

STEP 1:

Update the packages using the below command

```
sudo: apt: command not found
selya11@LAPTOP-0R6BSQFD:~$ sudo apt update
```

STEP 2:

Install docker using the below command

```
selya11@LAPTOP-0R6BSQFD:~$ sudo apt install docker
```

STEP 3:

Enable , start the docker and verify the version of the docker

```
selya11@LAPTOP-0R6BSQFD:~$ sudo systemctl enable docker
selya11@LAPTOP-0R6BSQFD:~$ sudo systemctl start docker
selya11@LAPTOP-0R6BSQFD:~$ docker --version
```

STEP 4:

Use the curl command

```
selya11@LAPTOP-0R6BSQFD:~$ sudo curl -L "https://github.com/docker/compose/releases/latest/download/docker-compose-$(uname -s)-$(uname -m)" -o /usr/local/bin/docker-compose
% Total % Received % Xferd Average Speed Time Time Time Current
Dload Upload Total Spent Left Speed
0 0 0 0 0 0 0 0 0:00:00 0:00:00 0:00:00 0
100 71.4M 100 71.4M 0 0 299k 0 0:04:04 0:04:04 0:00:00 383k
```

STEP 5:

Verify the Docker version

```
selya11@LAPTOP-0R6BSQFD:~$ sudo chmod +x /usr/local/bin/docker-compose
selya11@LAPTOP-0R6BSQFD:~$ docker-compose --version
Docker Compose version v2.34.0
```

STEP 6:

Create a directory and change into the directory

```
selya11@LAPTOP-0R6BSQFD:~$ mkdir ~/devops-proj
selya11@LAPTOP-0R6BSQFD:~$ cd ~/devops-proj
```

STEP 7:

Create nano file called app.py

```
selya11@LAPTOP-0R6BSQFD:~/devops-proj$ nano app.py
```

STEP 8:

Code for nano app.py

```
selya11@LAPTOP-0R6BSQFD: x + v
GNU nano 7.2
FROM python:3.11
WORKDIR /app
COPY require.txt .
RUN pip install --no-cache-dir -r require.txt
COPY . .
EXPOSE 5000
CMD ["python", "app.py"]
|
```

STEP 9:

Code for docker.yml file

```
selya11@LAPTOP-0R6BSQFD: x + v
GNU nano 7.2
version: '3.8'

services:
  web:
    build: .
    ports:
      - "5000:5000"
    volumes:
      - ./app
    restart: always
```

STEP 10:

Now build docker using the below command

```
selya11@LAPTOP-0R6BSQFD: x + v
[+] Building 1/1
  web Built 0.0s
selya11@LAPTOP-0R6BSQFD:~/devops-proj$ sudo docker-compose up --build
[sudo] password for selya11:
WARN[0000] /home/selya11/devops-proj/docker-compose.yml: the attribute 'version' is obsolete, it will be ignored, please remove it to avoid potential confusion
Compose can now delegate builds to bake for better performance.
To do so, set COMPOSE_BAKE=true.
[+] Building 50.0s (11/11) FINISHED
=> [web internal] load build definition from Dockerfile
=> => transferring dockerfile: 171B 0.0s
=> [web internal] load metadata for docker.io/library/python:3.11 2.2s
=> [web internal] load .dockerignore 0.0s
=> transferring context: 2B 0.0s
=> [web internal] load build context 0.0s
=> transferring context: 122B 0.0s
=> [web 1/5] FROM docker.io/library/python:3.11sha256:80c38e5b6ee556c53b94f79df49134fb0e96c91bdf4d113d1ecd8df5af065a2b3 0.0s
=> CACHED [web 2/5] WORKDIR /app 0.0s
=> CACHED [web 3/5] COPY require.txt . 0.0s
=> CACHED [web 4/5] RUN pip install --no-cache-dir flask 0.0s
=> CACHED [web 4/5] COPY . 0.0s
=> [web] exporting to image 47.5s
=> => exporting layers 0.0s
=> writing image sha256:da39d57b9fe2a81af66d82dcf89ee0f0461147bf2446f49a965232c24f2f208 0.0s
=> naming to docker.io/library/devops-proj-web 0.0s
=> [web] resolving provenance for metadata file 0.0s
[+] Running 3/3
  web Built 0.0s
  Network devops-proj_default Created 0.3s
  Container devops-proj-web-1 Created 0.1s
Attaching to web-1
web-1 | * Serving Flask app 'app'
web-1 | * Debug mode: off
web-1 | WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
web-1 | * Running on all addresses (0.0.0.0)
web-1 | * Running on http://127.0.0.1:5000
web-1 | * Running on http://172.18.0.2:5000
web-1 | Press CTRL+C to quit
web-1 | 172.18.0.1 - - [18/Mar/2025 13:49:35] "GET / HTTP/1.1" 200 -
web-1 | 172.18.0.1 - - [18/Mar/2025 13:49:36] "GET /favicon.ico HTTP/1.1" 404 -
```

STEP 11:

Now run the localhost server in port:5000

