

Docker Lab : Docker in AWS and GCP

Exercise 1: Docker in AWS with Python Flask

Lab report screen-shot #1:

```

1 import os
2 from flask import Flask
3 app = Flask(__name__)
4
5 @app.route("/")
6 def main():
7     return "Welcome!"
8
9 @app.route("/how are you")
10 def hello():
11     return "I am good, how about you?"
12
13 if __name__ == "__main__":
14     app.run(host="0.0.0.0", port=8080)
15

```

```

bash - "root@618ab61ca953" Immediate x bash - "ip-172-31-47-37.ec2"
vocstartsoft:~/environment $ docker ps
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS                               NAMES
618ab61ca953   simple-app-image   "/bin/sh -c 'FLASK_A"   7 minutes ago   Up 7 minutes   0.0.0.0:80->80/tcp, :::80->80/tcp   simpleweb
vocstartsoft:~/environment $ docker stop 618
618
vocstartsoft:~/environment $ docker run --name simpleweb2 -d -p 80:5000 simple-app-image
a6656d0fbbcad4317c2a91f9bd032b96ceae93f807ec7f4e794d788f90ae5f52
vocstartsoft:~/environment $ docker inspect simpleweb2
bash: docker: command not found
vocstartsoft:~/environment $ docker ps
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS                               NAMES
a6656d0fbbca   simple-app-image   "/bin/sh -c 'FLASK_A"   About a minute ago   Up About a minute   0.0.0.0:80->5000/tcp, :::80->5000/tcp   simpleweb2
vocstartsoft:~/environment $ docker inspect simpleweb2
[
  {
    "Id": "a6656d0fbbcad4317c2a91f9bd032b96ceae93f807ec7f4e794d788f90ae5f52",
    "Created": "2021-11-30T23:20:25.946895701Z",
    "Path": "/bin/sh",
    "Name": "simpleweb2"
  }
]

```

```

1 FROM ubuntu
2
3 RUN apt-get update
4 RUN apt-get install -y python3 python3-pip
5 RUN pip install flask
6
7 COPY app.py /opt/app.py
8
9 # EXPOSE 80
10
11 ENTRYPOINT FLASK_APP=/opt/app.py flask run --host=0.0.0.0
12

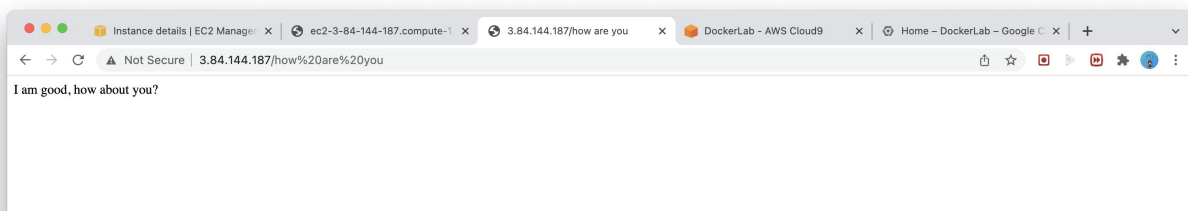
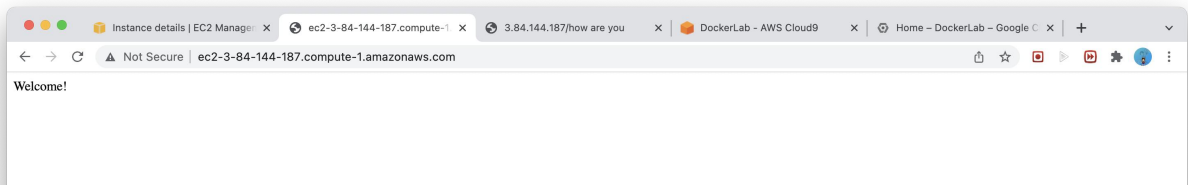
```

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    "Created": "2021-11-30T23:20:25.946895701Z",
    "Path": "/bin/sh",
    "Name": "simpleweb2"
  }
]

```

```
bash - root@618ab61ca93:~# curl -i http://localhost:8080
curl: (7) Failed to connect to localhost port 80: Connection refused
root@618ab61ca93:~# curl http://localhost:8080
curl: (7) Failed to connect to localhost port 8080: Connection refused
root@618ab61ca93:~# curl http://localhost:5000
root@618ab61ca93:~# docker images
docker: 'images' is not a docker command.
See 'docker --help'
root@618ab61ca93:~# docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
icsweb-image         latest             29b3c5efcab8       30 minutes ago     234MB
simple-app-image      latest            a8ffb486c2c        50 minutes ago     417MB
<none>               <none>            f4a89bcafd86       About an hour ago  417MB
ping38972/simple-web latest            6f274ba349a7       16 hours ago       373MB
ubuntu               latest            ba6accedd929       6 weeks ago        72.2MB
ubuntu               16.04             b6f507652425       3 months ago       135MB
lambci/lambda        python3.8          094248252696       10 months ago      524MB
lambci/lambda        nodejs12.x         22a4da8399c        10 months ago      390MB
lambci/lambda        nodejs10.x         db93be728e7b       10 months ago      383MB
lambci/lambda        python3.7           22b4b6fd9268       10 months ago      940MB
lambci/lambda        python3.6           177c85a10179       10 months ago      894MB
lambci/lambda        python2.7           d96a01fe4c88       10 months ago      763MB
lambci/lambda        nodejs8.10         5754fee26e6e       10 months ago      813MB
root@618ab61ca93:~# docker ps
CONTAINER ID        IMAGE               COMMAND                  CREATED             STATUS              PORTS               NAMES
a6656d9fbaca       simple-app-image    "/bin/sh -c 'FLASK_A"  13 minutes ago     Up 13 minutes      0.0.0.0:80->5000/tcp, :::80->5000/tcp  simpleweb2
root@618ab61ca93:~#
```



Exercise 2: Docker in GCP with Python Flask

Lab report screen-shot:

