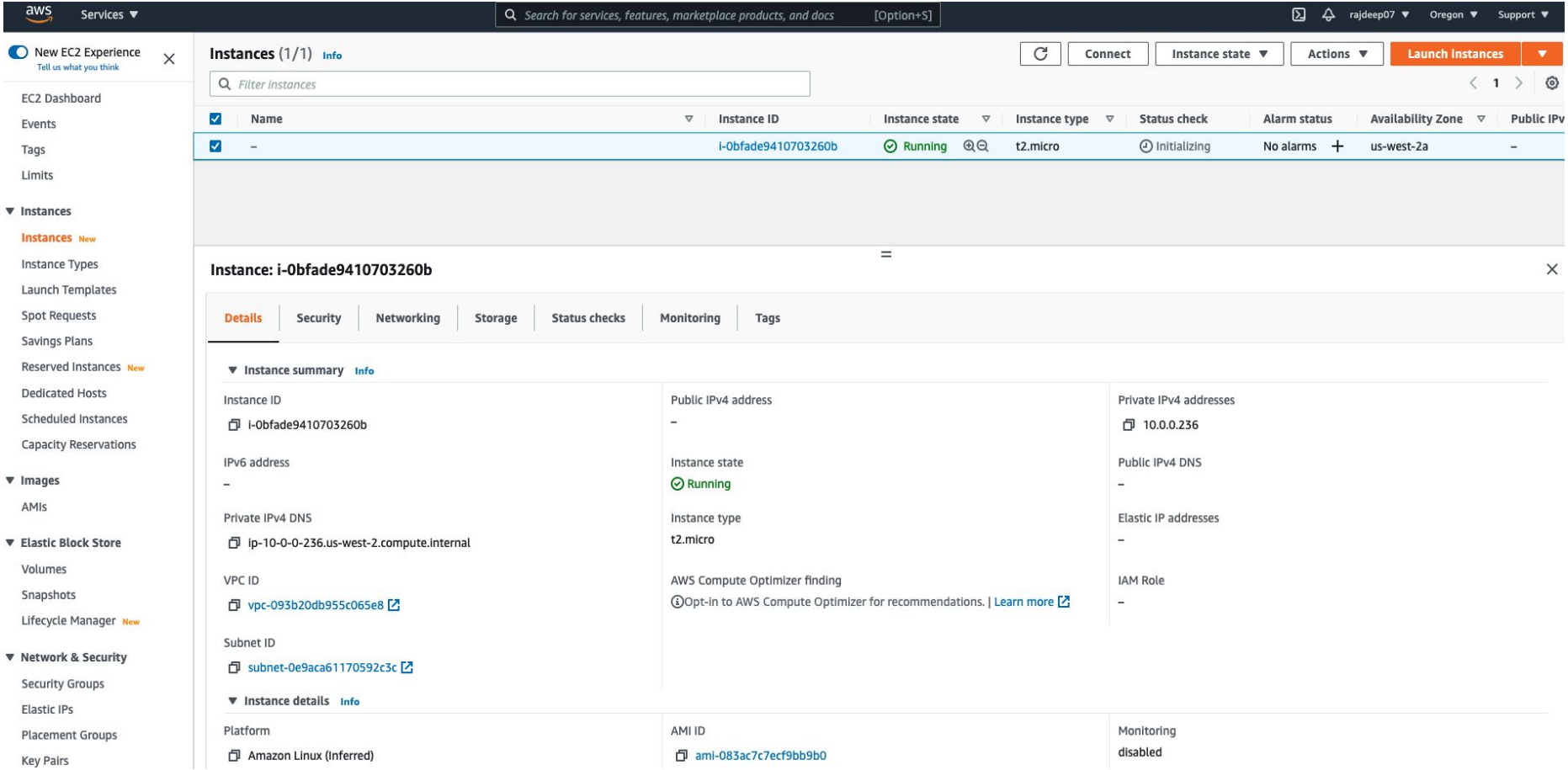
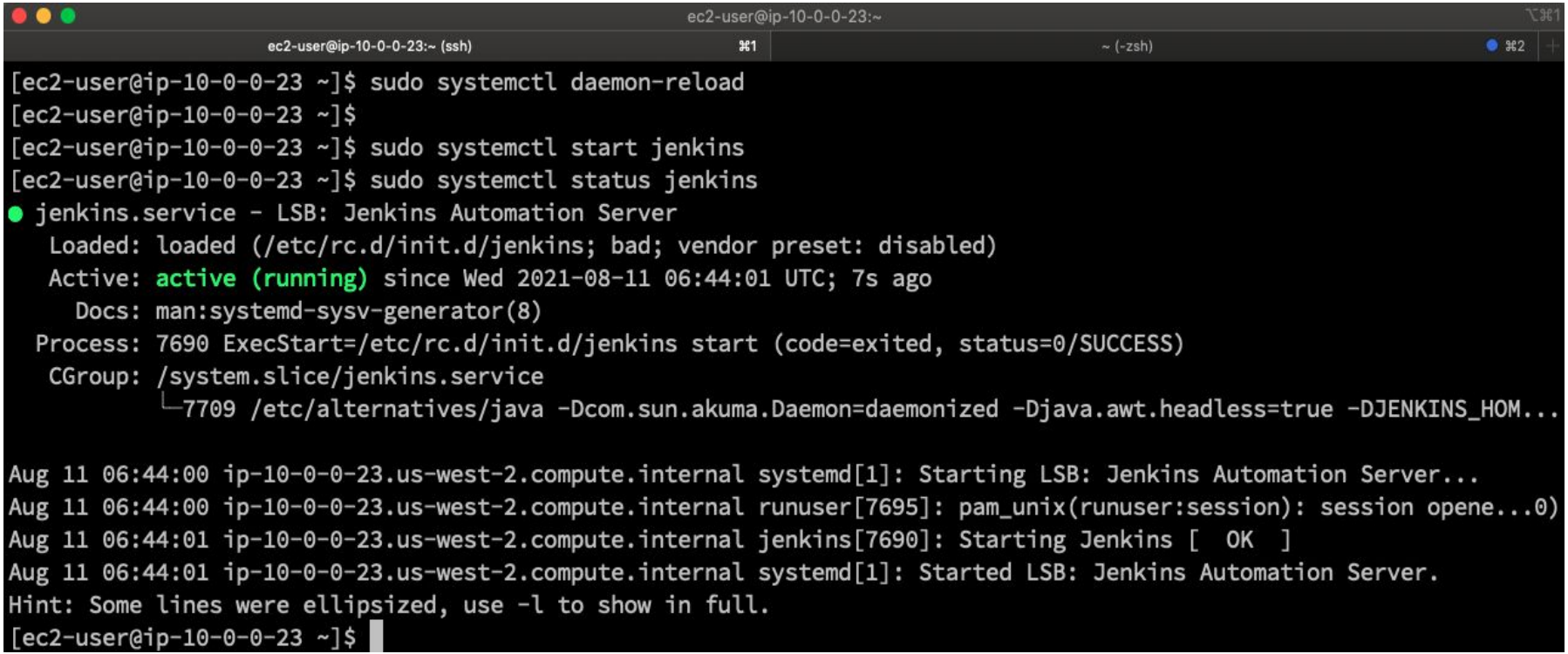
Capstone Project

Udacity Cloud DevOps

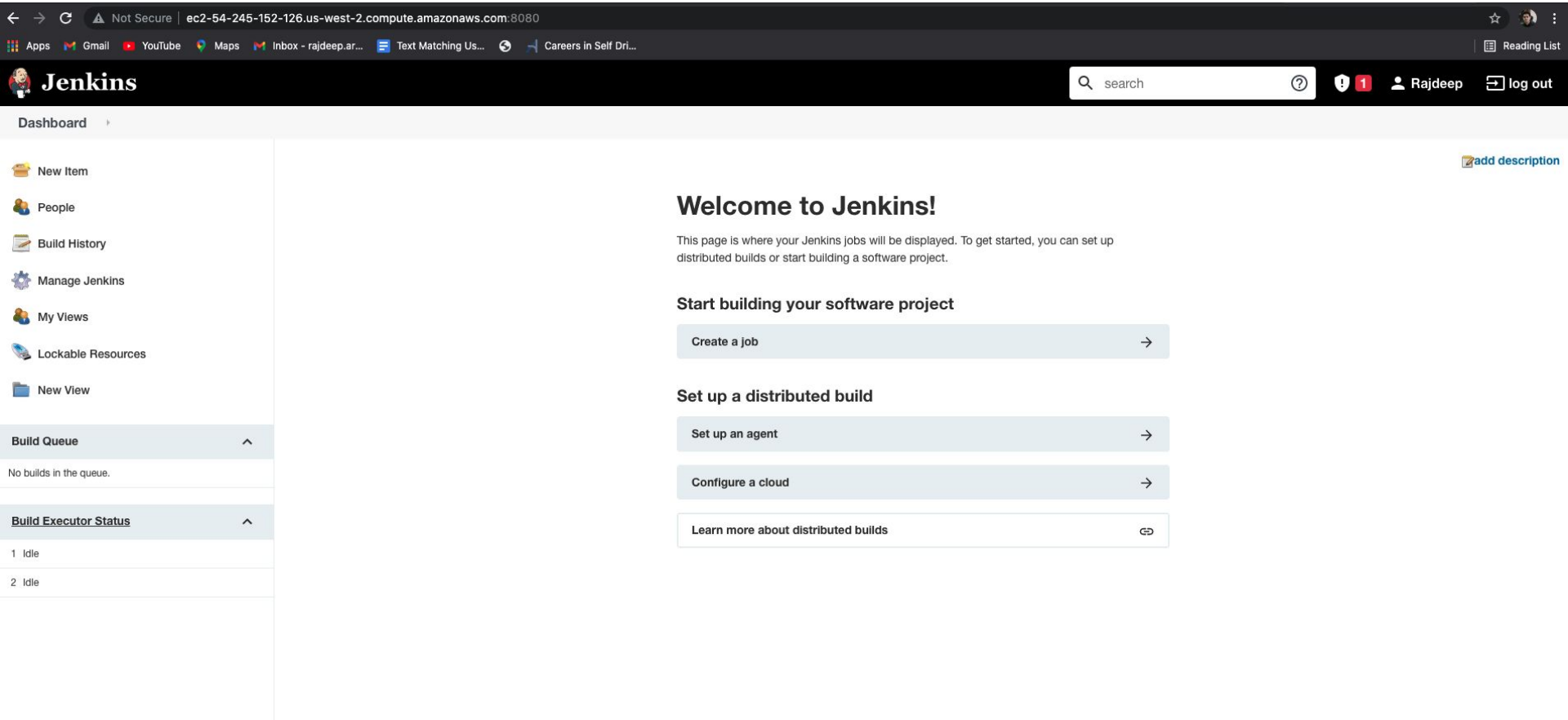
Launch EC2 Instance for Jenkins



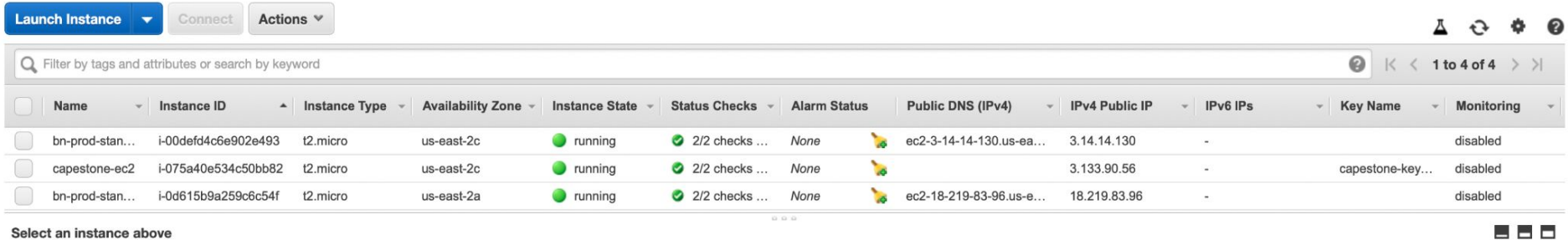
Install Jenkins



Dashboard for Jenkins

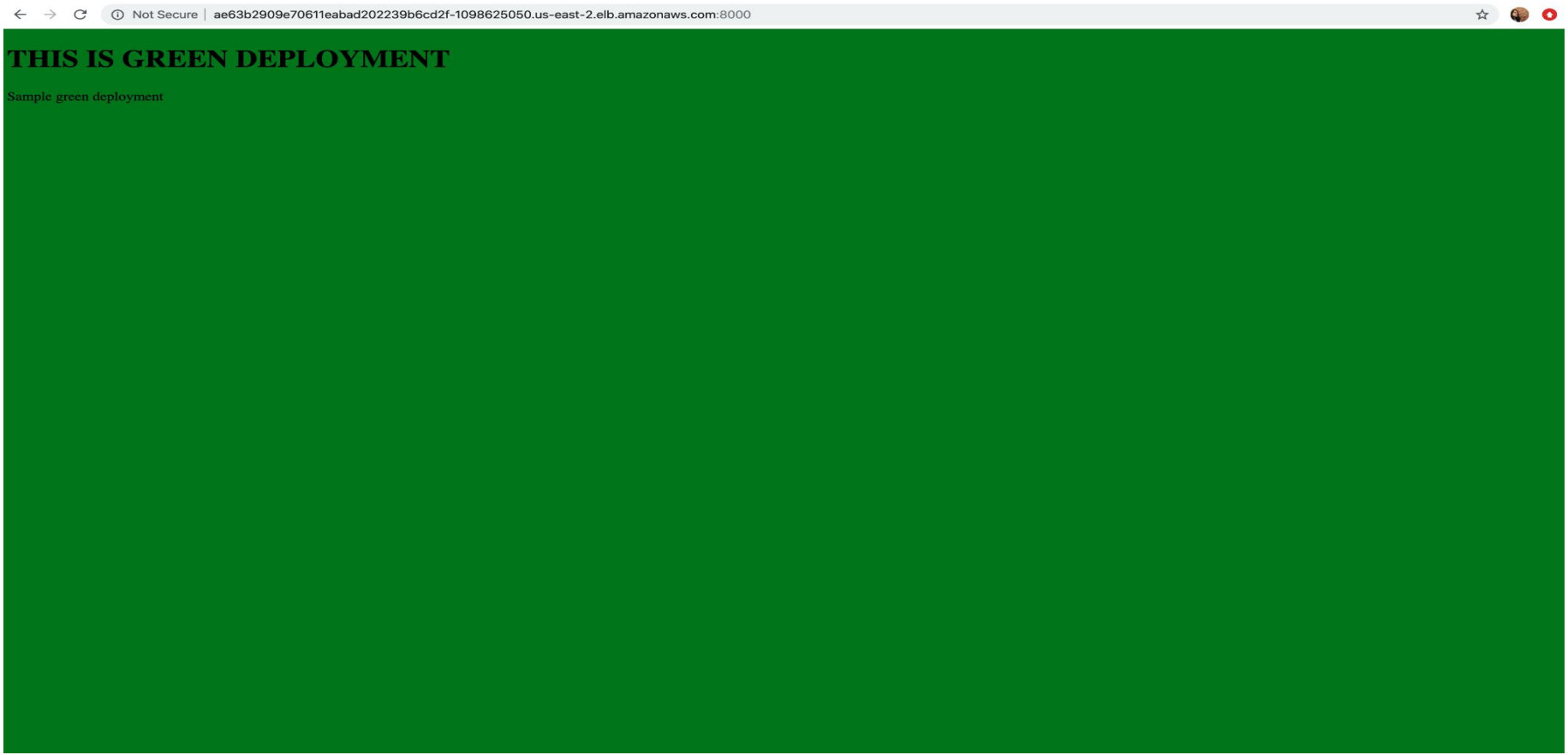


All EC2 Instances

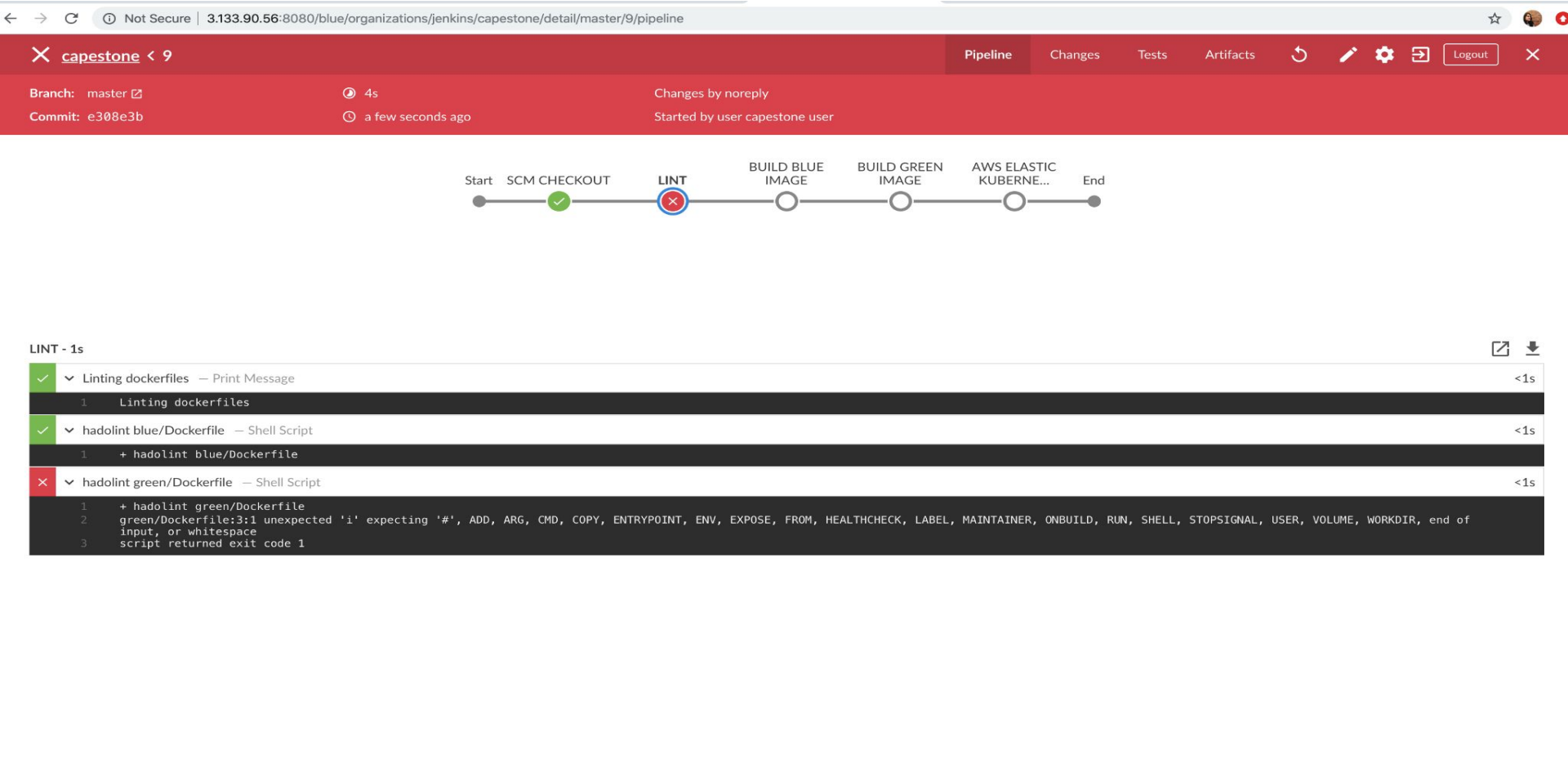


Blue Deployment

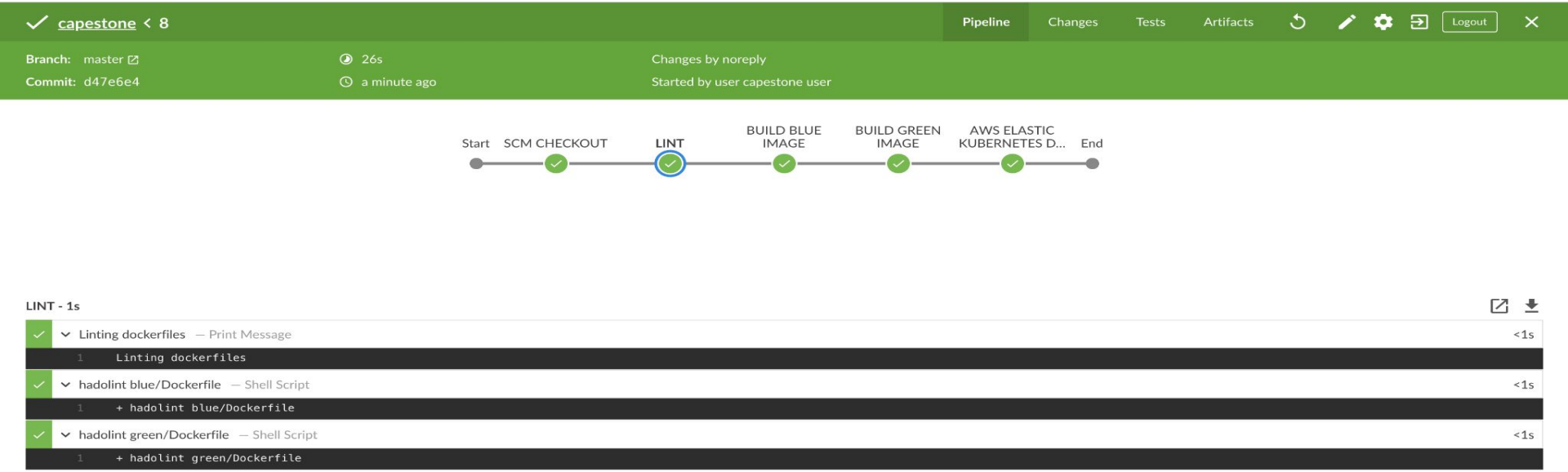
Green Deployment



Error (Lint)


Not Secure | 3.133.90.56:8080/blue/organizations/jenkins/capestone/detail/master/9/pipeline
capestone < 9
Pipeline
Changes
Tests
Artifacts
Logout
Branch: master
Commit: e308e3b
4s
a few seconds ago
Changes by noreply
Started by user capestone user
Start
SCM CHECKOUT
LINT
BUILD BLUE IMAGE
BUILD GREEN IMAGE
AWS ELASTIC KUBERNE...
End
LINT - 1s
Linting dockerfiles — Print Message
<1s
Linting dockerfiles
hadolint blue/Dockerfile — Shell Script
<1s
+ hadolint blue/Dockerfile
hadolint green/Dockerfile — Shell Script
<1s
+ hadolint green/Dockerfile
green/Dockerfile:3:1 unexpected 'i' expecting '#', ADD, ARG, CMD, COPY, ENTRYPOINT, ENV, EXPOSE, FROM, HEALTHCHECK, LABEL, MAINTAINER, ONBUILD, RUN, SHELL, STOPSIGNAL, USER, VOLUME, WORKDIR, end of input, or whitespace
script returned exit code 1

Error Resolve



Kubernetes Deployment

AWS ELASTIC KUBERNETES DEPLOYMENT - 9s

AWS EKS Deployment Step — Print Message <1s

```
AWS EKS Deployment Step
```

Shell Script 2s

```
+ aws eks --region us-east-2 update-kubeconfig --name bn-prod
Updated context arn:aws:eks:us-east-2:598991761346:cluster/bn-prod in /home/jenkins/.kube/config
```

kubectl apply -f blue/blue-controller.json — Shell Script 2s

```
+ kubectl apply -f blue/blue-controller.json
replicationcontroller/blue unchanged
```

kubectl apply -f green/green-replication-controller.json — Shell Script 1s

```
+ kubectl apply -f green/green-replication-controller.json
replicationcontroller/green unchanged
```

kubectl apply -f ./service.json — Shell Script 1s

```
+ kubectl apply -f ./service.json
service/bluegreenlb configured
```

kubectl get nodes — Shell Script <1s

```
+ kubectl get nodes
NAME                                         STATUS   ROLES    AGE   VERSION
ip-192-168-15-9.us-east-2.compute.internal   Ready    <none>   15m   v1.14.9-eks-658790
ip-192-168-38-171.us-east-2.compute.internal Ready    <none>   15m   v1.14.9-eks-658790
ip-192-168-81-57.us-east-2.compute.internal  Ready    <none>   15m   v1.14.9-eks-658790
```

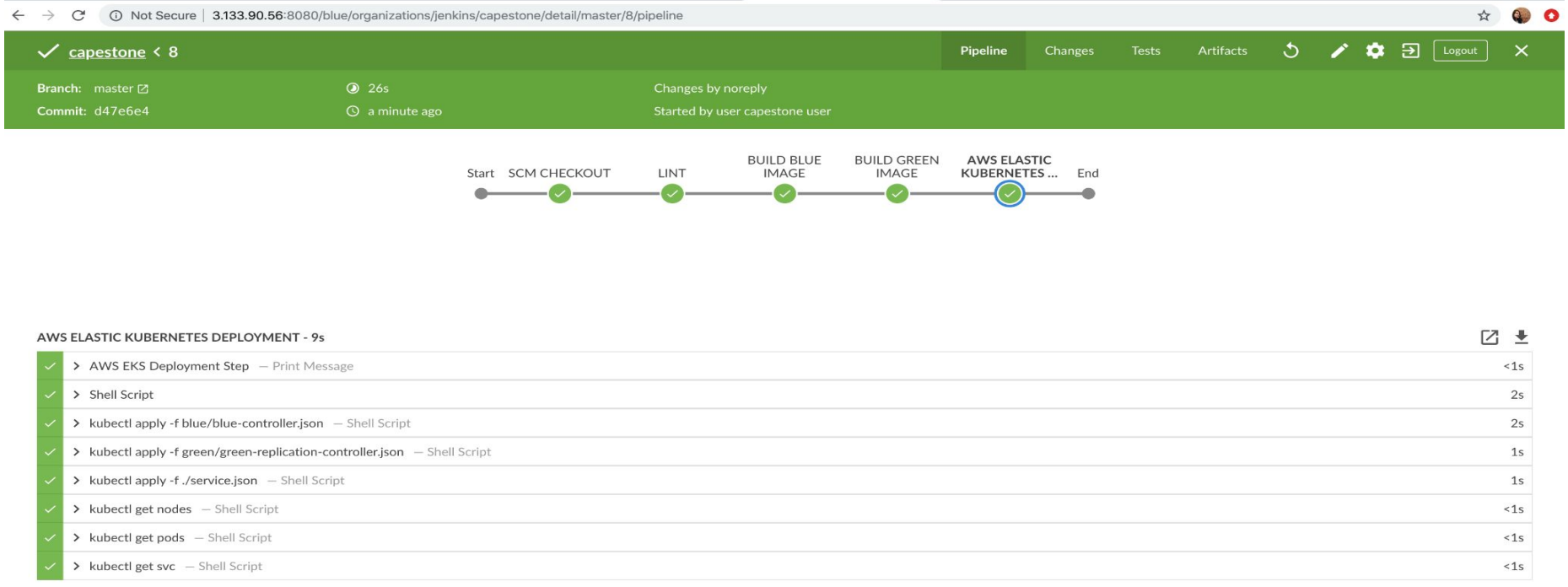
kubectl get pods — Shell Script <1s

```
+ kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
blue-729kt    1/1     Running   0          13m
green-gnlkb   1/1     Running   0          13m
```

kubectl get svc — Shell Script <1s

```
+ kubectl get svc
NAME          TYPE           CLUSTER-IP      EXTERNAL-IP                                                              PORT(S)          AGE
bluegreenlb   LoadBalancer   10.100.174.74   ae63b2909e70611eabad202239b6cd2f-1098625050.us-east-2.elb.amazonaws.com   8000:30543/TCP   13m
kubernetes    ClusterIP      10.100.0.1      <none>                                                                   443/TCP          22m
```

Pipeline


Not Secure | 3.133.90.56:8080/blue/organizations/jenkins/capestone/detail/master/8/pipeline
capestone < 8
Pipeline
Changes
Tests
Artifacts
Logout
Branch: master
Commit: d47e6e4
26s
a minute ago
Changes by noreply
Started by user capestone user
Start
SCM CHECKOUT
LINT
BUILD BLUE IMAGE
BUILD GREEN IMAGE
AWS ELASTIC KUBERNETES ...
End
AWS ELASTIC KUBERNETES DEPLOYMENT - 9s
AWS EKS Deployment Step — Print Message <1s
Shell Script 2s
kubectl apply -f blue/blue-controller.json — Shell Script 2s
kubectl apply -f green/green-replication-controller.json — Shell Script 1s
kubectl apply -f ./service.json — Shell Script 1s
kubectl get nodes — Shell Script <1s
kubectl get pods — Shell Script <1s
kubectl get svc — Shell Script <1s