

# DOCKER ASSIGNMENT

```
● PS C:\Users\prati\OneDrive\Desktop\Project Python> docker node
```

```
Usage:  docker node COMMAND
```

```
Manage Swarm nodes
```

```
Commands:
```

demote	Demote one or more nodes from manager in the swarm
inspect	Display detailed information on one or more nodes
ls	List nodes in the swarm
promote	Promote one or more nodes to manager in the swarm
ps	List tasks running on one or more nodes, defaults to current node
rm	Remove one or more nodes from the swarm
update	Update a node

```
Run 'docker node COMMAND --help' for more information on a command.
```

```
● PS C:\Users\prati\OneDrive\Desktop\Project Python> docker network
```

```
Usage:  docker network COMMAND
```

```
Manage networks
```

```
Commands:
```

connect	Connect a container to a network
create	Create a network
disconnect	Disconnect a container from a network
inspect	Display detailed information on one or more networks
ls	List networks
prune	Remove all unused networks
rm	Remove one or more networks

```
Run 'docker network COMMAND --help' for more information on a command.
```

```
○ PS C:\Users\prati\OneDrive\Desktop\Project Python> █
```

```
● PS C:\Users\prati\OneDrive\Desktop\Project Python> docker swarm
```

Usage: docker swarm COMMAND

### Manage Swarm

#### Commands:

ca	Display and rotate the root CA
init	Initialize a swarm
join	Join a swarm as a node and/or manager
join-token	Manage join tokens
leave	Leave the swarm
unlock	Unlock swarm
unlock-key	Manage the unlock key
update	Update the swarm

The screenshot shows a code editor with a file named `first.py` containing the following Python code:

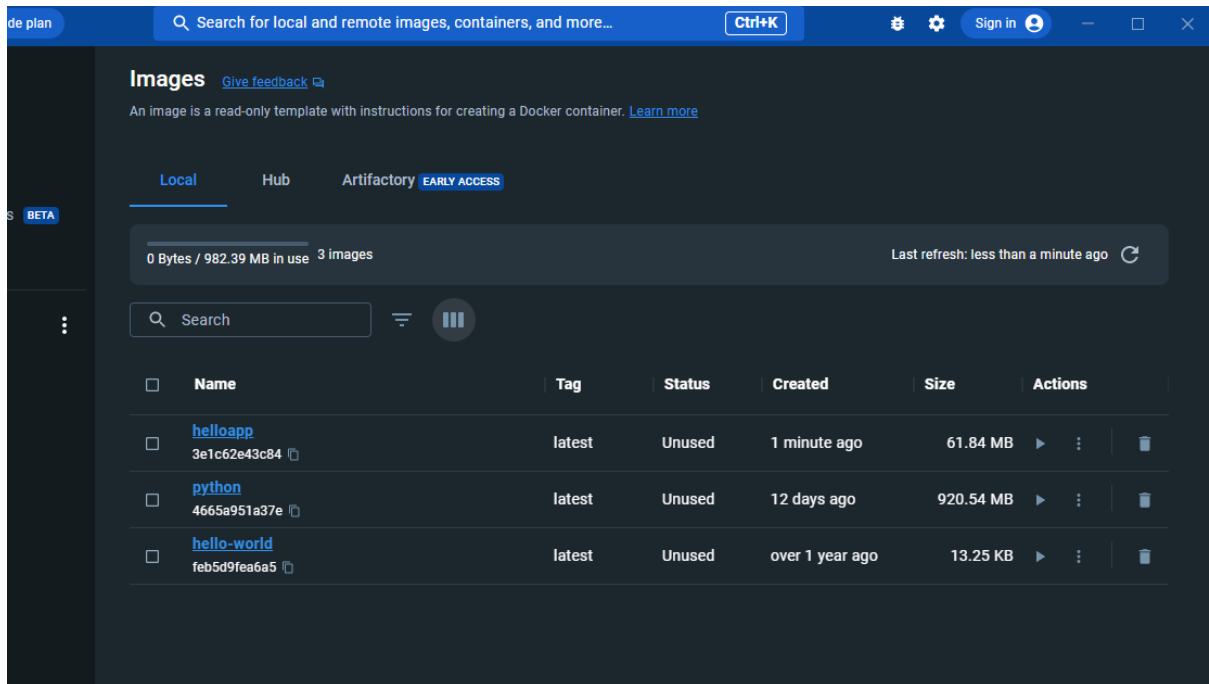
```
1
2 from flask import Flask
3
4
5 app = Flask(__name__)
6 @app.route('/')
7 def index():
8     return 'this is demo'
9
10 app.run(host='0.0.0.0',port =int('3000'),debug=True)
11
```

Below the code editor, the **TERMINAL** tab is active, showing the output of the command `pip install flask` in a PowerShell prompt:

```
PS C:\Users\prati\OneDrive\Desktop\Project Python> pip install flask
DEPRECATION: Python 2.7 reached the end of its life on January 1st, 2020. Please upgrade your Python as Python 2.7 is no longer supported.
Requirement already satisfied: flask in c:\python27\lib\site-packages (1.1.4)
Requirement already satisfied: itsdangerous<2.0,>=0.24 in c:\python27\lib\site-packages (from flask) (1.1.0)
Requirement already satisfied: click<8.0,>=5.1 in c:\python27\lib\site-packages (from flask) (7.1.2)
Requirement already satisfied: Jinja2<3.0,>=2.10.1 in c:\python27\lib\site-packages (from flask) (2.11.3)
Requirement already satisfied: Werkzeug<2.0,>=0.15 in c:\python27\lib\site-packages (from flask) (1.0.1)
Requirement already satisfied: MarkupSafe>=0.23 in c:\python27\lib\site-packages (from Jinja2<3.0,>=2.10.1->flask) (1.1.1)
PS C:\Users\prati\OneDrive\Desktop\Project Python>
```

```
PROBLEMS 1 OUTPUT DEBUG CONSOLE TERMINAL

d
PS C:\Users\prati\OneDrive\Desktop\Project Python> docker build -t helloapp:latest .
[+] Building 0.1s (2/2) FINISHED
PS C:\Users\prati\OneDrive\Desktop\Project Python> docker build -t helloapp:latest .
[+] Building 10.2s (10/10) FINISHED
=> [internal] load build definition from Dockerfile
=> => transferring dockerfile: 173B
=> [internal] load .dockerignore
=> => transferring context: 2B
=> [internal] load metadata for docker.io/library/python:3-alpine3.15
=> [1/5] FROM docker.io/library/python:3-alpine3.15@sha256:1567c44f47c8136752ee4301be2e94130a5f8e1fb7a0e737ccac28fb8f66fd0f
=> => resolve docker.io/library/python:3-alpine3.15@sha256:1567c44f47c8136752ee4301be2e94130a5f8e1fb7a0e737ccac28fb8f66fd0f
=> => sha256:7dcbe358f5cfd2edd07d13dd99b2d780245d81b3917875ed3478dac69ae7fc70 673.38kB / 673.38kB
=> => sha256:c202fc059ff2085bf2bc9f7aeb00c093fd3db159fcc1623a0898cec97ba21d5c 13.07MB / 13.07MB
=> => sha256:1567c44f47c8136752ee4301be2e94130a5f8e1fb7a0e737ccac28fb8f66fd0f 1.65kB / 1.65kB
=> => sha256:e28968291bb92c5950a0382aa3603e273855e8ccd6d73f402fb559566b1fe244 1.37kB / 1.37kB
=> => sha256:c692f3b79c36c5465dbc4b8ed4348a03cd4285fc9419e048bc8e324aaf1aebb 7.03kB / 7.03kB
=> => sha256:9621f1afde84053b2f9b6ff34fc7f7460712247c01cbab483c5fa7132cf782ca 2.82MB / 2.82MB
=> => extracting sha256:9621f1afde84053b2f9b6ff34fc7f7460712247c01cbab483c5fa7132cf782ca
=> => sha256:029c086462bcc047737664d4f322a7e83d923bc049e40f799bc3629c623613c4 230B / 230B
=> => sha256:28eba1c740bb36c3d442bba4d3953cfcdf798b476facc3f7c67988cc5d61a6ad 3.06MB / 3.06MB
=> => extracting sha256:7dcbe358f5cfd2edd07d13dd99b2d780245d81b3917875ed3478dac69ae7fc70
=> => extracting sha256:c202fc059ff2085bf2bc9f7aeb00c093fd3db159fcc1623a0898cec97ba21d5c
=> => extracting sha256:029c086462bcc047737664d4f322a7e83d923bc049e40f799bc3629c623613c4
```



first.py 1

dockerfile

requirements.txt

dockerfile > EXPOSE

1 FROM python:3-alpine3.15

2 WORKDIR /app

3 COPY . /app

4 RUN pip install -r requirements.txt

5 EXPOSE 3000

6 CMD python ./first.py

PROBLEMS 1

OUTPUT

DEBUG CONSOLE

TERMINAL

PS C:\Users\prati\OneDrive\Desktop\Project Python> docker images

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
helloapp	latest	3e1c62e43c84	3 minutes ago	61.8MB
python	latest	4665a951a37e	12 days ago	921MB
hello-world	latest	feb5d9fea6a5	19 months ago	13.3kB

PS C:\Users\prati\OneDrive\Desktop\Project Python>

PS C:\Users\prati\OneDrive\Desktop\Project Python> docker container run -d -p 3000:3000 helloapp:latest

5d742e0bddc04a393bc7aacf1f3adfcc62e99e15960321749a6b832d11ab561c

PS C:\Users\prati\OneDrive\Desktop\Project Python>

PS C:\Users\prati\OneDrive\Desktop\Project Python> docker ps

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
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PS C:\Users\prati\OneDrive\Desktop\Project Python>