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Course Name: DevOps
Assignment Name: Module 36 **Theoretical Overview of Docker and Containerization Assignment**.

Task:
Q) Install Docker and create Dockerfiles to containerize applications?
Ans:

For Windows:

1. Go to: https://www.docker.com/products/docker-desktop/

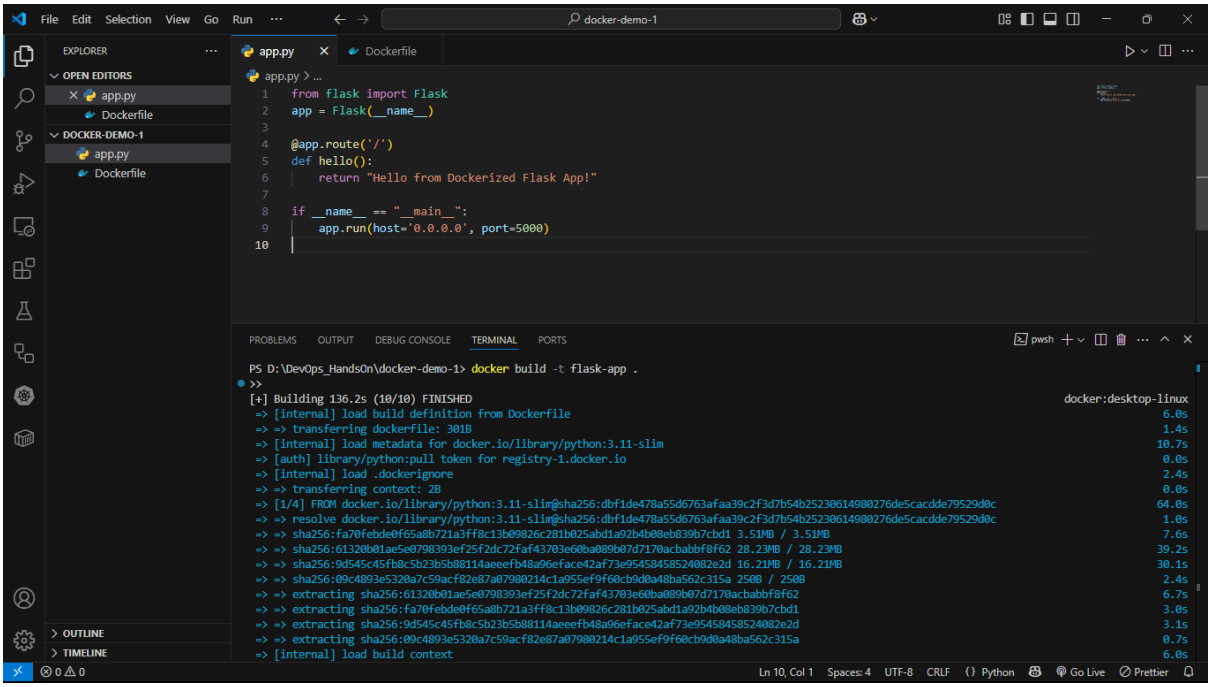
2. Download and install **Docker Desktop**.

3. During installation:

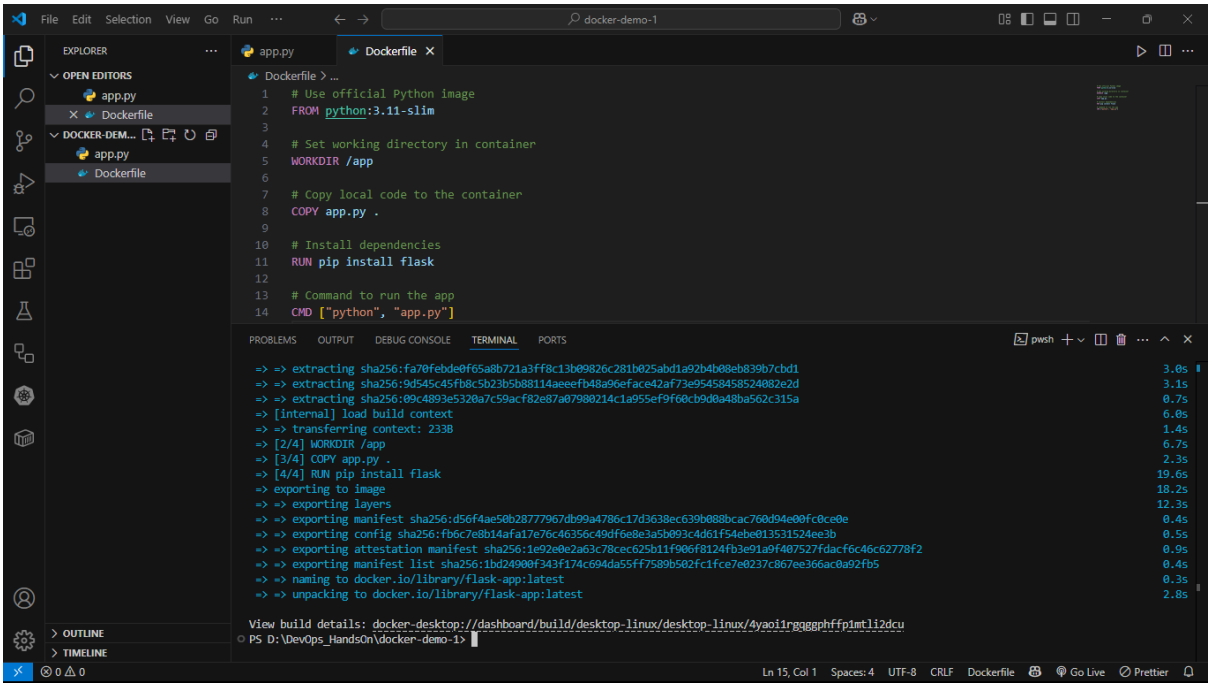
    - Enable WSL 2 backend (recommended)

    - Restart your system if prompted

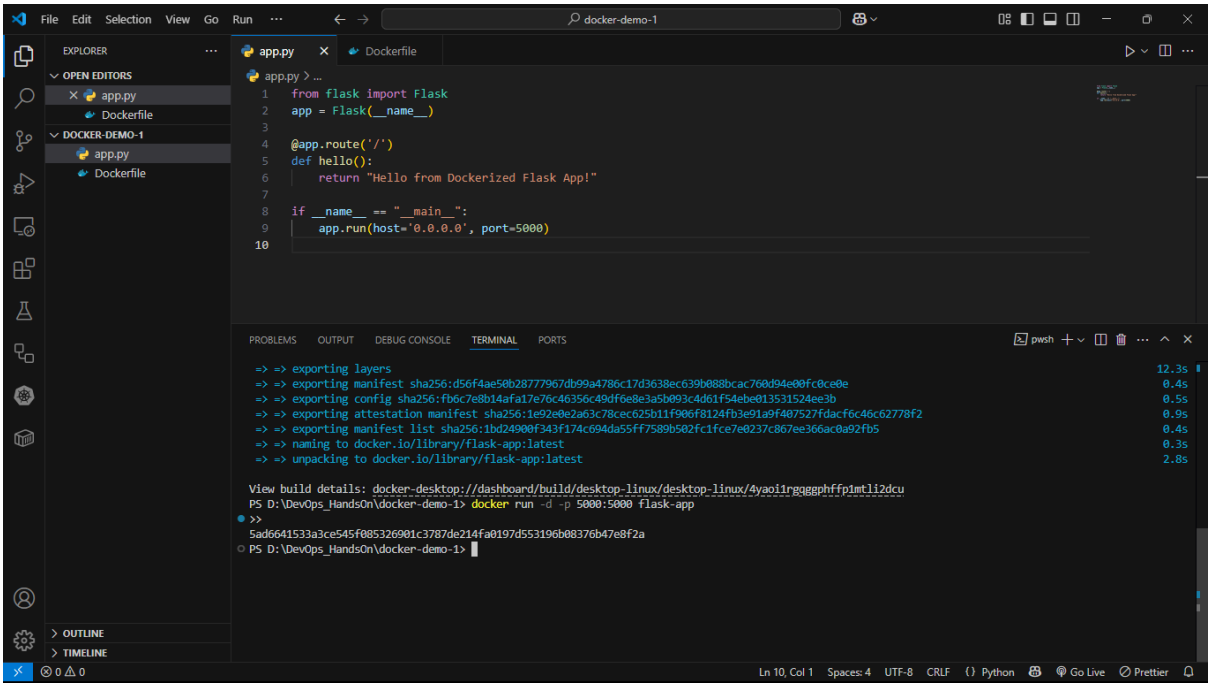
4. After installation, run this to verify:
    - docker version
    - docker info

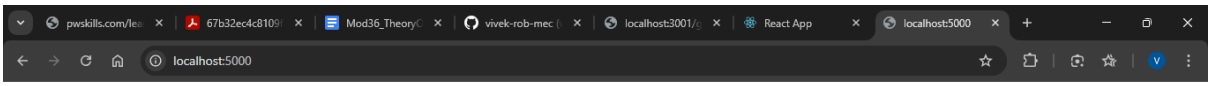


Command: docker build -t flask-app ## here flask-app is image name.



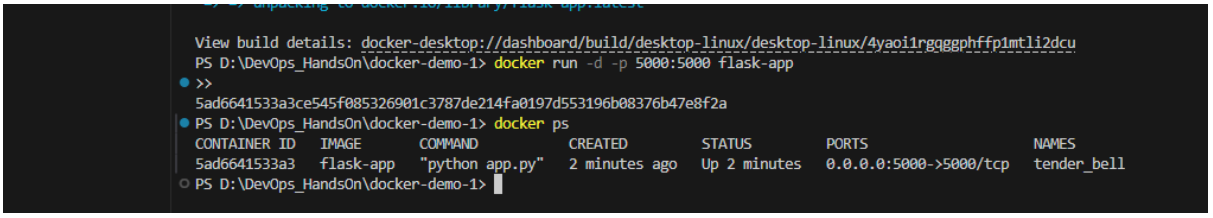
Command: docker run -d -p 5000:5000 flask-app





Hello from Dockerized Flask App!

List container running:



Stop, remove container and delete image:

File Edit Selection View Go Run ... docker-demo-1

EXPLORER

OPEN EDITORS
- app.py
- Dockerfile

DOCKER-DEMO-1
- app.py
- Dockerfile

app.py > ...

```python
from flask import Flask
app = Flask(__name__)

@app.route('/')
def hello():
    return "Hello from Dockerized Flask App!"

if __name__ == "__main__":
    app.run(host='0.0.0.0', port=5000)
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
 => => naming to docker.io/library/flask-app:latest                                   0.3s
 => => unpacking to docker.io/library/flask-app:latest                                2.8s

View build details: docker-desktop://dashboard/build/desktop-linux/desktop-linux/4yaoi1rgqggphffp1mtli2dcu
PS D:\DevOps_HandsOn\docker-demo-1> docker run -d -p 5000:5000 flask-app
>>
5ad6641533a3ce545f085326901c3787de214fa0197d553196b08376b47e8f2a
PS D:\DevOps_HandsOn\docker-demo-1> docker ps
CONTAINER ID   IMAGE       COMMAND           CREATED         STATUS         PORTS                    NAMES
5ad6641533a3   flask-app   "python app.py"   2 minutes ago   Up 2 minutes   0.0.0.0:5000->5000/tcp   tender_bell
PS D:\DevOps_HandsOn\docker-demo-1> docker stop 5ad6641533a3
5ad6641533a3
PS D:\DevOps_HandsOn\docker-demo-1> docker rm 5ad6641533a3
5ad6641533a3
PS D:\DevOps_HandsOn\docker-demo-1> docker rmi flaskp-app
Error response from daemon: No such image: flaskp-app:latest
PS D:\DevOps_HandsOn\docker-demo-1> docker rmi flask-app
Untagged: flask-app:latest
Deleted: sha256:1bd24900f343f174c694da55ff7589b502fc1fce7e0237c867ee366ac0a92fb5
PS D:\DevOps_HandsOn\docker-demo-1>
```

OUTLINE
TIMELINE

0 0 Ln 10, Col 1 Spaces: 4 UTF-8 CRLF {} Python Go Live Prettier