Outputs of CI/CD Deployment for Spring boot Application.

Step 1: Write spring boot program:

```
🧓 workspace-spring-tool-suite-4-4.13.1.RELEASE - Spring-Boot-Web-App/src/main/java/com/phase5/springboot/controller/MainController.java - Spring Tool Suite 4
File Edit Source Refactor Navigate Search Project Run Window Help
🖺 Project Explorer × # Servers 📮 🗖 🖟 ProjectPhase... / application... 🖟 MainControll... × 🖟 SpringBootWe... 🖟 Spring-Boot-... / application... 🖟 default.css
                     □ ♣ ♥ 1 package com.phase5.springboot.controller;
> 🔛 demo (in UserPortal) [boot]
                                          3 * import org.springframework.stereotype.Controller; [...
> 👺 discovery-server [boot]
> 👺 foodbox [boot] [devtools]
                                        6 @Controller
> 📂 FoodBoxServer [boot]
                                          7 public class MainController {
> 🐸 hibernate-Demo [boot] [devtools]
> 👺 ICINBank [boot]
                                                 @RequestMapping("/")
> 🔛 jdbcDemo [boot] [devtools]
                                                 public String index() {
                                                    return "index.html";
> 📂 learner-api (in learners-api) [boot]
> | login (in Automate a Web Application)
> 🔛 mayen-pro
> 👺 movies-info [boot]
> wmovies-service [boot]
> MPhasis_Backup_Mvc_JDBC_04022022 (in N
> wy-spring-boot-web [boot]
> 🕌 > Registration_Form_Automation [Assisted]
> 👺 search_update_data_springMVC [boot] [dev
Servers
> 👺 SportyShoes [boot] [devtools]
> SportyShoesOnline (in SportyShoes) [boo
> Sporty-Shoes-Shops [boot] [devtools]
                                        🖳 Console 🔝 Problems 🤜 Progress 🗓 Debug Shell 🎤 Terminal 🗶 🔠 Git Repositories 🎂 Git Staging 🗦 Julinit
> SpringBootWebApp [boot]

∨ 

Spring-Boot-Web-App [boot]

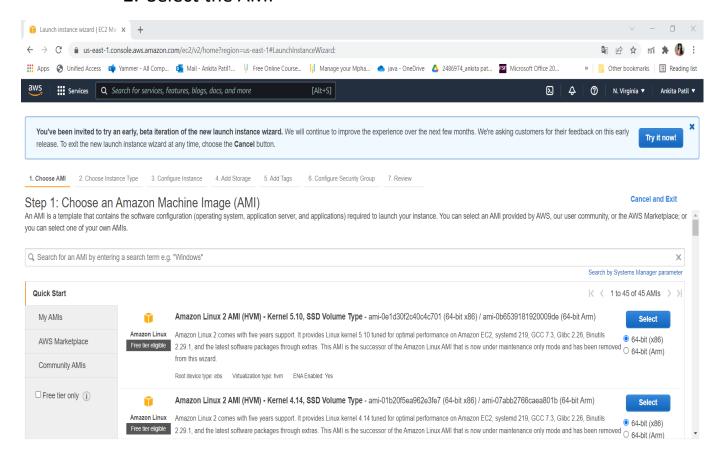
  > # com.phase5.springboot

→ # com.phase5.springboot.controller

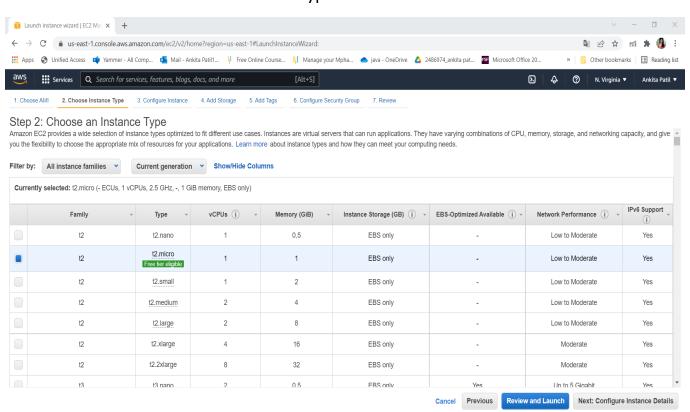
       > <a> MainController.java</a>
  > # src/main/resources
  > 🏿 src/test/java
  > A JRE System Library [JavaSE-11]
  > Maven Dependencies
  . # target/generated_courses/annotation
```

Step 2: Launching EC2 instance:

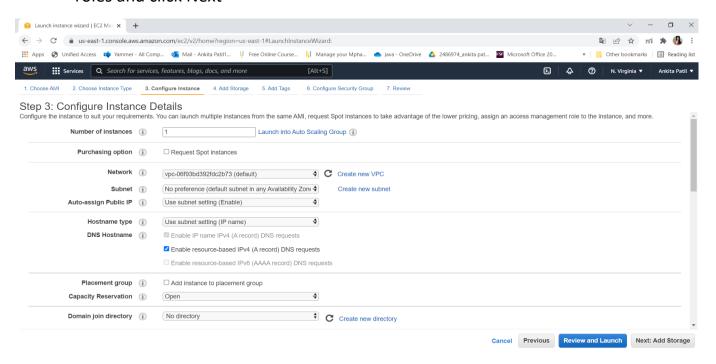
- 1. Click on launch instance to run any instance
- 2. Select the AMI



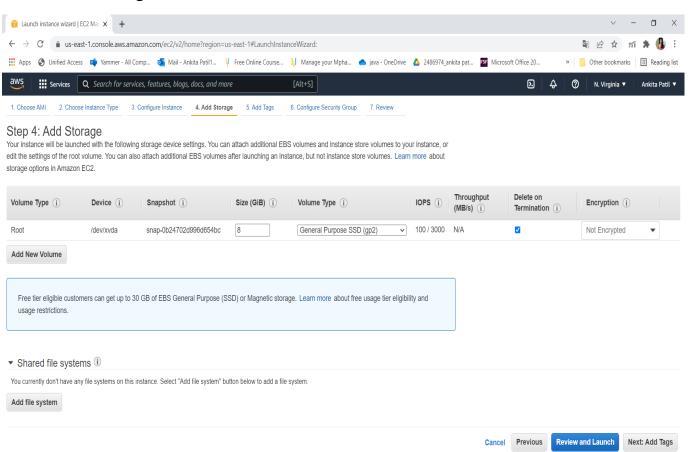
3. Select t2.micro as the instance type



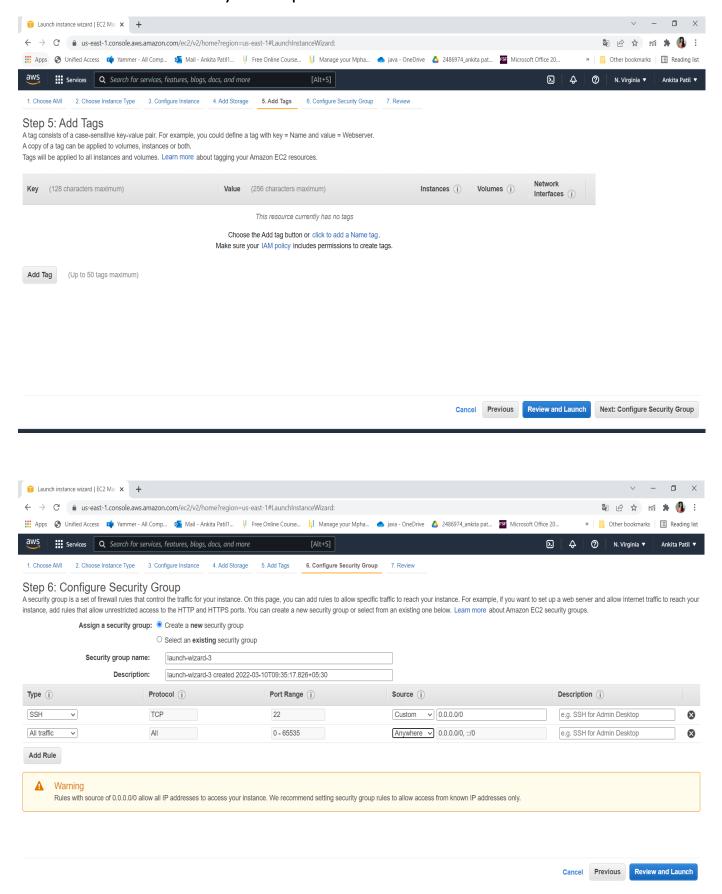
4. Specify the number of instances, networks, placement groups, and IAM roles and click Next



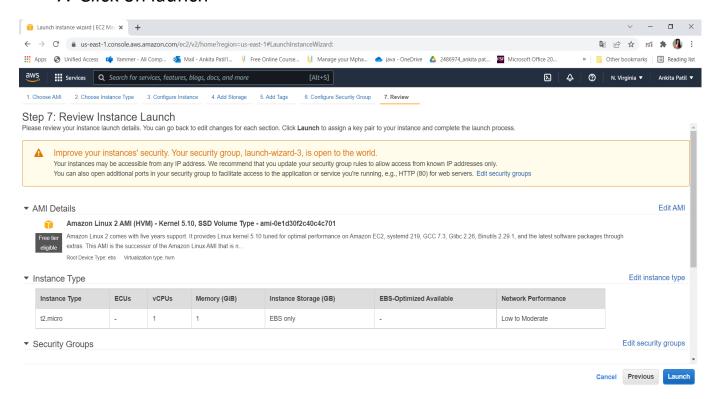
5. Add storage



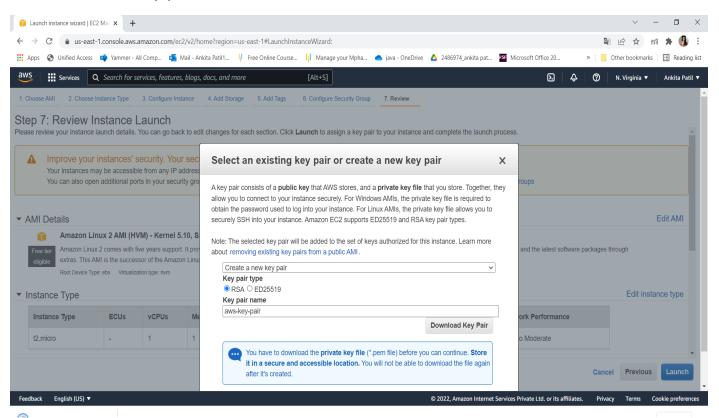
6. You can add a key-value pair to the instance



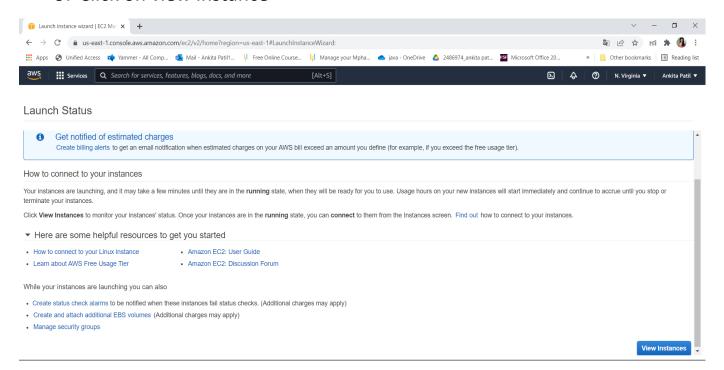
7. Click on launch



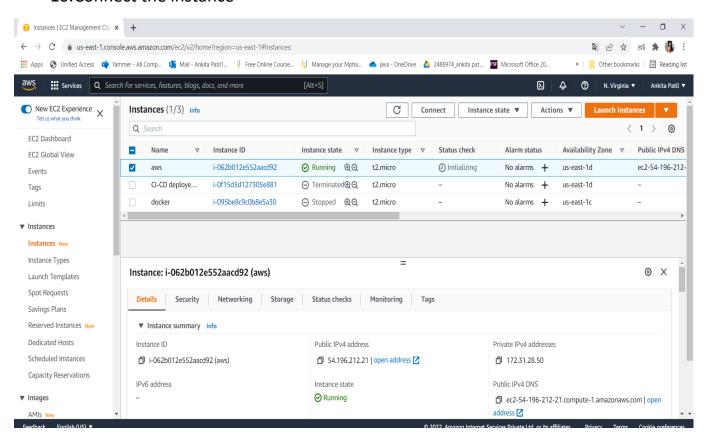
8. Create key pair



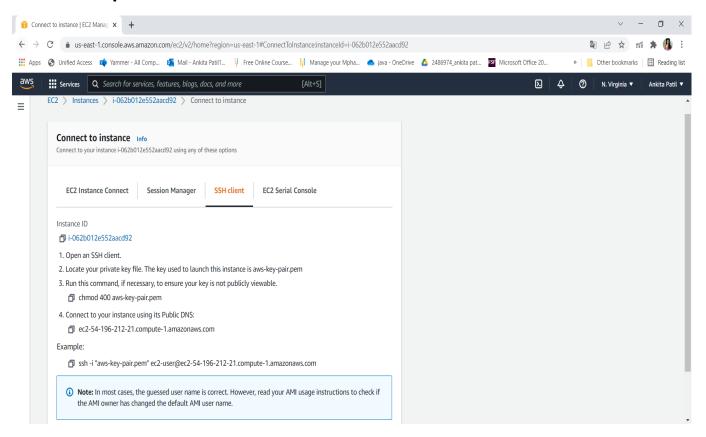
9. Click on view instance



10.Connect the instance



• Step 3: Connect to EC2 instances:



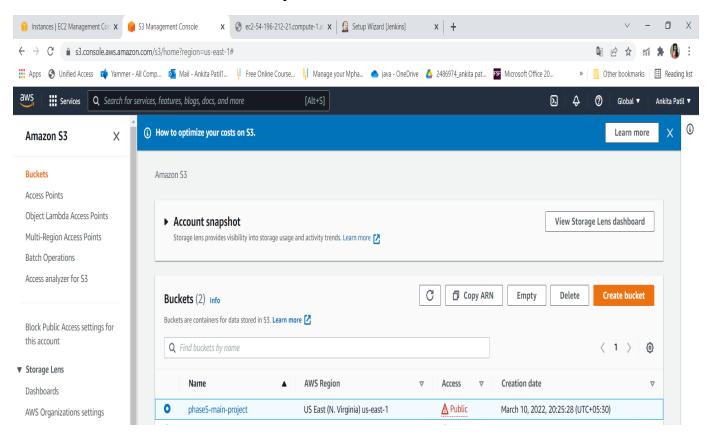
Click on Connect on EC2 dashboard & Run the ssh command provided

```
## Amazon Linux 2 AMI

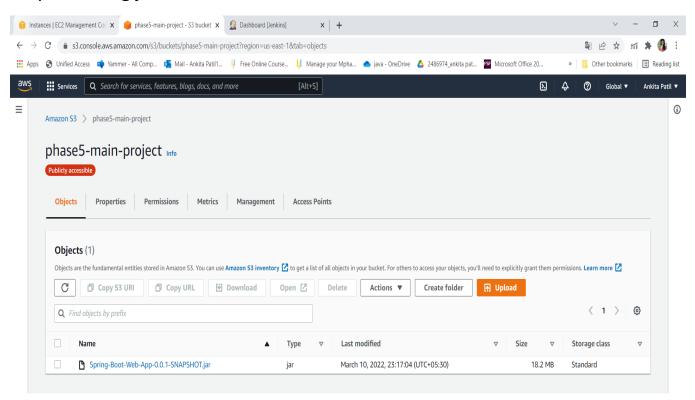
| Inttps://aws.amazon.com/amazon-linux-2/
No packages needed for security; 3 packages available Run "sub-quarter and page 1.72-31-28-50 ~]$ |
```

Step 4: Creating S3 Bucket:

1. Create Bucket to store jar file:



Step 5:Adding jar file:



Run program through instance:

```
ec2-user@ip-172-31-28-50 ~]$ ls
  ec2-user@ip-172-31-28-50 ~]$ java -jar spring-boot-web-aws-exe.jar
                                                                             main] c.p.s.SpringBootWebAppApplication
                                                                                                                                                      Starting SpringBootWebAppApplication v0.0.1-SNAPSHOT using Java 11.0.13 on ip-172-31-28
   ec2.internal with PID 21546 (/home/ec2-user/spring-boot-web-aws-exe.jar started by ec2-user in /home/ec2-user).
                                                                                                                                                       ome/ecz user)
No active profile set, falling back to 1 default profile: "default"
BeanFactory id=11810f64-bfcc-3aca-9e4a-416b42080aad
Tomcat initialized with port(s): 8080 (http)
                                                                            main] o.s.cloud.context.scope.GenericScope
main] o.s.b.w.embedded.tomcat.TomcatWebServer
                                                                                                                                                      Starting Service [Tomcat]
Starting Service [Tomcat]
Starting Service engine: [Apache Tomcat/9.0.58]
Initializing Spring embedded WebApplicationContext
Root WebApplicationContext: initialization completed in 3344 ms
                                                                             main] org.apache.catalina.core.StandardEngine
main] o.a.c.c.C.[Tomcat].[localhost].[/]
                                                                                                                                                      Cannot find template location: classpath:/templates/ (please add some templates or chec
                                                                             main] ion$DefaultTemplateResolverConfiguration
  your Thymeleaf configuration)
  022-03-10 17:21:47.624 WARN 21546 --- [ main] ConfigServletWebServerApplicationContext : Exception encountered during context initialization - cancelling refresh attempt: org. ingframework.context.ApplicationContextException: Failed to start bean 'webServerStartStop'; nested exception is org.springframework.boot.web.server.PortInUseException: Port 8080 is alre
                                                                             main] o.apache.catalina.core.StandardService
main] ConditionEvaluationReportLoggingListener
                                                                                                                                                       Stopping service [Tomcat]
  rror starting ApplicationContext. To display the conditions report re-run your application with 'debug' enabled.
022-03-10 17:21:47.717 ERROR 21546 --- [ main] o.s.b.d.LoggingFailureAnalysisReporter :
 PPLICATION FAILED TO START
Description:
 Web server failed to start. Port 8080 was already in use.
Identify and stop the process that's listening on port 8080 or configure this application to listen on another port.
```

• Output:

