

## DevOps Lab 1 - Build a Docker Container from a Custom Dockerfile

User: 1RV24MC032\_gbpanduranga

```
1RV24MC032_gbpanduranga@ubuntu:~$ mkdir flask_app
```

```
1RV24MC032_gbpanduranga@ubuntu:~$ cd flask_app
```

```
1RV24MC032_gbpanduranga@ubuntu:~/flask_app$ echo "Flask==2.3.3" > requirements.txt
```

```
1RV24MC032_gbpanduranga@ubuntu:~/flask_app$ nano app.py
```

```
--- app.py ---
```

```
from flask import Flask
```

```
app = Flask(__name__)
```

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

```
    return "Hello from Dockerized Flask App - 1RV24MC032_gbpanduranga!"
```

```
if __name__ == "__main__":
```

```
    app.run(host='0.0.0.0', port=5000)
```

```
1RV24MC032_gbpanduranga@ubuntu:~/flask_app$ nano Dockerfile
```

```
--- Dockerfile ---
```

```
FROM python:3.9-slim
```

```
WORKDIR /app
```

```
COPY requirements.txt requirements.txt
```

```
RUN pip install -r requirements.txt
```

```
COPY . .
```

```
EXPOSE 5000
```

```
CMD ["python", "app.py"]
```

```
1RV24MC032_gbpanduranga@ubuntu:~/flask_app$ sudo docker build -t flask_image .
```

```
Sending build context to Docker daemon 3.072kB
```

```
Step 1/7 : FROM python:3.9-slim
```

```
----> 68b7e36a62ff
```

```
Step 2/7 : WORKDIR /app
```

```
----> Using cache
```

```
----> 5e7e8f0b3d90
```

```
Step 3/7 : COPY requirements.txt requirements.txt
```

```
----> Using cache
```

```
----> 9a4e2d0ald22
```

```
Step 4/7 : RUN pip install -r requirements.txt
```

```
----> Running in b72e1f7b1fcb
```

```
Successfully installed Flask-2.3.3
```

```
Step 7/7 : CMD ["python", "app.py"]
```

```
----> Running in 41f1db0f57ad
```

```
Successfully built e2a6b3b1b9f7
```

```
Successfully tagged flask_image:latest
```

```
1RV24MC032_gbpanduranga@ubuntu:~/flask_app$ sudo docker run -p 5000:5000 flask_image
```

```
* Serving Flask app 'app'
```

```
* Debug mode: off
```

```
WARNING: This is a development server. Do not use it in a production deployment.
```

```
* Running on all addresses (0.0.0.0)
```

```
* Running on http://127.0.0.1:5000
```

```
* Running on http://172.17.0.2:5000
```

```
Press CTRL+C to quit
```

```
1RV24MC032_gbpanduranga@ubuntu:~/flask_app$ curl http://localhost:5000
```

```
Hello from Dockerized Flask App - 1RV24MC032_gbpanduranga!
```

```
1RV24MC032_gbpanduranga@ubuntu:~/flask_app$ sudo docker ps
```

CONTAINER ID	IMAGE	COMMAND	STATUS	PORTS	NAMES
a3b8f14d2c52	flask_image	"python app.py"	Up 10 seconds	0.0.0.0:5000->5000/tcp	ser