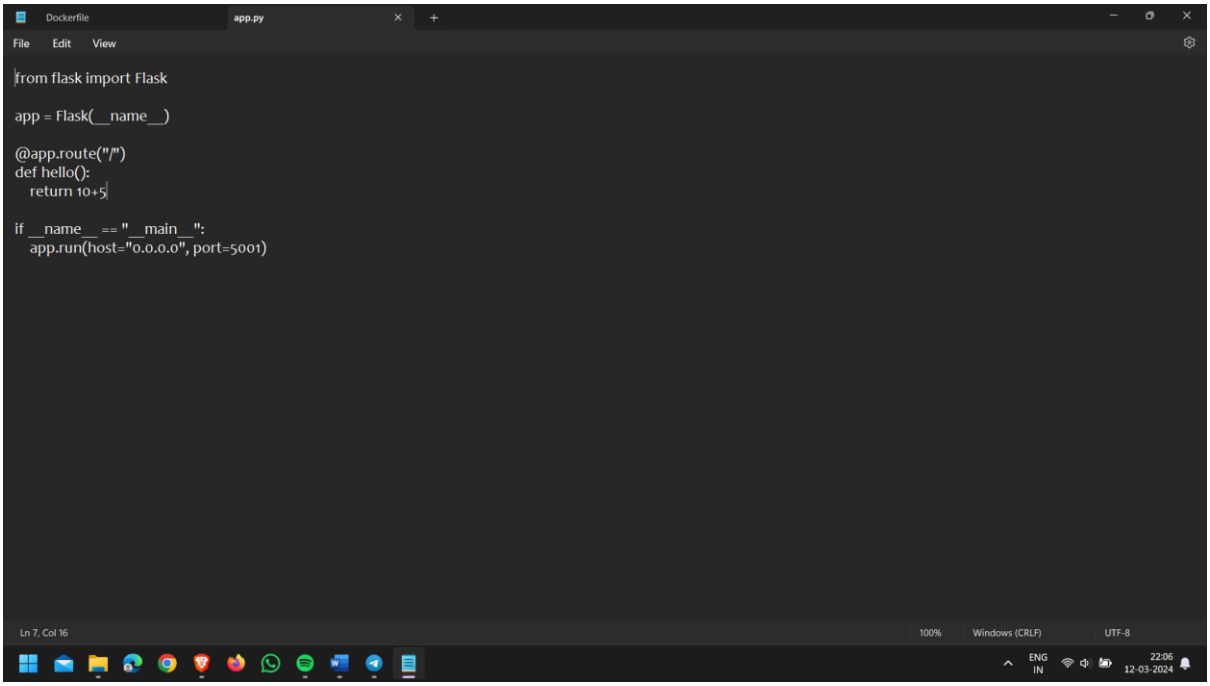
8. To create a nginx container



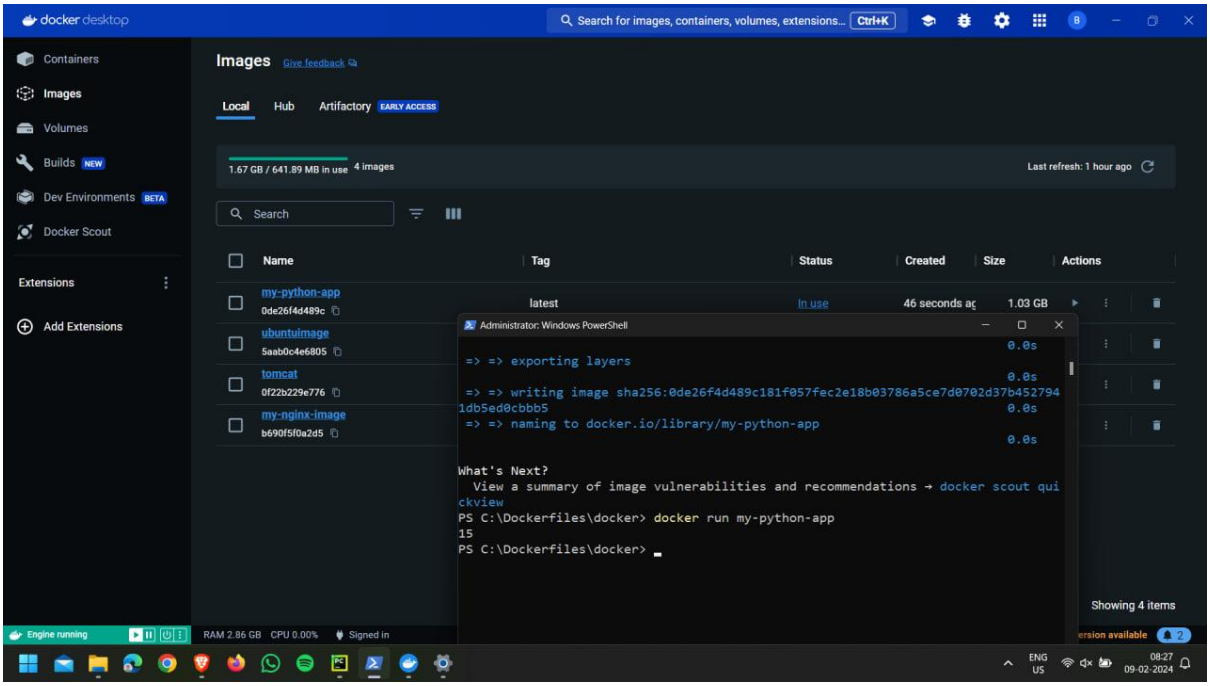


9. We can also use Dockerfile to automate the process of above steps
10. Example of Dockerfile

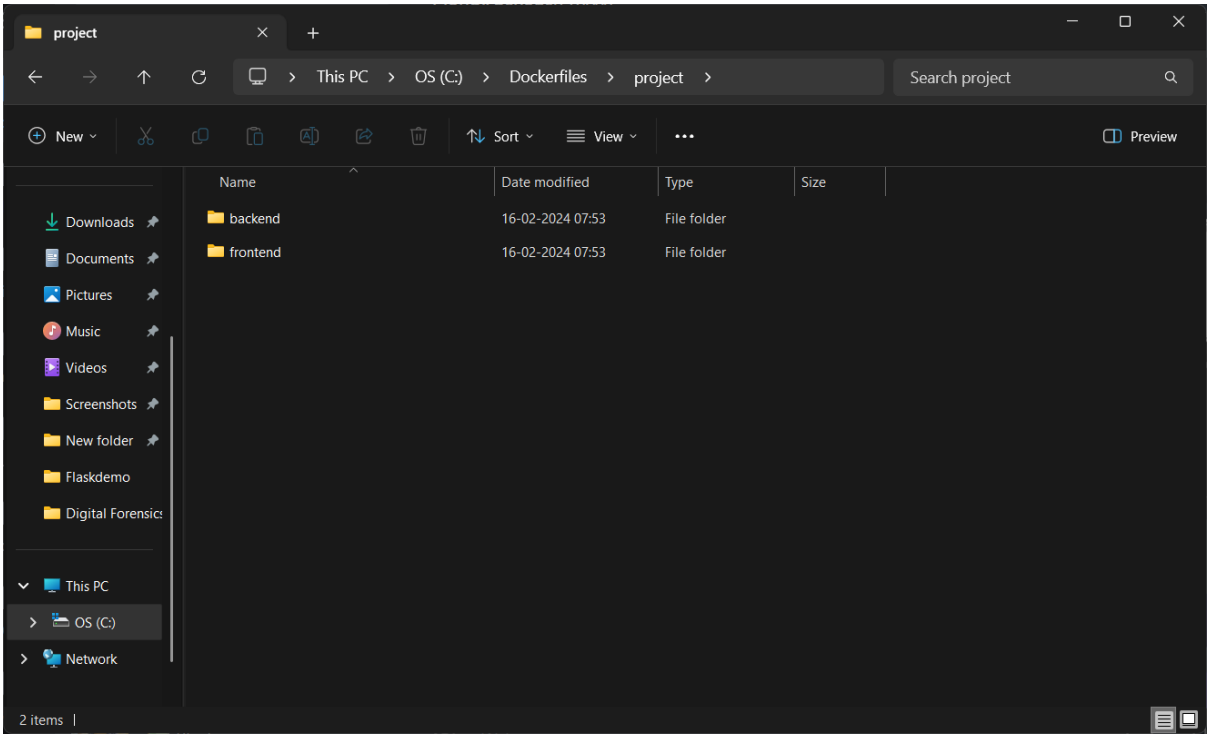




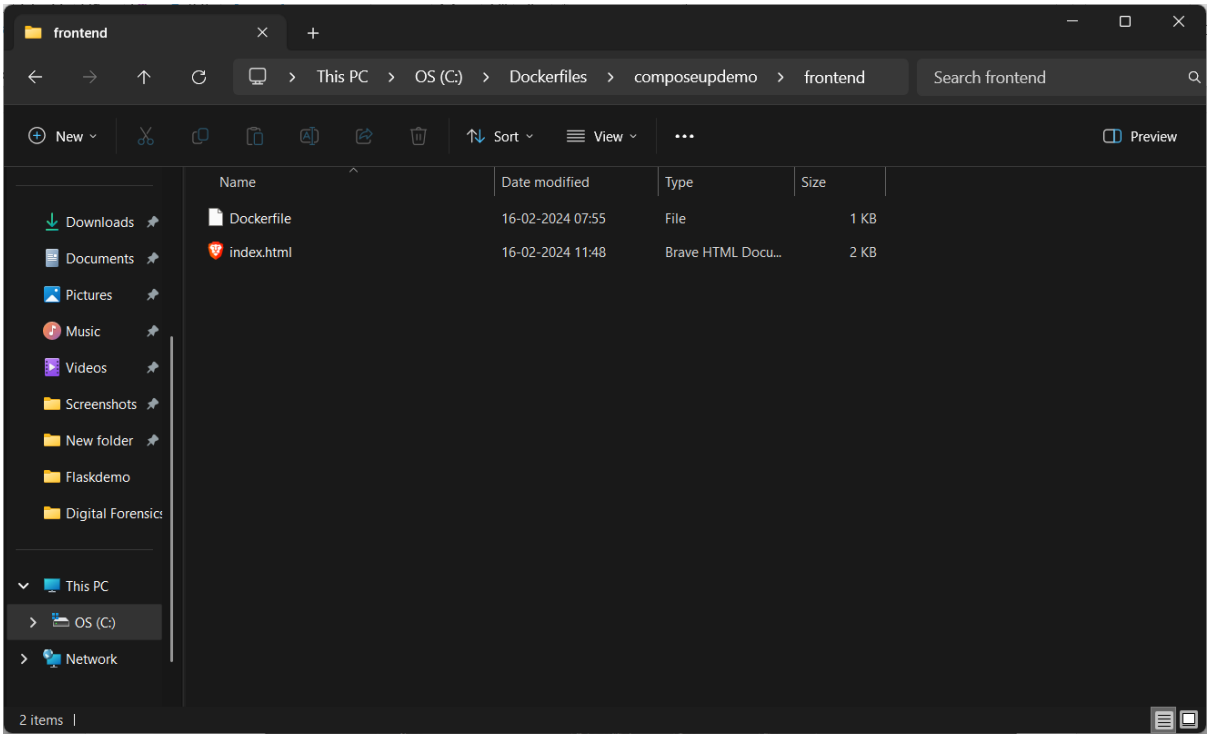
After running the image it runs the app.py file to give output.



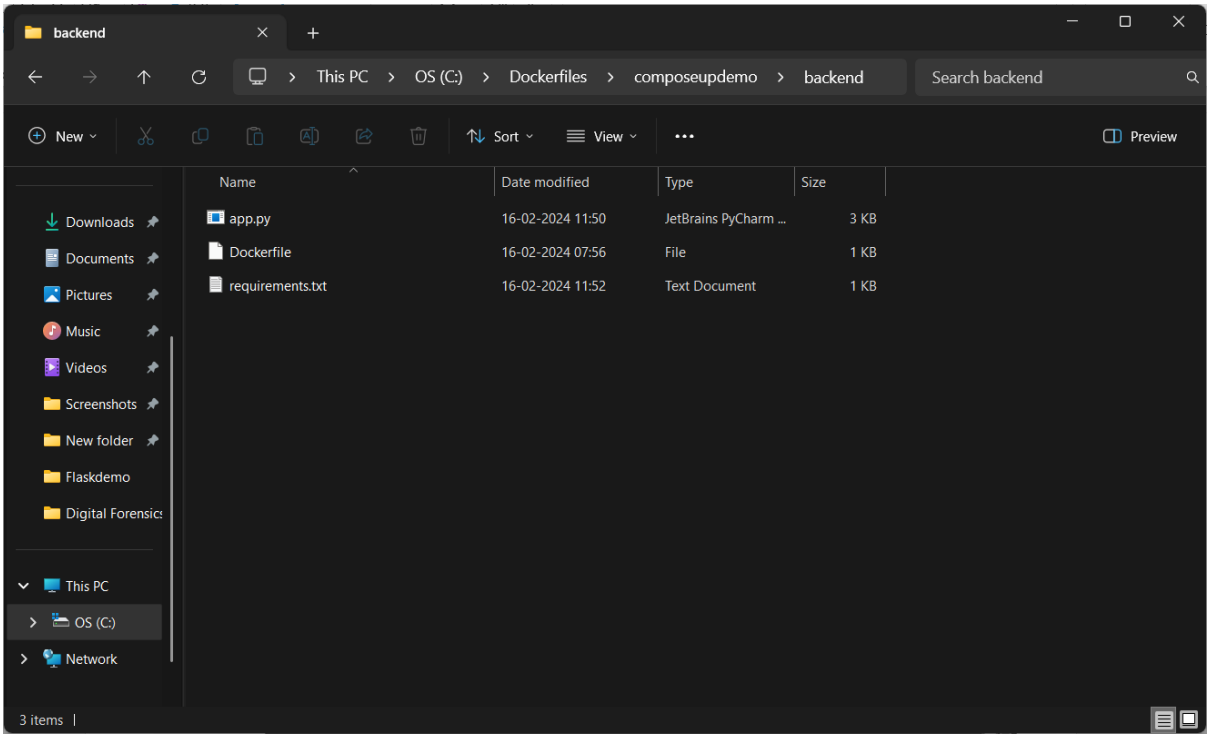
11. To create a development environment we can use **docker compose** to integrate both frontend and backend serves.
12. For that we need to create individual Dockerfile for both frontend and backend.



Frontend

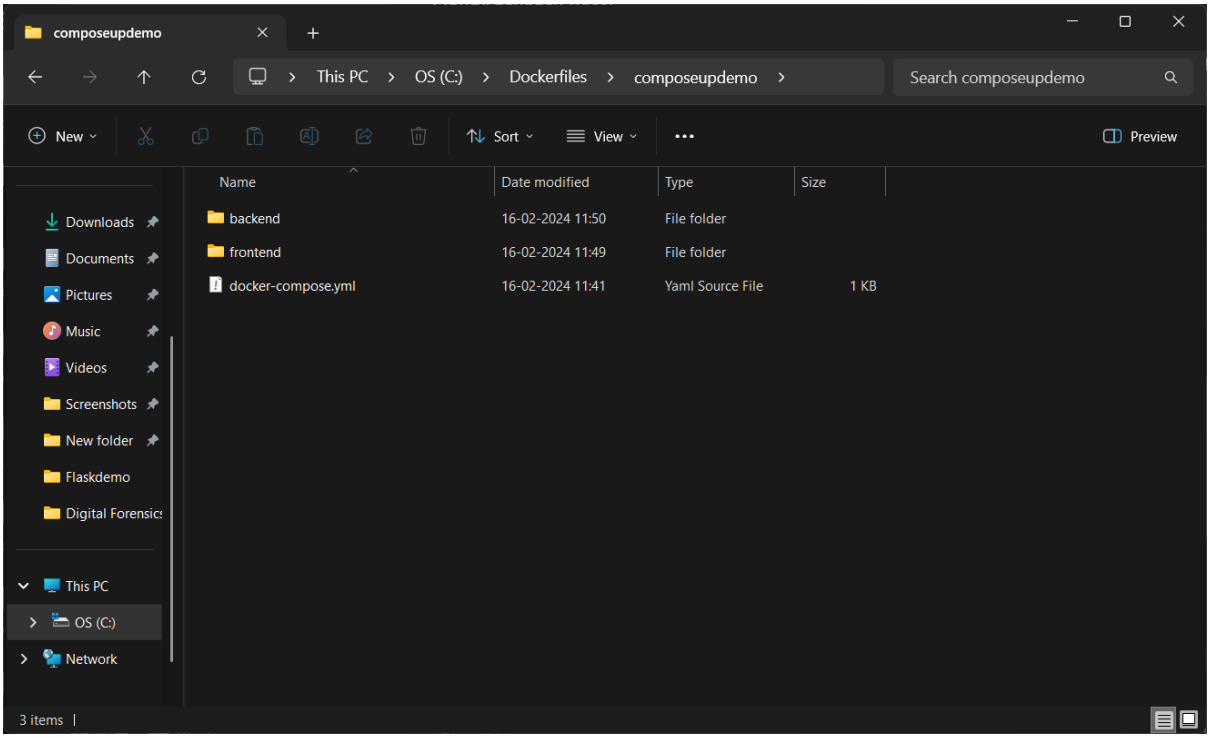


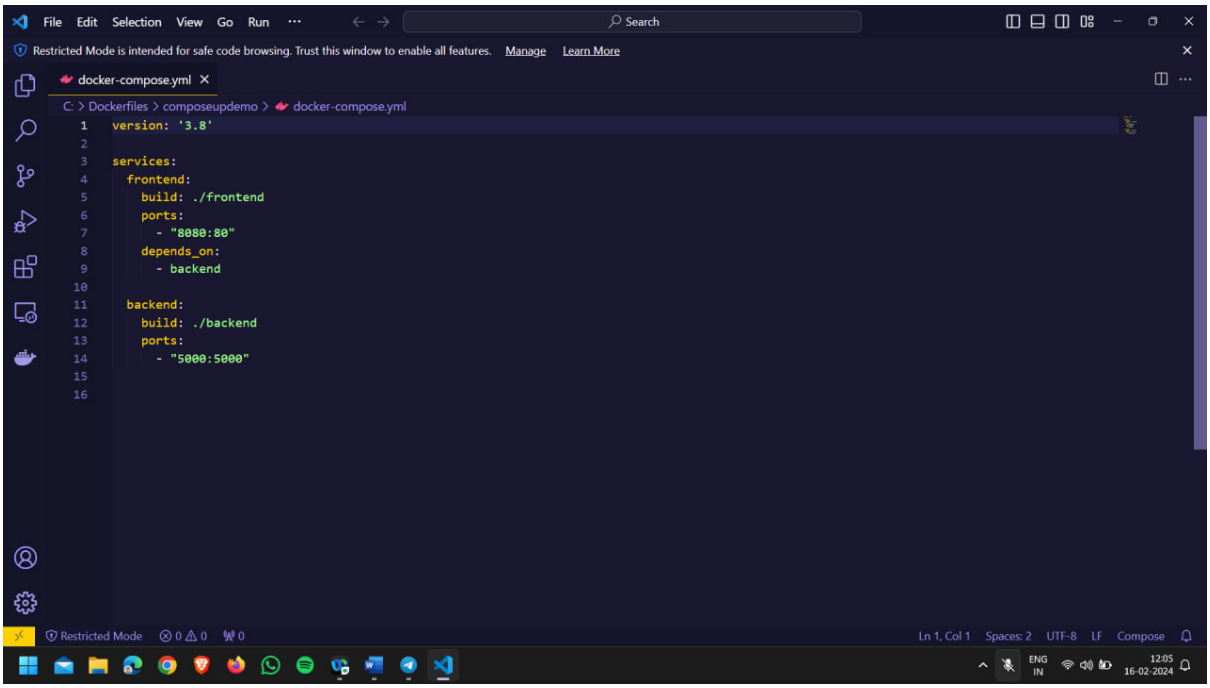
Backend



13. Compose.yml file

Create a compose.yml file.





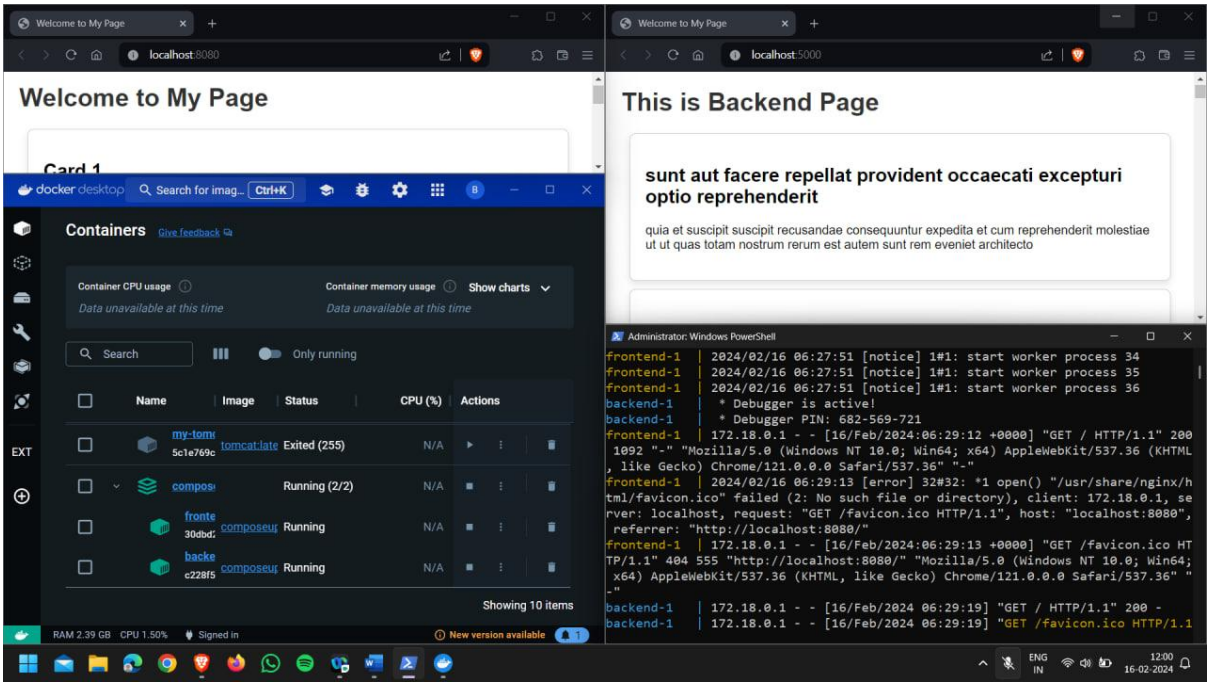
14. After that use this to build image for both frontend and backend

    docker build t <image_name> .

15. Now use this command

    docker-compose up

16. After completion the output
    This shows the containers running and the websites.


Welcome to My Page
localhost:8080
Welcome to My Page
Card 1
Welcome to My Page
localhost:5000
This is Backend Page
sunt aut facere repellat provident occaecati excepturi optio reprehenderit
quia et suscipit suscipit recusandae consequuntur expedita et cum reprehenderit molestiae ut ut quas totam nostrum rerum est autem sunt rem eveniet architecto
docker desktop
Search for imag... Ctrl+K
Containers
Give feedback
Container CPU usage
Data unavailable at this time
Container memory usage
Data unavailable at this time
Show charts
Search
Only running
Name
Image
Status
CPU (%)
Actions
my-tom
5c1e769c
tomcat:late
Exited (255)
N/A
compos
Running (2/2)
N/A
fronte
30dbd
composeur
Running
N/A
backe
c228f5
composeur
Running
N/A
Showing 10 items
RAM 2.39 GB CPU 1.50%
Signed in
New version available
Administrator: Windows PowerShell
frontend-1 | 2024/02/16 06:27:51 [notice] 1#1: start worker process 34
frontend-1 | 2024/02/16 06:27:51 [notice] 1#1: start worker process 35
frontend-1 | 2024/02/16 06:27:51 [notice] 1#1: start worker process 36
backend-1 | * Debugger is active!
backend-1 | * Debugger PIN: 682-569-721
frontend-1 | 172.18.0.1 - - [16/Feb/2024:06:29:12 +0000] "GET / HTTP/1.1" 200 1092 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/121.0.0.0 Safari/537.36" "-"
frontend-1 | 2024/02/16 06:29:13 [error] 32#32: *1 open() "/usr/share/nginx/html/favicon.ico" failed (2: No such file or directory), client: 172.18.0.1, server: localhost, request: "GET /favicon.ico HTTP/1.1", host: "localhost:8080", referrer: "http://localhost:8080/"
frontend-1 | 172.18.0.1 - - [16/Feb/2024:06:29:13 +0000] "GET /favicon.ico HTTP/1.1" 404 555 "http://localhost:8080/" "Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/121.0.0.0 Safari/537.36" "-"
backend-1 | 172.18.0.1 - - [16/Feb/2024 06:29:19] "GET / HTTP/1.1" 200 -
backend-1 | 172.18.0.1 - - [16/Feb/2024 06:29:19] "GET /favicon.ico HTTP/1.1
ENG
IN
12:00
16-02-2024