

# 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 awscliv2.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"]
```

```
~  
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```

```
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
--> 6915c7d5114
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

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>	bcbc3ccd9791	4 days ago	205MB
img1	latest	faa8dd8b5101	6 days ago	152MB
yarati/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
9172c02833b7ef3ff35beffc130e6abe981e2234a8f35c9598e942dec222a9e
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

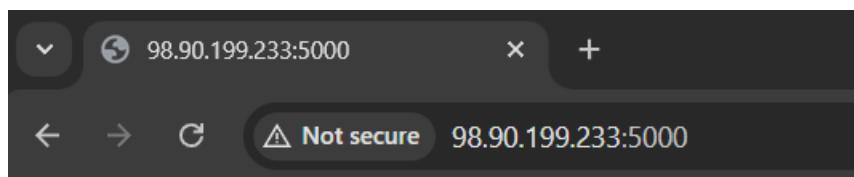
app = Flask(__name__)

@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