

Project Name:

CI/CD Deployment for Spring Boot Application

This code is developed by:-Tata Sai Vineeth

This code for this project is hosted at:-

<https://github.com/Sai153793/CI-CD-Deployment-for-spring-boot-application.git>

Overview


Project Objective:

As a Full stack Developer, you have to build a CI/CD pipeline to demonstrate continuous deployment and host the application on AWS EC2 instance.

Goals

As the Project is in the final stage, management has asked you to automate the integration and deployment of the web application. You are required to set up an environment where the application will be hosted and accessed by users. The source code is supposed to be fetched from a GitHub repository.

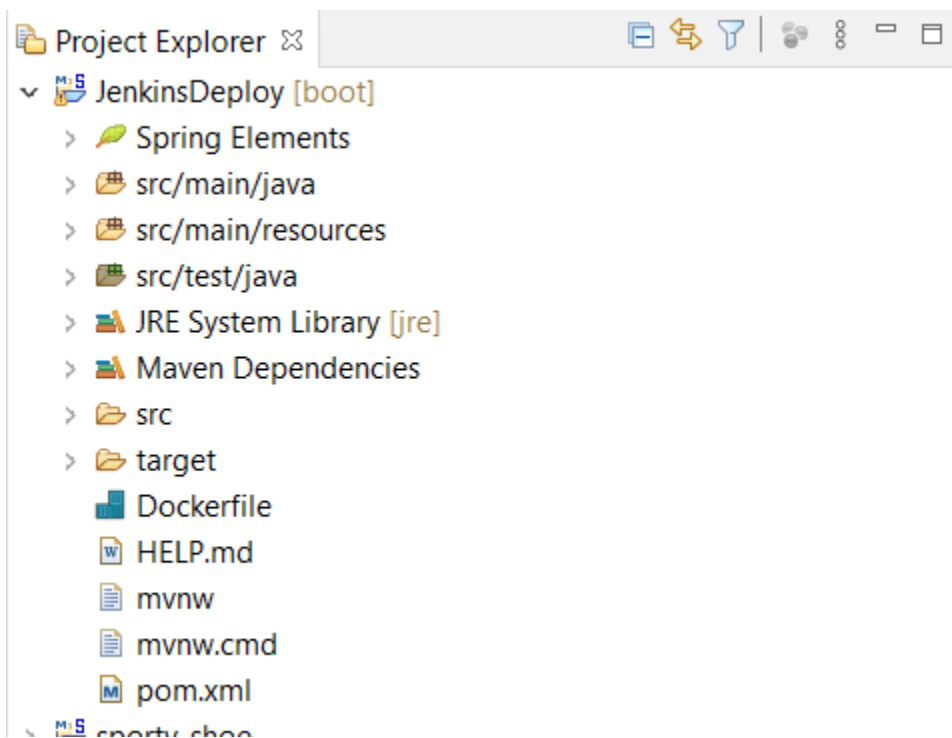
Tools used

- 
- Eclipse
 - GitHub
 - Jenkins
 - AWSEC2/Virtualmachine

Specifications

- Apart of the source code should be tracked on the GitHub repository. You need to document the tracked files that are ignored during the final push to the GitHub repository.
- The submission of your GitHub repository link is mandatory. In order to track your task, you need to share the link of the repository in the document.
- The step-by-step process involved in completing this task should be documented.

Project Explorer



Sourcecode


User

```
application.properties  *User.java × JenkinsDeployApplication.java  Springinitializer.java
1  package com.example.JenkinsDeploy;
2
3  import org.springframework.stereotype.Controller;
4
5
6
7  @Controller
8  public class User {
9
10     @ResponseBody
11     @RequestMapping("User")
12     public String init ()
13     {
14
15         return "This is Sai vineeth spring boot app";
16
17     }
18
19 }
20
21
```

DockerFile

```
User.java JenkinsDeployAppl... Springinitializer.ja... Dockerfile application.prop...
1 FROM openjdk:8
2 EXPOSE 8097
3 ADD target/JenkinsDeploy-0.0.1-SNAPSHOT.jar JenkinsDeploy-0.0.1-SNAPSHOT.jar
4 ENTRYPOINT ["java", "-jar", "/JenkinsDeploy-0.0.1-SNAPSHOT.jar"]
```

GitHubRepository

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main 1 branch 0 tags

Go to file Add file Code

Sai153793 first commit e2e21ca 3 minutes ago 1 commit

.mvn/wrapper	first commit	3 minutes ago
src/main	first commit	3 minutes ago
.gitignore	first commit	3 minutes ago
Dockerfile	first commit	3 minutes ago
mvnw	first commit	3 minutes ago
mvnw.cmd	first commit	3 minutes ago
pom.xml	first commit	3 minutes ago

About

No description, website, or topics provided.

0 stars

1 watching

0 forks

Releases

No releases published

[Create a new release](#)

Packages

The screenshot shows the AWS Management Console for the EC2 service in the US East (N. Virginia) region. The left sidebar contains navigation links for the EC2 Dashboard, Events, Tags, Limits, Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Scheduled Instances, Capacity Reservations, Images, AMIs, and Elastic Block Store. The main content area is titled 'Resources' and shows a summary of EC2 resources: 2 running instances, 0 dedicated hosts, 0 elastic IPs, 1 key pair, 0 placement groups, 0 snapshots, 2 volumes, 0 load balancers, 3 security groups, and 0 instances. A notification banner at the bottom of the Resources section states: 'Easily size, configure, and deploy Microsoft SQL Server Always On availability groups on AWS using the AWS Launch Wizard for SQL Server. Learn more'. Below the Resources section, there are two panels: 'Launch instance' with a 'Launch instance' button and a 'Migrate a server' link, and 'Service health' showing the AWS Health Dashboard with a status of 'This service is operating normally'. On the right side, there are two panels: 'Account attributes' showing supported platforms (VPC, Default VPC) and settings (EBS encryption, Zones, EC2 Serial Console, Default credit specification, Console experiments), and 'Explore AWS' with links to 'Save up to 90% on EC2 with Spot Instances' and 'Run Containerized Workloads For Less'.

The screenshot shows the 'Step 1: Choose an Amazon Machine Image (AMI)' wizard in the AWS Management Console. The top navigation bar indicates the current step is '1. Choose AMI', followed by '2. Choose Instance Type', '3. Configure Instance', '4. Add Storage', '5. Add Tags', '6. Configure Security Group', and '7. Review'. A notification banner at the top states: 'You've been invited to try an early, beta iteration of the new launch instance wizard. We will continue to improve the experience over the next few months. We're asking customers for their feedback on this early release. To exit the new launch instance wizard at any time, choose the Cancel button. Try it now!'. The main content area is titled 'Step 1: Choose an Amazon Machine Image (AMI)' and includes a search bar for AMIs. Below the search bar, there are two AMIs listed: 'Amazon Linux 2 AMI (HVM) - Kernel 5.10, SSD Volume Type' and 'Amazon Linux 2 AMI (HVM) - Kernel 4.14, SSD Volume Type'. Each AMI has a 'Select' button and a 'Free tier eligible' badge. The left sidebar contains links for 'My AMIs', 'AWS Marketplace', 'Community AMIs', and a 'Free tier only' filter. The right sidebar contains a 'Cancel and Exit' link.

https://console.aws.amazon.com/ec2/v2/home?region=us-east-1#LaunchInstanceWizard

aws Services Search for services, features, blogs, docs, and more [Alt+S] N. Virginia Corestack_Role/kothapallyrothi95_gmail @ 4329-5085-9222

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 2: Choose an Instance Type

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. [Learn more](#) about instance types and how they can meet your computing needs.

Filter by: All instance families Current generation Show/Hide Columns

Currently selected: t2.micro (- ECUs, 1 vCPUs, 2.5 GHz, -, 1 GiB memory, EBS only)

	Family	Type	vCPUs (1)	Memory (GiB)	Instance Storage (GB) (1)	EBS-Optimized Available (1)	Network Performance (1)	IPv6 Support (1)
	t2	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
	t2	t2.micro	1	1	EBS only	-	Low to Moderate	Yes
	t2	t2.small	1	2	EBS only	-	Low to Moderate	Yes
	t2	t2.medium	2	4	EBS only	-	Low to Moderate	Yes
	t2	t2.large	2	8	EBS only	-	Low to Moderate	Yes
	t2	t2.xlarge	4	16	EBS only	-	Moderate	Yes
	t2	t2.2xlarge	8	32	EBS only	-	Moderate	Yes
	t3	t3.nano	2	0.5	EBS only	Yes	Up to 5 Gigabit	Yes

Cancel Previous Review and Launch Next: Configure Instance Details

https://console.aws.amazon.com/ec2/v2/home?region=us-east-1#LaunchInstanceWizard

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Launch Status

✓ Your instances are now launching
The following instance launches have been initiated: i-0dde59e22bc5c3eae [View launch log](#)

! Get notified of estimated charges
Create billing alerts to get an email notification when estimated charges on your AWS bill exceed an amount you define (for example, if you exceed the free usage tier).

How to connect to your instances

Your instances are launching, and it may take a few minutes until they are in the **running** state, when they will be ready for you to use. Usage hours on your new instances will start immediately and continue to accrue until you stop or terminate your instances.

Click **View Instances** to monitor your instances' status. Once your instances are in the **running** state, you can **connect** to them from the Instances screen. [Find out](#) how to connect to your instances.

▼ Here are some helpful resources to get you started

- How to connect to your Linux instance
- Learn about AWS Free Usage Tier
- Amazon EC2: User Guide
- Amazon EC2: Discussion Forum

While your instances are launching you can also

- Create status check alarms to be notified when these instances fail status checks. (Additional charges may apply)
- Create and attach additional EBS volumes (Additional charges may apply)
- Manage security groups

[View Instances](#)

https://console.aws.amazon.com/ec2/v2/home?region=us-east-1#InstanceDetails:instanceId=i-Ofcd35739b4269083

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▼ Elastic Block Store

EC2 > Instances > i-Ofcd35739b4269083

Instance summary for i-Ofcd35739b4269083

Updated less than a minute ago

Instance ID: i-Ofcd35739b4269083

Public IPv4 address: 54.159.206.118 | open address

Private IPv4 addresses: 172.31.81.121

IPv6 address: -

Instance state: Pending

Public IPv4 DNS: ec2-54-159-206-118.compute-1.amazonaws.com | open address

Hostname type: IP name: ip-172-31-81-121.ec2.internal

Private IP DNS name (IPv4 only): ip-172-31-81-121.ec2.internal

Instance type: t2.micro

Elastic IP addresses: -

AWS Compute Optimizer finding: **⊗** User: arn:aws:sts::432950859222:assumed-role/Corestack_Role/kothapallyjyothi95_gmail is not authorized to perform: compute-optimizer:GetEnrollmentStatus on resource: * with an explicit deny in a service control policy [Retry](#)

IAM Role: -

Answer private resource DNS name: **IPv4 (A)**

VPC ID: vpc-04bd3690b978c140b

Subnet ID: subnet-0c649e67e000b6b40

Details Security Networking Storage Status checks Monitoring Tags

https://console.aws.amazon.com/ec2/v2/connect/ec2-user/i-Ofcd35739b4269083

Amazon Linux 2 AMI

```

https://aws.amazon.com/amazon-linux-2/
11 package(s) needed for security, out of 15 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-81-121 ~]$ sudo -i
[root@ip-172-31-81-121 ~]# yum install -y docker
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Resolving Dependencies
--> Running transaction check
--> Package docker.x86_64 0:20.10.7-5.amzn2 will be installed
--> Processing Dependency: runc >= 1.0.0 for package: docker-20.10.7-5.amzn2.x86_64
--> Processing Dependency: libcgrouper.x86_64 0:0.40.rc1-5.15 for package: docker-20.10.7-5.amzn2.x86_64
--> Processing Dependency: containerd >= 1.3.2 for package: docker-20.10.7-5.amzn2.x86_64
--> Processing Dependency: pigz for package: docker-20.10.7-5.amzn2.x86_64
--> Running transaction check
--> Package containerd.x86_64 0:1.4.6-7.amzn2 will be installed
--> Package libcgrouper.x86_64 0:0.40.rc1-5.15 for package: docker-20.10.7-5.amzn2.x86_64
--> Package pigz.x86_64 0:2.3.4-1.amzn2.0.1 will be installed
--> Package runc.x86_64 0:1.0.0-2.amzn2 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====
Package Arch Version Repository Size
=====
Installing:
docker x86_64 20.10.7-5.amzn2 amzn2extra-docker 42 M
Installing for dependencies:
containerd x86_64 1.4.6-7.amzn2 amzn2extra-docker 24 M
  
```

i-Ofcd35739b4269083

Public IPs: 54.159.206.118 Private IPs: 172.31.81.121


```

https://console.aws.amazon.com/ec2/v2/connect/ec2-user/i-0fcd35739b4269083

Installing:
docker                x86_64                20.10.7-5.amzn2                amzn2extra-docker                42 M
Installing for dependencies:
containerd            x86_64                1.4.6-7.amzn2                amzn2extra-docker                24 M
libcgroup            x86_64                0.41-21.amzn2                amzn2-core                      66 k
pigz                 x86_64                2.3.4-1.amzn2.0.1            amzn2-core                      81 k
runc                 x86_64                1.0.0-2.amzn2                amzn2extra-docker                3.3 M

Transaction Summary
=====
Install 1 Package (+4 Dependent packages)

Total download size: 69 M
Installed size: 285 M
Downloading packages:
(1/5): libcgroup-0.41-21.amzn2.x86_64.rpm | 66 kB 00:00:00
(2/5): pigz-2.3.4-1.amzn2.0.1.x86_64.rpm | 81 kB 00:00:00
(3/5): containerd-1.4.6-7.amzn2.x86_64.rpm | 24 MB 00:00:00
(4/5): docker-20.10.7-5.amzn2.x86_64.rpm | 42 MB 00:00:01
(5/5): runc-1.0.0-2.amzn2.x86_64.rpm | 3.3 MB 00:00:00
-----
Total | 64 MB/s | 69 MB 00:00:01
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
Installing : runc-1.0.0-2.amzn2.x86_64 1/5
Installing : containerd-1.4.6-7.amzn2.x86_64 2/5
Installing : libcgroup-0.41-21.amzn2.x86_64 3/5
Installing : pigz-2.3.4-1.amzn2.0.1.x86_64 4/5
Installing : docker-20.10.7-5.amzn2.x86_64 5/5
Verifying : containerd-1.4.6-7.amzn2.x86_64 1/5
Verifying : docker-20.10.7-5.amzn2.x86_64 2/5
Verifying : runc-1.0.0-2.amzn2.x86_64 3/5

i-0fcd35739b4269083
Public IPs: 54.159.206.118 Private IPs: 172.31.81.121

```

Output:

