
Capstone

Udacity-DevOps-Engineer-Capstone

Dec 2021

ISSUED BY

Eslam Samy Hosney

REPRESENTATIVE

eslamsamymeg@gmail.com

Git link

<https://github.com/EslamHosney/Udacity-DevOps-Engineer-Capstone>

lint-Python

```
run python lint 3s [copy] [download]

1  #!/bin/bash -eo pipefail
2  . venv/bin/activate
3  pylint --disable=R,C,W1203,W1202 app.py
4
5  ***** Module app
6  app.py:7:0: W0104: Statement seems to have no effect (pointless-statement)
7  app.py:7:0: E0602: Undefined variable 'aaaaaaa' (undefined-variable)
8
9  -----
10 Your code has been rated at 1.43/10
11
12
13 Exited with code exit status 6
14 CircleCI received exit code 6
```

lint-Docker

```
run lint 0s [copy] [download]

1  #!/bin/bash -eo pipefail
2  . venv/bin/activate
3  hadolint Dockerfile
4
5  Dockerfile:25:1 unexpected 'a' expecting '#', ADD, ARG, CMD, COPY, ENTRYPOINT, ENV, EXPOSE, FROM, HEALTHCHECK, LABEL
6
7  Exited with code exit status 1
8  CircleCI received exit code 1
```

test-app

```
===== test session starts =====
platform linux -- Python 3.7.3, pytest-6.2.5, py-1.11.0, pluggy-1.0.0
rootdir: /root/repo
collecting ... collected 0 items / 1 error

===== ERRORS =====
_____ ERROR collecting test_api.py _____
test_api.py:2: in <module>
    from app import app
app.py:7: in <module>
    aaaaaaa
E   NameError: name 'aaaaaaa' is not defined
===== warnings summary =====
venv/lib/python3.7/site-packages/flask/sessions.py:14
/root/repo/venv/lib/python3.7/site-packages/flask/sessions.py:14: DeprecationWarning: Using or importing the ABC
    from collections import MutableMapping

-- Docs: https://docs.pytest.org/en/stable/warnings.html
===== short test summary info =====
ERROR test_api.py - NameError: name 'aaaaaaa' is not defined
!!!!!!!!!!!!!!!!!!!! Interrupted: 1 error during collection !!!!!!!!!!!!!!!!!!!!!
===== 1 warning, 1 error in 0.45s =====

Exited with code exit status 2
CircleCI received exit code 2
```

Security-app

```
run app.py 0s [copy] [download]

5 [main] INFO profile include tests: None
6 [main] INFO profile exclude tests: None
7 [main] INFO cli include tests: None
8 [main] INFO cli exclude tests: None
9 [main] INFO running on Python 3.7.3
10 [node_visitor] INFO Unable to find qualified name for module: app.py
11 Run started:2021-12-04 13:31:45.147592
12
13 Test results:
14 >> Issue: [B201:flask_debug_true] A Flask app appears to be run with debug=True, which exposes the Werkzeug deb
15 Severity: High Confidence: Medium
16 Location: app.py:10:4
17 More Info: https://bandit.readthedocs.io/en/latest/plugins/b201_flask_debug_true.html
18 9 if __name__ == "__main__":
19 10 app.run(host='0.0.0.0', port=80, debug=True)
20
21 -----
22 >> Issue: [B104:hardcoded_bind_all_interfaces] Possible binding to all interfaces.
23 Severity: Medium Confidence: Medium
24 Location: app.py:10:17
25 More Info: https://bandit.readthedocs.io/en/latest/plugins/b104_hardcoded_bind_all_interfaces.html
26 9 if name == " main ":
```

Add env vars to CircleCI

| Name | Value | Add Environment Variable | Import Variables |
|-----------------------|----------|--------------------------|------------------|
| AWS_ACCESS_KEY_ID | xxxxYXPC | | × |
| AWS_DEFAULT_REGION | xxxst-1 | | × |
| AWS_SECRET_ACCESS_KEY | xxxxPQYc | | × |

New Image built



```
119 ---> 79c6ef74dab0
120 Step 6/7 : EXPOSE 80
121 ---> Running in 2e4elc8daeeef
122 Removing intermediate container 2e4elc8daeeef
123 ---> f0bf5e38e00f
124 Step 7/7 : CMD ["python", "app.py"]
125 ---> Running in ec1896912f7b
126 Removing intermediate container ec1896912f7b
127 ---> 94b7ed00fa0c
128 Successfully built 94b7ed00fa0c
129 Successfully tagged *****/udacity_devops_engineer_capstone:latest
130 WARNING! Your password will be stored unencrypted in /home/circleci/.docker/config.json.
131 Configure a credential helper to remove this warning. See
132 https://docs.docker.com/engine/reference/commandline/login/#credentials-store
133
134 Login Succeeded
135 The push refers to repository [docker.io/*****/udacity_devops_engineer_capstone]
136
```

New image pushed to Dockerhub

Tags and Scans

VULNERABILITY SCANNING - DISABLED [Enable](#)

This repository contains 1 tag(s).

| TAG | OS | PULLED | PUSHED |
|--|---|-------------------|-----------------|
|  latest |  | a few seconds ago | a few second... |

[See all](#)

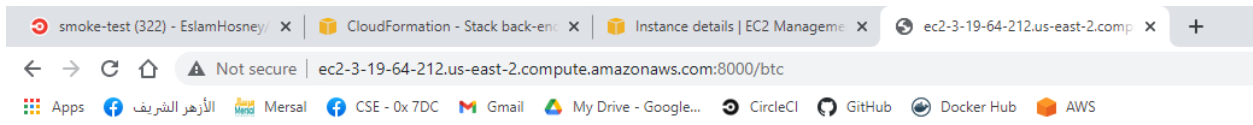
Service running on server

```
Last login: Mon Dec 6 18:26:07 2021 from 44.200.105.204
ubuntu@ip-172-31-22-128:~$ curl http://localhost:8000
curl: (7) Failed to connect to localhost port 8000: Connection refused
ubuntu@ip-172-31-22-128:~$ curl http://localhost:8000
curl: (7) Failed to connect to localhost port 8000: Connection refused
ubuntu@ip-172-31-22-128:~$ curl http://localhost:8000
Hello, World!ubuntu@ip-172-31-22-128:~$
ubuntu@ip-172-31-22-128:~$
```

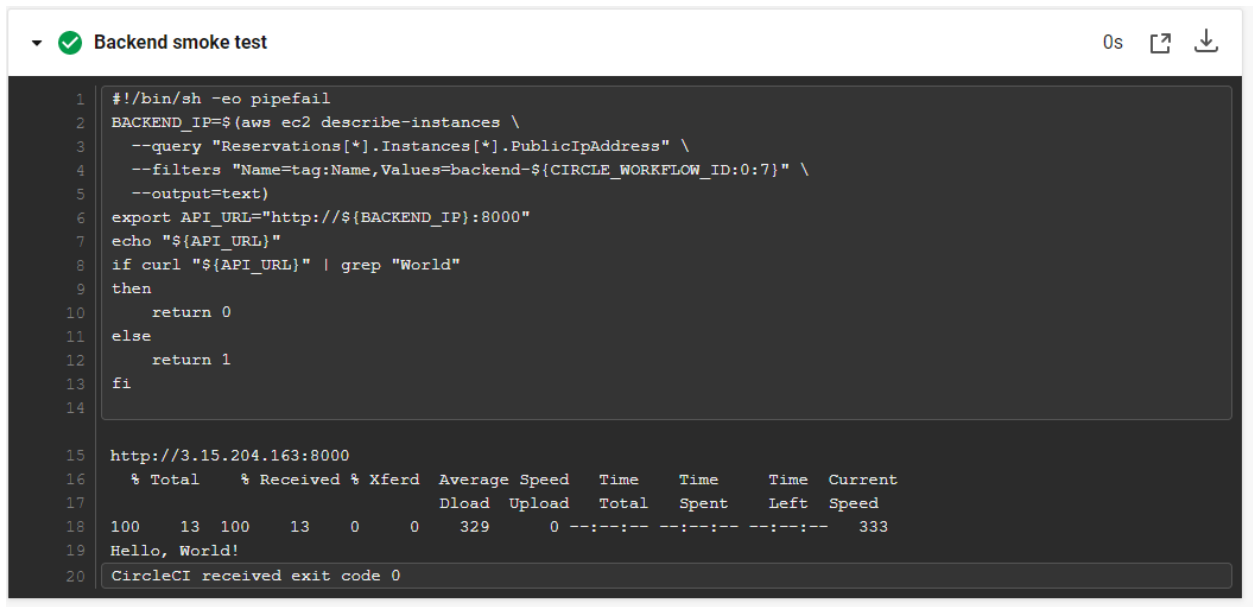
Kubernetes cluster running on server

```
curl: (7) Failed to connect to localhost port 8000: Connection refused
ubuntu@ip-172-31-22-128:~$ curl http://localhost:8000
Hello, World!ubuntu@ip-172-31-22-128:~$
ubuntu@ip-172-31-22-128:~$
ubuntu@ip-172-31-22-128:~$
ubuntu@ip-172-31-22-128:~$ kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
udacity-devops-engineer-capstone-deploy 1/1     Running   0           95s
ubuntu@ip-172-31-22-128:~$
ubuntu@ip-172-31-22-128:~$
ubuntu@ip-172-31-22-128:~$
```











BTC API running











Smoke test



Dev branch

| Pipeline | Status | Workflow | Branch / Commit | Start | Duration | Actions |
|-------------------------------------|---|-----------------------|---|--------|----------|--|
| Udacity-DevOps-Engineer-Capstone 99 | Success | default |  dev 66aa14a Add dev branch | 2m ago | 1m 48s |    .. |
| Jobs | | | | | | |
| |  | print-workflow-id 331 | | | 2s | |
| |  | lint-Python 332 | | | 12s | |
| |  | lint-Dockerfile 333 | | | 14s | |
| |  | test-app 335 | | | 10s | |
| |  | security-app 337 | | | 10s | |
| |  | build-image 339 | | | 1m 0s | |

Blue Green test

| <input type="checkbox"/> | Name | Instance ID | Instance state | Instance type | Status check |
|--------------------------|-----------------|---------------------|--|---------------|---|
| <input type="checkbox"/> | backend-df66145 | i-0ee1446744fc23249 |  Running   | t2.medium |  2/2 checks passed |
| <input type="checkbox"/> | backend-b0f4291 | i-0970bb8268ee8804b |  Running   | t2.medium |  2/2 checks passed |