




Capstone Project

Udacity Cloud DevOps

Launch EC2 Instance for Jenkins

 Services ▾

[Option+S]

  rajdeep07 ▾ Oregon ▾ Support ▾

New EC2 Experience
Tell us what you think

×

EC2 Dashboard

Events

Tags

Limits

▼ Instances

Instances New

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances New

Dedicated Hosts

Scheduled Instances

Capacity Reservations

▼ Images

AMIs

▼ Elastic Block Store

Volumes

Snapshots

Lifecycle Manager New

▼ Network & Security

Security Groups

Elastic IPs

Placement Groups

Key Pairs

Instances (1/1) [Info](#)


↻

Connect

Instance state ▾

Actions ▾

Launch Instances ▾

< 1 > 

<input checked="" type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IP
<input checked="" type="checkbox"/>	-	i-0bfade9410703260b	Running	t2.micro	Initializing	No alarms +	us-west-2a	-

Instance: i-0bfade9410703260b

×

Details

Security

Networking






Storage

Status checks



Monitoring

Tags

▼ Instance summary [Info](#)

Instance ID  i-0bfade9410703260b	Public IPv4 address -	Private IPv4 addresses  10.0.0.236
IPv6 address -	Instance state Running	Public IPv4 DNS -
Private IPv4 DNS  ip-10-0-0-236.us-west-2.compute.internal	Instance type t2.micro	Elastic IP addresses -
VPC ID  vpc-093b20db955c065e8 ↗	AWS Compute Optimizer finding Opt-In to AWS Compute Optimizer for recommendations. Learn more ↗	IAM Role -
Subnet ID  subnet-0e9aca61170592c3c ↗		

▼ Instance details [Info](#)

Platform  Amazon Linux (Inferred)	AMI ID  ami-083ac7c7ecf9bb9b0	Monitoring disabled
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Install Jenkins

```
ec2-user@ip-10-0-0-23:~  
ec2-user@ip-10-0-0-23:~ (ssh) %1 ~ (-zsh) %2 +  
[ec2-user@ip-10-0-0-23 ~]$ sudo systemctl daemon-reload  
[ec2-user@ip-10-0-0-23 ~]$  
[ec2-user@ip-10-0-0-23 ~]$ sudo systemctl start jenkins  
[ec2-user@ip-10-0-0-23 ~]$ sudo systemctl status jenkins  
● jenkins.service - LSB: Jenkins Automation Server  
   Loaded: loaded (/etc/rc.d/init.d/jenkins; bad; vendor preset: disabled)  
   Active: active (running) since Wed 2021-08-11 06:44:01 UTC; 7s ago  
     Docs: man:systemd-sysv-generator(8)  
  Process: 7690 ExecStart=/etc/rc.d/init.d/jenkins start (code=exited, status=0/SUCCESS)  
    CGroup: /system.slice/jenkins.service  
            └─7709 /etc/alternatives/java -Dcom.sun.akuma.Daemon=daemonized -Djava.awt.headless=true -DJENKINS_HOM...  
  
Aug 11 06:44:00 ip-10-0-0-23.us-west-2.compute.internal systemd[1]: Starting LSB: Jenkins Automation Server...  
Aug 11 06:44:00 ip-10-0-0-23.us-west-2.compute.internal runuser[7695]: pam_unix(runuser:session): session opened...  
Aug 11 06:44:01 ip-10-0-0-23.us-west-2.compute.internal jenkins[7690]: Starting Jenkins [ OK ]  
Aug 11 06:44:01 ip-10-0-0-23.us-west-2.compute.internal systemd[1]: Started LSB: Jenkins Automation Server.  
Hint: Some lines were ellipsized, use -l to show in full.  
[ec2-user@ip-10-0-0-23 ~]$
```


Dashboard for Jenkins

← → ↻ ⚠ Not Secure | ec2-54-245-152-126.us-west-2.compute.amazonaws.com:8080

☆ 👤 ⋮

Apps Gmail YouTube Maps Inbox - rajdeep.ar... Text Matching Us... Careers in Self Dri...

📖 Reading List


 **Jenkins**


?


🔔 1 👤 Rajdeep


🚪 log out


Dashboard


 New Item


 People

 Build History

 Manage Jenkins

 My Views

 Lockable Resources

 New View

Build Queue

^

No builds in the queue.

Build Executor Status

^

1 Idle

2 Idle

Welcome to Jenkins!

This page is where your Jenkins jobs will be displayed. To get started, you can set up distributed builds or start building a software project.

Start building your software project

Create a job →

Set up a distributed build

Set up an agent →

Configure a cloud →

Learn more about distributed builds ↗

[add description](#)

All EC2 Instances

Launch Instance

Connect

Actions



Filter by tags and attributes or search by keyword

1 to 4 of 4

	Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)	IPv4 Public IP	IPv6 IPs	Key Name	Monitoring
<input type="checkbox"/>	bn-prod-stan...	i-00defd4c6e902e493	t2.micro	us-east-2c	running	2/2 checks ...	None	ec2-3-14-14-130.us-ea...	3.14.14.130	-		disabled
<input type="checkbox"/>	capestone-ec2	i-075a40e534c50bb82	t2.micro	us-east-2c	running	2/2 checks ...	None		3.133.90.56	-	capestone-key...	disabled
<input type="checkbox"/>	bn-prod-stan...	i-0d615b9a259c6c54f	t2.micro	us-east-2a	running	2/2 checks ...	None	ec2-18-219-83-96.us-e...	18.219.83.96	-		disabled

Select an instance above



Blue Deployment



Green Deployment

← → ↻ ⓘ Not Secure | ae63b2909e70611eabad202239b6cd2f-1098625050.us-east-2.elb.amazonaws.com:8000



THIS IS GREEN DEPLOYMENT

Sample 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

1

Linting dockerfiles

✓

▼ hadolint blue/Dockerfile — Shell Script

<1s

1

+ hadolint blue/Dockerfile

✕

▼ hadolint green/Dockerfile — Shell Script

<1s

1

+ hadolint green/Dockerfile

2

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

3

script returned exit code 1

Error Resolve



LINT - 1s			🔗	📄
✓	▼	Linting dockerfiles — Print Message	<1s	
	1	Linting dockerfiles		
✓	▼	hadolint blue/Dockerfile — Shell Script	<1s	
	1	+ hadolint blue/Dockerfile		
✓	▼	hadolint green/Dockerfile — Shell Script	<1s	
	1	+ hadolint green/Dockerfile		

Kubernetes Deployment

← → ↺ Not Secure | 3.133.90.56:8080/blue/organizations/jenkins/capestone/detail/master/8/pipeline/47



AWS ELASTIC KUBERNETES DEPLOYMENT - 9s



✓	▼ AWS EKS Deployment Step — Print Message	<1s
1	AWS EKS Deployment Step	
✓	▼ Shell Script	2s
1	+ aws eks --region us-east-2 update-kubeconfig --name bn-prod	
2	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
1	+ kubectl apply -f blue/blue-controller.json	
2	replicationcontroller/blue unchanged	
✓	▼ kubectl apply -f green/green-replication-controller.json — Shell Script	1s
1	+ kubectl apply -f green/green-replication-controller.json	
2	replicationcontroller/green unchanged	
✓	▼ kubectl apply -f ./service.json — Shell Script	1s
1	+ kubectl apply -f ./service.json	
2	service/bluegreenlb configured	
✓	▼ kubectl get nodes — Shell Script	<1s
1	+ kubectl get nodes	
2	NAME	STATUS ROLES AGE VERSION
3	ip-192-168-15-9.us-east-2.compute.internal	Ready <none> 15m v1.14.9-eks-658790
4	ip-192-168-38-171.us-east-2.compute.internal	Ready <none> 15m v1.14.9-eks-658790
5	ip-192-168-81-57.us-east-2.compute.internal	Ready <none> 15m v1.14.9-eks-658790
✓	▼ kubectl get pods — Shell Script	<1s
1	+ kubectl get pods	
2	NAME READY STATUS RESTARTS AGE	
3	blue-729kt 1/1 Running 0 13m	
4	green-gnlkb 1/1 Running 0 13m	
✓	▼ kubectl get svc — Shell Script	<1s
1	+ kubectl get svc	
2	NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE	
3	bluegreenlb LoadBalancer 10.100.174.74 ae63b2909e70611eabad202239b6cd2f-1098625050.us-east-2.elb.amazonaws.com 8000:30543/TCP 13m	
4	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