

# Docker Flask Application

- Steps to Create Flask Application

mkdir flask

cd flask

ls

```
ubuntu@ip-172-31-27-216:~$ mkdir flask
ubuntu@ip-172-31-27-216:~$ ls
Docker  awscli.v2.zip  dir1  dir2  flask  img1.tar
ubuntu@ip-172-31-27-216:~$ cd flask
ubuntu@ip-172-31-27-216:~/flask$ ls
ubuntu@ip-172-31-27-216:~/flask$
```

touch file.py requirements.txt Dockerfile

```
ubuntu@ip-172-31-27-216:~/flask$ touch file.py requirements.txt Dockerfile
ubuntu@ip-172-31-27-216:~/flask$ ls
Dockerfile  file.py  requirements.txt
ubuntu@ip-172-31-27-216:~/flask$
```

File.py

Code:

from flask import Flask

app = Flask(\_\_name\_\_)

@app.route('/')  
def home():

    return "Welcome to Flask with Docker!"

if \_\_name\_\_ == "\_\_main\_\_":

    app.run(host="0.0.0.0", port=5000, debug=True)

vi requirements.txt

```
flask
```

Vi Dockerfile

```
FROM python:3.9-slim
WORKDIR /file
COPY . /file
RUN pip install -r requirements.txt
EXPOSE 5000
CMD ["python", "file.py"]
```

Docker build .

```

root@ip-172-31-27-216:/home/ubuntu/flask# docker build .
DEPRECATED: The legacy builder is deprecated and will be removed in a future release.
            Install the buildx component to build images with BuildKit:
            https://docs.docker.com/go/buildx/

Sending build context to Docker daemon  4.096kB
Step 1/6 : FROM python:3.9-slim
--> 085da638e1b8
Step 2/6 : WORKDIR /file
--> Using cache
--> 6915c7d55114
Step 3/6 : COPY . /file
--> dfdda326ca98
Step 4/6 : RUN pip install -r requirements.txt
--> Running in c4b0943400de
Collecting flask
  Downloading flask-3.1.2-py3-none-any.whl (103 kB)
    _____ 103.3/103.3 kB 8.8 MB/s eta 0:00:00
Collecting werkzeug>=3.1.0
  Downloading werkzeug-3.1.4-py3-none-any.whl (224 kB)
    _____ 225.0/225.0 kB 19.7 MB/s eta 0:00:00
Collecting markupsafe>=2.1.1
  Downloading markupsafe-3.0.3-cp39-cp39-manylinux2014_x86_64.manylinux_2_17_x86_64.manylinux_2_
Collecting blinker>=1.9.0
  Downloading blinker-1.9.0-py3-none-any.whl (8.5 kB)
Collecting jinja2>=3.1.2
  Downloading jinja2-3.1.6-py3-none-any.whl (134 kB)
    _____ 134.9/134.9 kB 17.8 MB/s eta 0:00:00

```

## Docker images

```

root@ip-172-31-27-216:/home/ubuntu/flask# docker images

```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
<none>	<none>	430800742503	47 seconds ago	133MB
<none>	<none>	0fca0281cc0a	4 minutes ago	122MB
flask1	latest	cef2bc8e2d9b	17 hours ago	133MB
<none>	<none>	24d2bd61ce35	17 hours ago	133MB
<none>	<none>	a89a6427ef3e	17 hours ago	133MB
<none>	<none>	5626aa053d68	17 hours ago	122MB
<none>	<none>	548b8dbbd32f	17 hours ago	133MB
<none>	<none>	046d0ea535e5	18 hours ago	133MB
<none>	<none>	bbcb3ccd9791	4 days ago	205MB
img1	latest	faa8dd8b5101	6 days ago	152MB
varati/dockerrepo	latest	faa8dd8b5101	6 days ago	152MB

`docker run -d -p 5000:5000 --name flask 430800742503`

```

root@ip-172-31-27-216:/home/ubuntu/flask# docker run -d -p 5000:5000 --name flask 430800742503
9172c02833b7ef3ff35beffcb130e6abe981e2234a8f35c9598e942dec222a9e
root@ip-172-31-27-216:/home/ubuntu/flask# █

```

`docker ps -a`

```

root@ip-172-31-27-216:/home/ubuntu/flask# docker ps -a

```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS
9172c02833b7	430800742503	"python file.py"	44 seconds ago	Up 43 seconds
b5e309f9d093	0fca0281cc0a	"/bin/sh -c 'pip ins...'"	6 minutes ago	Exited (1) 6 minutes ago

```

root@ip-172-31-27-216:/home/ubuntu/flask# █

```

`Docker ps -a`

```
root@ip-172-31-27-216:/home/ubuntu/flask# docker exec -it flask bash
root@9172c02833b7:/file# ls
Dockerfile  file.py  requirements.txt
root@9172c02833b7:/file#
```

exit

Ls

Cat file.py

```
root@9172c02833b7:/file# exit
exit
root@ip-172-31-27-216:/home/ubuntu/flask# ls
Dockerfile  file.py  requirements.txt
root@ip-172-31-27-216:/home/ubuntu/flask# cat file.py
from flask import Flask

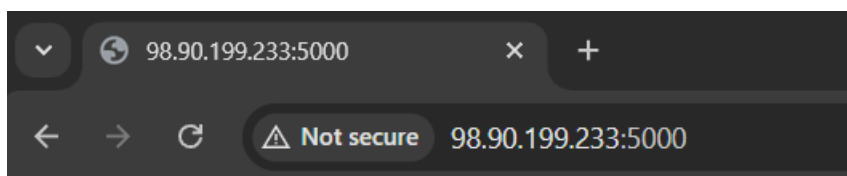
app = Flask(__name__)

@app.route('/')
def home():
    return "Welcome to Flask with Docker!Hello Docker"

if __name__ == "__main__":
    app.run(host="0.0.0.0", port=5000, debug=True)
root@ip-172-31-27-216:/home/ubuntu/flask#
```

Go to instance copy public ip and paste to incongnito site

Public ip:5000(port no)



Welcome to Flask with Docker!Hello Docker