

Udacity Project 4 – Screen shots

The screenshot shows the AWS Cloud9 IDE interface. The left sidebar displays the file explorer with a project structure including folders like 'DevOps-proj4', 'DevOps_Microservice', and 'project-ml-microserv'. The main editor window shows a Dockerfile with the following content:

```
11 FROM python:3.7.5
12 MAINTAINER myname@example.com
13
14 RUN pip install Flask==1.0.2
15
16 COPY . /app
17
18 EXPOSE 8080
19
20 CMD ["python", "app.py"]
```

The terminal window at the bottom shows the output of a Docker command, displaying a JSON payload and a table of data points:

```
[2021-12-29 07:23:22,158] INFO in app: JSON payload:
{'CHAS': {'0': 0}, 'RM': {'0': 6.575}, 'TAX': {'0': 296.0}, 'PTRATIO': {'0': 15.3}, 'B': {'0': 396.9}, 'LSTAT': {'0': 4.98}}
[2021-12-29 07:23:22,172] INFO in app: Inference payload DataFrame:
   CHAS    RM    TAX  PTRATIO    B  LSTAT
0      0  6.575  296.0    15.3  396.9    4.98
[2021-12-29 07:23:22,181] INFO in app: Scaling Payload:
   CHAS    RM    TAX  PTRATIO    B  LSTAT
0      0  6.575  296.0    15.3  396.9    4.98
172.17.0.1 - - [29/Dec/2021 07:23:22] "POST /predict HTTP/1.1" 200 -
```

The screenshot shows the AWS Cloud9 IDE interface. The left sidebar displays the file explorer with a project structure including folders like 'minikube-linux-arr', 'README.md', 'requirements.txt', 'run_docker.sh', 'run_kubernetes.sl', and 'upload_docker.sh'. The main editor window shows a terminal window with the following content:

```
voclabs:~/environment/DevOps_Microservices/project-ml-microservice-kubernetes (master) $ ./make_prediction.sh
Port: 8080
{
  "prediction": [
    20.35373177134412
  ]
}
voclabs:~/environment/DevOps_Microservices/project-ml-microservice-kubernetes (master) $
```

DevOps-proj4 - AWS Cloud9 x Volumes | EC2 Management Co x Requirements when modifying x how to increase volume in cloud x +

console.aws.amazon.com/cloud9/ide/718b2f9b54a746dbb660691221fb7e5b

File Edit Find View Go Run Tools Window Support Preview Run

Go to Anything (Ctrl-P)

DevOps-proj4 - /h

- DevOps_Microservices
 - Lesson-1-Lambda-ft
 - Lesson-2-Docker-for
 - Lesson-3-Containeri
 - project-ml-microserv
 - model_data
 - output_txt_files
 - docker_out.txt
 - kubernetes_out
 - app.py
 - Dockerfile
 - make_prediction.s
 - Makefile
 - minikube-linux-am
 - README.md
 - requirements.txt
 - run_docker.sh
 - run_kubernetes.sh
 - upload_docker.sh
 - Supporting-material
 - CODEOWNERS
 - LICENSE
 - README.md
 - README.md

Welcome x Makefile x Dockerfile x run_kubernetes.sh x upload_docker.sh x

```
5 # Step 1:
6 # Create dockerpath
7 # dockerpath=<your docker ID/path>
8 # dockerpath=shiv12234/uda-p4
9
10
11 # Step 2:
12 # Authenticate & tag
13 # docker login --username=shiv12234
14 # docker tag uda-p4 $dockerpath
15 # echo "Docker ID and Image: $dockerpath"
16
17 # Step 3:
18 # Push image to a docker repository
19 # docker push $dockerpath
20
```

20:1 SH Spaces: 4

bash - /ip-172-31-30-239.x Immediate x bash - /ip-172-31-30-239.x

WARNING! Your password will be stored unencrypted in /home/ec2-user/.docker/config.json.
Configure a credential helper to remove this warning. See
<https://docs.docker.com/engine/reference/commandline/login/#credentials-store>

Login Succeeded
Docker ID and Image: shiv12234/uda-p4
Using default tag: latest
The push refers to repository [docker.io/shiv12234/uda-p4]
1aadaa29e096: Pushed
299c123e75e3: Pushed
0b9d4bdb9e29: Pushed
799a7872c8c7: Mounted from library/python
715450468940: Mounted from library/python
c9d608035aef: Mounted from library/python
bb9c02680a15: Mounted from library/python
a637c551a0da: Mounted from library/python
2c8d31157b81: Mounted from library/python
7b76d001397d: Mounted from library/python
f32868cde90b: Mounted from library/python
0db06dff9d9a: Mounted from library/python
latest: digest: sha256:3aab378925b0043aa5215fcb8c4cc07924f88a8622dbbf57c92085b0bcab5afe size: 2850
(.devops) voclabs:~/environment/DevOps_Microservices/project-ml-microservice-kubernetes (master) \$

Activate Windows
Go to Settings to activate Windows.

master* AWS

The screenshot shows a VS Code editor with a file explorer on the left and a terminal window at the bottom. The file explorer shows a project structure for 'DevOps-proj4' with files like 'Makefile', 'run_kubernetes.sh', and 'upload_docker.sh'. The terminal window shows the output of a Kubernetes deployment and a prediction script.

```
1 <paste log output from Kubernetes-mediated prediction, here>
2 (.devops) voclabs:~/environment/DevOps_Microservices/project-ml-microservice-kubernetes (master) $ kubectl get podsNAME
3 udacity-7df849fdc7-b4hc7 1/1 Running 0 48s
4 (.devops) voclabs:~/environment/DevOps_Microservices/project-ml-microservice-kubernetes (master) $ kubectl port-forward deployment/uda
5 Forwarding from 127.0.0.1:8000 -> 80
6 Forwarding from [::]:8000 -> 80
7 Handling connection for 8000
8
9 voclabs:~/environment/DevOps_Microservices/project-ml-microservice-kubernetes (master) $ ./make_prediction.sh
10 Port: 8000
11 {
12   "prediction": [
13     20.35373177134412
14   ]
15 }
```

```
(.devops) voclabs:~/environment/DevOps_Microservices/project-ml-microservice-kubernetes (master) $ dockerpath=shiv12234/uda-p4
(.devops) voclabs:~/environment/DevOps_Microservices/project-ml-microservice-kubernetes (master) $ kubectl create deployment udacity --ima
ge=$dockerpath:latest
deployment.apps/udacity created
(.devops) voclabs:~/environment/DevOps_Microservices/project-ml-microservice-kubernetes (master) $ kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
udacity-7df849fdc7-b4hc7 0/1     ContainerCreating 0          9s
(.devops) voclabs:~/environment/DevOps_Microservices/project-ml-microservice-kubernetes (master) $ kubectl port-forward deployment/udacity
8000:80
error: unable to forward port because pod is not running. Current status=Pending
(.devops) voclabs:~/environment/DevOps_Microservices/project-ml-microservice-kubernetes (master) $ kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
udacity-7df849fdc7-b4hc7 1/1     Running   0          48s
(.devops) voclabs:~/environment/DevOps_Microservices/project-ml-microservice-kubernetes (master) $ kubectl port-forward deployment/udacity
8000:80
Forwarding from 127.0.0.1:8000 -> 80
Forwarding from [::]:8000 -> 80
Handling connection for 8000
Handling connection for 8000
```

The screenshot shows a terminal window with the output of a prediction script. The output is a JSON object containing a prediction value.

```
voclabs:~/environment/DevOps_Microservices/project-ml-microservice-kubernetes (master) $ ./make_prediction.sh
Port: 8000
{
  "prediction": [
    20.35373177134412
  ]
}
voclabs:~/environment/DevOps_Microservices/project-ml-microservice-kubernetes (master) $
```

The screenshot shows a terminal window with the output of 'minikube stop' and 'minikube dashboard' commands. The output indicates that the cluster is being stopped and that the control plane is not running.


```
minikube stop
E1229 08:36:30.125669 33834 portforward.go:233] lost connection to pod
(.devops) voclabs:~/environment/DevOps_Microservices/project-ml-microservice-kubernetes (master) $
(.devops) voclabs:~/environment/DevOps_Microservices/project-ml-microservice-kubernetes (master) $ minikube dashboard
! This control plane is not running! (state=Stopped)
! This is unusual - you may want to investigate using "minikube logs"
👉 To start a cluster, run: "minikube start"
(.devops) voclabs:~/environment/DevOps_Microservices/project-ml-microservice-kubernetes (master) $ kubectl get pods
The connection to the server 192.168.49.2:8443 was refused - did you specify the right host or port?
(.devops) voclabs:~/environment/DevOps_Microservices/project-ml-microservice-kubernetes (master) $ minikube stop
🛑 Stopping node "minikube" ...
🔴 Powering off "minikube" via SSH ...
🟢 1 node stopped.
(.devops) voclabs:~/environment/DevOps_Microservices/project-ml-microservice-kubernetes (master) $
```

DevOps_Microservices


 Connect your team




 Edit Config

Filters

 Everyone's Pipelines ▼

 DevOps_Microservices ▼

 All Branches ▼

Pipeline	Status	Workflow	Branch / Commit
DevOps_Microservices 1	 Success	workflow	 master 68b760a project4
Jobs	 build 1		