PROJECT - DRIVE YOUR WAY

This Application Consist of:

- Home Page
- Login Page
- Register Page
- Subscription Plans and Pricing Page
- Car Categories Page
- Shortlisted Products Page
- Admin Page
- Adding filters in the search option

Core concepts used in project

- Selenium Library
- Eclipse IDE
- TestNG Library
- Maven

Project is completed using 4 sprint

Sprint 1:

Backend Part:

I.Create a spring boot starter project in eclipse

II. Write all java code for Drive Your Way project. Create bean class, controller class, repository class and service class and then edit application.java class.

III. Start the project on port 9090

Sprint 2:

Frontend Part:

I.Create an angular project using VSCode.

II. Create add-product, admin-product-retrieve, admindashboard, login, signup, userdashboard component using ng g c command.

III. Write code in components.

IV. Create login.ts and product.ts file.

V. Update app module.ts file.

VI. Create one karma.conf.js file.

VII. Run the project using ng serve command.

Sprint 3:

Testing Part:

- I.Convert the spring boot starter project into testing that will create a testing.xml file.
- II. Create one testng class to run all the test cases.
- III. Test all the scenario.
- IV. Check the result status in testng result part.
- V. Create testng report file.

Sprint 4:

DevOps

- I.Connect to ec2 instance.
- II. Check java and git install or not.
- III. Create separate repository and upload the spring boot project.
- IV. Open jenkins and create a new job using freestyle project.
- V. Update source code management and build environment and build the project
- VI. And finally push the code in github repository.

SOURCE CODE FOR DRIVE YOUR WAY

BACK-END APP:

```
package com;
import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;
import org.springframework.boot.autoconfigure.domain.EntityScan;
import
org.springframework.data.jpa.repository.config.EnableJpaRepositories;
@SpringBootApplication(scanBasePackages = "com")
@EntityScan(basePackages = "com.onlineshop.bean")
@EnableJpaRepositories(basePackages = "com.onlineshop.repository")
public class MyAppApplication {
public static void main(String[] args) {
SpringApplication.run(MyAppApplication.class, args);
System.out.println("Server running on port number 9090");
}
LOGIN.JAVA
package com.onlineshop.bean;
import javax.persistence.Column;
import javax.persistence.Entity;
import javax.persistence.Id;
@Entity
public class Login {
@Id
private String emailid;
private String password;
@Column(name = "typeofuser")
private String typeOfUser;
public String getEmailid() {
return emailid;
public void setEmailid(String emailid) {
this.emailid = emailid;
public String getPassword() {
return password;
public void setPassword(String password) {
this.password = password;
public String getTypeOfUser() {
return typeOfUser;
public void setTypeOfUser(String typeOfUser) {
this.typeOfUser = typeOfUser;
@Override
```

```
public String toString() {
return "Login [emailid=" + emailid + ", password=" + password + ",
typeOfUser=" + typeOfUser + "]";
}
PRODUCT.JAVA
package com.onlineshop.bean;
import javax.persistence.Entity;
import javax.persistence.GeneratedValue;
import javax.persistence.GenerationType;
import javax.persistence.Id;
@Entity
public class Product {
@Id
@GeneratedValue(strategy = GenerationType.IDENTITY)
                                                                // auto_generate
private int pid;
private String pname;
private float price;
private String url;
public int getPid() {
       return pid;
public void setPid(int pid) {
       this.pid = pid;
public String getPname() {
       return pname;
public void setPname(String pname) {
       this.pname = pname;
public float getPrice() {
       return price;
}
public void setPrice(float price) {
       this.price = price;
public String getUrl() {
       return url;
public void setUrl(String url) {
       this.url = url;
@Override
public String toString() {
```

```
return "Product [pid=" + pid + ", pname=" + pname + ", price=" + price + ",
url=" + url + "]";
}
LOGINCONTROLLER.JAVA
package com.onlineshop.controller;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.http.MediaType;
import org.springframework.web.bind.annotation.CrossOrigin;
import org.springframework.web.bind.annotation.PostMapping;
import org.springframework.web.bind.annotation.RequestBody;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RestController;
import com.onlineshop.bean.Login;
import com.onlineshop.service.LoginService;
@RestController
@RequestMapping("login")
@CrossOrigin
public class LoginController {
       @Autowired
      LoginService loginService;
       @PostMapping(value = "signIn",consumes =
MediaType.APPLICATION JSON VALUE)
      public String signIn(@RequestBody Login login) {
             System.out.println("I cam here");
             return loginService.signIn(login);
       }
       @PostMapping(value = "signUp",consumes =
MediaType.APPLICATION_JSON_VALUE)
      public String signUp(@RequestBody Login login) {
             System.out.println(login);
             return loginService.signUp(login);
       }
}
```

PRODUCTCONTROLLER.JAVA

```
package com.onlineshop.controller;
import java.util.List;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.http.MediaType;
import org.springframework.web.bind.annotation.CrossOrigin;
import org.springframework.web.bind.annotation.DeleteMapping;
import org.springframework.web.bind.annotation.GetMapping;
import org.springframework.web.bind.annotation.PatchMapping;
import org.springframework.web.bind.annotation.PathVariable;
import org.springframework.web.bind.annotation.PostMapping;
import org.springframework.web.bind.annotation.RequestBody;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RestController;
import com.onlineshop.bean.Product;
import com.onlineshop.service.ProductService;
@RestController
@RequestMapping("product")
@CrossOrigin
public class ProductController {
@Autowired
ProductService productService;
@PostMapping(value = "storeProduct", consumes =
MediaType.APPLICATION JSON VALUE)
public String storeProduct(@RequestBody Product product) {
return productService.storeProduct(product);
@PatchMapping(value = "updateProduct", consumes =
MediaType.APPLICATION JSON VALUE)
public String updateProduct(@RequestBody Product product) {
return productService.updateProduct(product);
@GetMapping(value="findAllProduct",produces =
MediaType.APPLICATION JSON VALUE)
public List<Product> getAllProduct() {
return productService.getAllProducts();
@GetMapping(value="findProductByPrice/{price}",produces =
MediaType.APPLICATION JSON VALUE)
public List<Product> findProductByPrice(@PathVariable("price") float
price) {
return productService.findProductByPrice(price);
@GetMapping(value="findAllProduct/{pid}")
public String findProductById(@PathVariable("pid") int pid) {
return productService.findProductById(pid);
@DeleteMapping(value="deleteProduct/{pid}")
public String deleteProductUsingId(@PathVariable("pid") int pid) {
return productService.deleteProduct(pid);
}
}
```

LOGINREPOSITORY.JAVA

```
package com.onlineshop.repository;
import org.springframework.data.jpa.repository.JpaRepository;
import org.springframework.stereotype.Repository;
import com.onlineshop.bean.Login;
@Repository
public interface LoginRepository extends JpaRepository Login,
String>{
}
PRODUCTREPOSITORY.JAVA
package com.onlineshop.repository;
import java.util.List;
import org.springframework.data.jpa.repository.JpaRepository;
import org.springframework.data.jpa.repository.Query;
import org.springframework.data.repository.query.Param;
import org.springframework.stereotype.Repository;
import com.onlineshop.bean.Product;
@Repository
public interface ProductRepository extends JpaRepository<Product,</pre>
Integer>{
//JPQL
@Ouery("select p from Product p where p.price > :price")
public List<Product> findProductByPrice(@Param("price") float price);
LOGINSERVICE.JAVA
package com.onlineshop.service;
import java.util.Optional;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Service;
import com.onlineshop.bean.Login;
import com.onlineshop.repository.LoginRepository;
@Service
public class LoginService {
@Autowired
LoginRepository loginRepository;
public String signIn(Login login) {
Optional<Login> result = loginRepository.findById(login.getEmailid());
```

```
if(result.isPresent()) {
Login ll = result.get();
if(ll.getPassword().equals(login.getPassword())) {
if(login.getTypeOfUser().equals(ll.getTypeOfUser()) &&
login.getTypeOfUser().equals("admin")) {
return "Admin sucessfully login";
}else if(login.getTypeOfUser().equals(ll.getTypeOfUser()) &&
login.getTypeOfUser().equals("user")){
return "User successfully login";
}else {
return "Invalid details";
}else {
return "InValid password";
}else {
return "InValid emailId";
public String signUp(Login login) {
Optional<Login> result = loginRepository.findById(login.getEmailid());
if(result.isPresent()) {
return "Email Id alreay exists";
if(login.getTypeOfUser().equals("admin")) {
return "You can't create admin account";
}else {
loginRepository.save(login);
return "Account created successfully";
}
}
}
PRODUCTSERVICE.JAVA
package com.onlineshop.service;
import java.util.List;
import java.util.Optional;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Service;
import com.onlineshop.bean.Product;
import com.onlineshop.repository.ProductRepository;
@Service
public class ProductService {
@Autowired
ProductRepository productRepository;
public String storeProduct(Product product) {
productRepository.save(product);
return "Product details stored";
public List<Product> getAllProducts() {
return productRepository.findAll();
```

```
public String findProductById(int pid) {
Optional<Product> result = productRepository.findById(pid);
if(result.isPresent()) {
Product p = result.get();
return p.toString();
}else {
return "Product not present";
public List<Product> findProductByPrice(float price) {
return productRepository.findProductByPrice(price);
public String deleteProduct(int pid) {
Optional<Product> result = productRepository.findById(pid);
if(result.isPresent()) {
Product p = result.get();
productRepository.delete(p);
return "Product deleted successfully";
}else {
return "Product not present";
public String updateProduct(Product product) {
Optional < Product > result =
productRepository.findById(product.getPid());
if(result.isPresent()) {
Product p = result.get();
p.setPrice(product.getPrice());
p.setUrl(product.getUrl());
productRepository.saveAndFlush(p);
return "Product updated successfully";
}else {
return "Product not present";
}
}
}
```

FRONTEND-APP:

APP.COMPONENET.HTML

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta http-equiv="X-UA-Compatible" content="IE=edge">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Document</title>
</head>
<body>
<div align="center" class="a">
<h1>Drive Your way</h1>
<!-- <h2> Admin Login</h2> -->
<!-- <h2> Admin Login</h2> -->
<!-- <hr/> -->
<router-outlet></router-outlet>
</div>
</body>
</html>
```

APP.COMPONENET.TS

```
import { Component } from '@angular/core';
@Component({
    selector: 'app-root',
    templateUrl: './app.component.html',
    styleUrls: ['./app.component.css']
})
    export class AppComponent {
    title = 'frontend-app';
}
```

APP.COMPONENET.CSS

```
body{
    background: rgb(238,174,202);
    background: radial-gradient(circle, rgba(238,174,202,1) 0%, rgba(148,187,233,1) 100%);
    height: 100vh;
    padding: 0px;
    margin: 0px;
    }
    .a{
        padding-top: 10px;
        color: crimson;
}
```

LOGIN.SERVICE.TS

```
import { HttpClient } from '@angular/common/http';
import { Injectable } from '@angular/core';
import { Observable } from 'rxjs';
@Injectable({
providedIn: 'root'
})
export class LoginService {
baseURL:string = "http://localhost:9090/login";
constructor(public http:HttpClient) {
    SignIn(login:any):Observable<string> {
    return this.http.post(this.baseURL+"/signIn",login,{responseType:"text"});
}
signUp(login:any):Observable<string> {
    return this.http.post(this.baseURL+"/signUp",login,{responseType:"text"});
}
}
```

LOGIN.TS

```
// map to entity class or json data.
export class Login {
  constructor(public emailid:string,
  public password:string,
  public typeOfUser:string){}
}
```

PRODUCT.SERVICE.TS

```
import { HttpClient } from '@angular/common/http';
import { Injectable } from '@angular/core';
import { Observable } from 'rxjs';
import { Product } from './product';
@Injectable({
providedIn: 'root'
})
export class ProductService {
baseUrl:string ="http://localhost:9090/product"
constructor(public http:HttpClient) { }
storeProduct(product:any):Observable<string> {
return this.http.post(this.baseUrl+"/storeProduct",product,{responseType:"text"});
```

```
pupdateProduct(product:any):Observable<string> {
    return this.http.patch(this.baseUrl+"/updateProduct",product,{responseType:"text"});
}
findAllProduct():Observable<Product[]> {
    return this.http.get<Product[]>(this.baseUrl+"/findAllProduct");
}
findAllProductByPrice(price:number):Observable<Product[]> {
    return this.http.get<Product[]>(this.baseUrl+"/findProductByPrice/"+price);
}
findAllProductById(pid:number):Observable<string> {
    return this.http.get(this.baseUrl+"/findAllProduct/"+pid,{responseType:"text"});
}
deleteProductById(pid:number):Observable<string> {
    return this.http.delete(this.baseUrl+"/deleteProduct/"+pid,{responseType:"text"});
}
}
```

LOGIN.COMPONENET.HTML

```
<html lang="en">
cmeta charset="UTF-8">
<meta http-equiv="X-UA-Compatible" content="IE=edge">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Document</title>
<div class="signIn">
<h2>Login Page</h2>
cform [formGroup]="loginRef" (ngSubmit)="signIn()">
div class="form-container-t3"
<label>EmailId</label>
<input type="email" formControlName="emailid" placeholder="enter email"/><br/>
<input type="password" formControlName="password" placeholder="enter password"/><br/>
<label>TypeOfUser</label>
<input type="radio" id="admin1" name="typeOfUser" value="admin"</pre>
formControlName="typeOfUser"/>admin
<input type="radio" id="user1" name="typeOfUser" value="user"</pre>
formControlName="typeOfUser"/>user<br/>
<input type="submit" id="signIn12" class="btn" value="signIn"/>
<input type="reset" class="btn" value="reset"/>
<span style="color:red">{{msg}}</span><br/>>
<a routerLink="/signUp">SignUp</a>
```

LOGIN.COMPONENT.TS

```
import { Component, OnInit } from '@angular/core';
import {FormGroup,FormControl} from '@angular/forms';
import { Router } from '@angular/router';
import { LoginService } from '../login.service';
@Component({
    selector: 'app-login',
    templateUrl: './login.component.html',
    styleUrls: ['./login.component.css']
})
    export class LoginComponent implements OnInit {
    loginRef = new FormGroup({
        emailid:new FormControl(),
```

```
password:new FormControl(),
typeOfUser:new FormControl()
});
constructor(public ls:LoginService,public router:Router) { }
ngOnInit(): void {
signIn(){
let login = this.loginRef.value;
console.log(login);
this.ls.signIn(login).subscribe({
next:(result:any)=>{
console.log(result);
if(result=="Admin sucessfully login"){
sessionStorage.setItem("userDetails",login.emailid);
this.router.navigate(["adminHome"])
}else if(result=="User successfully login"){
sessionStorage.setItem("userDetails",login.emailid);
this.router.navigate(["userHome"])
this.msg=result;
error:(error:any)=>console.log(error),
complete:()=>console.log("completed")
```

SIGNUP.COMPONENET.HTML

SIGNUP.COMPONENT.TS

```
import { Component, OnInit } from '@angular/core';
import {FormGroup,FormControl} from '@angular/forms';
import { LoginService } from '../login.service';
@Component({
    selector: 'app-signup',
    templateUrl: './signup.component.html',
    styleUrls: ['./signup.component.css']
})
    export class SignupComponent implements OnInit {
    loginRef = new FormGroup({
        emailid:new FormControl(),
        password:new FormControl(),
        typeOfUser:new FormControl()
});
msg:string=""
constructor(public ls:LoginService) { }
```

```
ngOnInit(): void {
}
signUp() {
let login = this.loginRef.value;
this.ls.signUp(login).subscribe({
    next:(result:any)=>this.msg=result,
    error:(error:any)=>console.log(error),
    complete:()=>console.log("completed")
})
}
}
```

ADMINDASHBOARD.COMPONENT.HTML

ADMINDASHBOARD.COMPONENT.TS

```
import { Component, OnInit } from '@angular/core';
import { Router } from '@angular/router';
@Component({
selector: 'app-admindashboard',
templateUrl: './admindashboard.component.html',
styleUrls: ['./admindashboard.component.css']
export class AdmindashboardComponent implements OnInit {
user:string ="";
constructor(private router:Router) { }
ngOnInit(): void {
let obj = sessionStorage.getItem("userDetails");
if(obj!=null){
this.user=obj;
logout() {
    sessionStorage.removeItem("userDetails");
    this.router.navigate(["login"]);
```

ADD-PRODUCT.COMPONENET.HTML

ADD-PRODUCT.COMPONENT.TS

```
import { Component, OnInit } from '@angular/core';
import {FormGroup,FormControl} from '@angular/forms'
import { ProductService } from '../product.service';
@Component({
selector: 'app-add-product',
templateUrl: './add-product.component.html',
styleUrls: ['./add-product.component.css']
export class AddProductComponent implements OnInit {
productRef = new FormGroup({
pname:new FormControl(),
price:new FormControl(),
url:new FormControl()
storeMsg :string =""
constructor(public ps:ProductService) { }
ngOnInit(): void {
storeProduct() {
    let product = this.productRef.value;
    this.ps.storeProduct(product).subscribe({
    next:(result:any)=>this.storeMsg=result,
    error:(error:any)=>console.log(error),
    complete:()=>console.log("completed")
    this.productRef.reset();
```

ADMIN-PRODUCT-RETRIEVE.COMPONENT.HTML

ADMIN-PRODUCT-RETRIEVE.COMPONENT.TS

```
import { Component, OnInit } from '@angular/core';
import { Product } from '../product';
import { ProductService } from '../product.service';
@Component({
selector: 'app-admin-product-retrieve',
templateUrl: './admin-product-retrieve.component.html',
styleUrls: ['./admin-product-retrieve.component.css']
})
export class AdminProductRetrieveComponent implements OnInit {
```

```
products:Array<Product>=[];
constructor(public ps:ProductService) { }
ngOnInit(): void {
this.findAllProduct();
flag:boolean = false;
pid:number =0;
price:number =0;
findAllProduct() {
this.ps.findAllProduct().subscribe({
next:(result:any)=>this.products=result,
error:(error:any)=>console.log(error),
complete:()=>console.log("completed")
deleteProduct(pid:number){
//console.log(pid)
this.ps.deleteProductById(pid).subscribe({
next:(result:any)=>console.log(result),
error:(error:any)=>console.log(error),
complete:()=>{
this.findAllProduct();
updateProduct(product:any){
this.flag= true;
this.pid=product.pid;
this.price=product.price;
this.url=product.url;
updateDataFromDb(){
let product = {pid:this.pid,price:this.price,url:this.url};
this.ps.updateProduct(product).subscribe({
next:(result:any)=>console.log(result),
error:(error:any)=>console.log(error),
complete:()=>{
this.findAllProduct();
this.flag=false;
```

SELENIUM WITH TESTNG

package com;

```
import org.testng.annotations.Test;
       import org.testng.annotations.AfterClass;
//
//
       import org.testng.annotations.Test;
//
       import org.testng.AssertJUnit;
//
       import org.testng.annotations.Test;
       import org.testng.asserts.SoftAssert;
//
       import java.util.concurrent.TimeUnit;
       import org.openqa.selenium.By;
//import org.openqa.selenium.By.ById;
//import org.openqa.selenium.By.ByXPath;
////import org.openqa.selenium.JavascriptExecutor;
       import org.openqa.selenium.NoSuchElementException;
       import org.openqa.selenium.WebDriver;
       import org.openqa.selenium.WebElement;
```

```
import org.openqa.selenium.chrome.ChromeDriver;
//
       import org.openqa.selenium.support.ui.FluentWait;
//
       import org.openga.selenium.support.ui.Wait;
       import org.testng.annotations.AfterClass;
//
//
       import org.testng.annotations.AfterMethod;
       public class driver_your_way_test {
              // Step 1: Initialize the webdriver
              WebDriver driver = null;
              SoftAssert soft = new SoftAssert();
               @Test
              public void initialization_T0() {
                     // Step 2: Declare a path and set property for google chrome
driver
                     String path =
"C:\\Users\\KIIT\\Downloads\\chromedriver win32\\chromedriver.exe";
                     System.setProperty("webdriver.chrome.driver", path);
                     driver = new ChromeDriver();
              }
               @Test(groups = "Chrome", dependsOnMethods =
{ "initialization_T0" })
              public void cross_T1() {
                     System.out.println("Testcases Starting...");
                     System.out.println();
                     // starting chrome
                     driver.get("http://localhost:4200/login");
                     try {
                             Thread.sleep(5000);
                      } catch (InterruptedException e) {
                             e.printStackTrace();
                      WebElement
email=driver.findElement(By.xpath("/html/body/app-root/html/body/div/app-
login/html/body/div/div/form/div/input[1]"));
                     email.sendKeys("admin@gmail.com");
                      WebElement
password=driver.findElement(By.xpath("/html/body/app-root/html/body/div/app-
login/html/body/div/div/form/div/input[2]"));
                      password.sendKeys("admin@123");
                      WebElement admin=driver.findElement(By.id("admin1"));
                      admin.click();
                     WebElement signIn=driver.findElement(By.id("signIn12"));
                      signIn.submit();
```

```
try {
                            Thread.sleep(5000);
                     } catch (InterruptedException e) {
                            e.printStackTrace();
                     }
              }
              @Test(groups = "Chrome", dependsOnMethods = {"cross_T1"})
              public void cross_T2() {
                     try {
                            Thread.sleep(5000);
                     } catch (InterruptedException e) {
                            e.printStackTrace();
                     // Clicking Search Button
                     WebElement
addproduct11=driver.findElement(By.xpath("//*[@id=\"add1\"]"));
                     addproduct11.click();
                     WebElement pname=driver.findElement(By.id("pname11"));
                     pname.sendKeys("I10");
                     try {
                            Thread.sleep(3000);
                     } catch (InterruptedException e) {
                            e.printStackTrace();
                     WebElement price=driver.findElement(By.id("price11"));
                     price.sendKeys("500000");
                     try {
                            Thread.sleep(3000);
                     } catch (InterruptedException e) {
                            e.printStackTrace();
                     WebElement url=driver.findElement(By.id("url11"));
       url.sendKeys("https://upload.wikimedia.org/wikipedia/commons/thumb/4/44/
Hyundai_i10_1.0_Intro_%28III%29_%E2%80%93_f_03012021.jpg/640px-
Hyundai_i10_1.0_Intro_%28III%29_%E2%80%93_f_03012021.jpg");
                     WebElement store=driver.findElement(By.id("submit11"));
                     try {
                            Thread.sleep(5000);
                     } catch (InterruptedException e) {
                            e.printStackTrace();
```

```
}
store.submit();
}
```

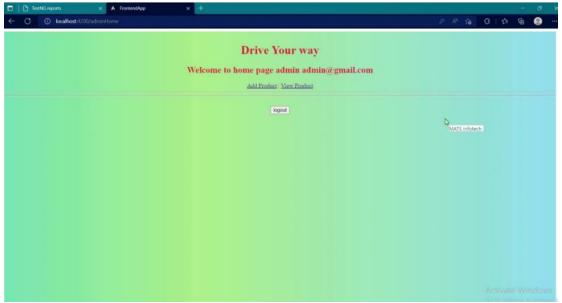
APPLICATION.PROPERTIES

spring.datasource.driver-class-name=com.mysql.cj.jdbc.Driver spring.datasource.url=jdbc:mysql://localhost:3306/capstone spring.datasource.username=root spring.datasource.password=soumyaranjan@261412 spring.jpa.hibernate.ddl-auto=update server.port=9090

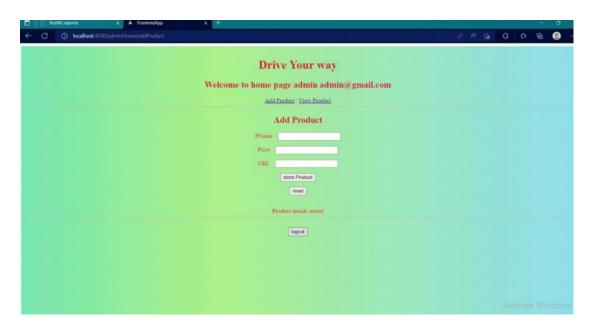
OUTPUT FOR DRIVE YOUR WAY

Creating an admin account

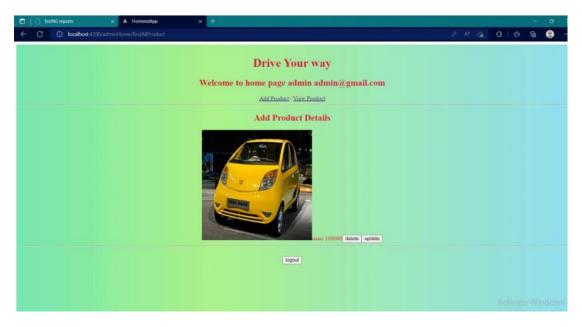




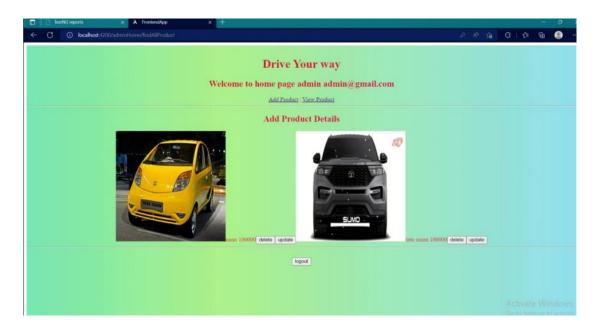
Add a Product



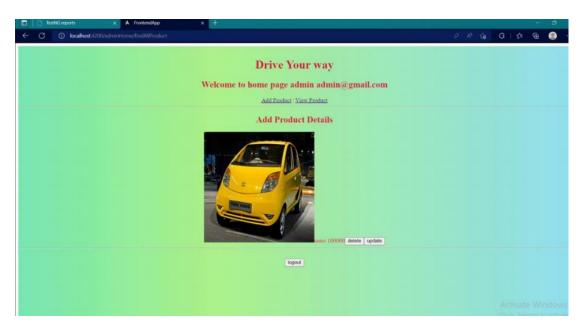








Delete/Update a Product







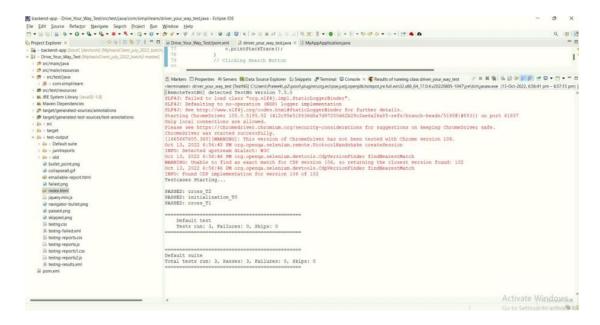
Creating a user account

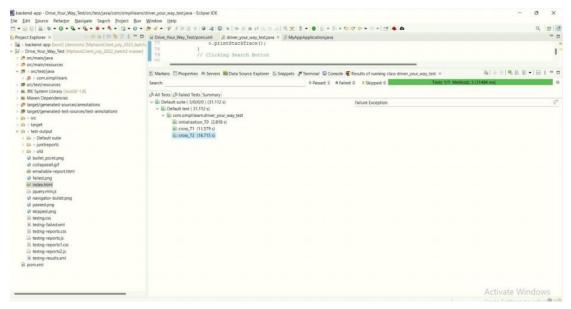


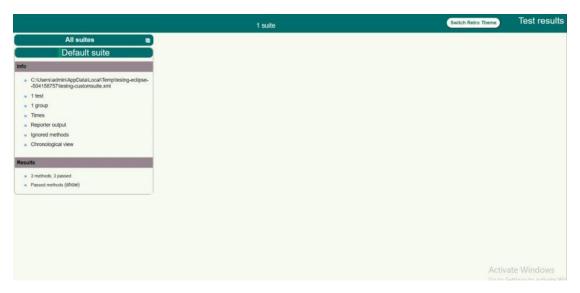


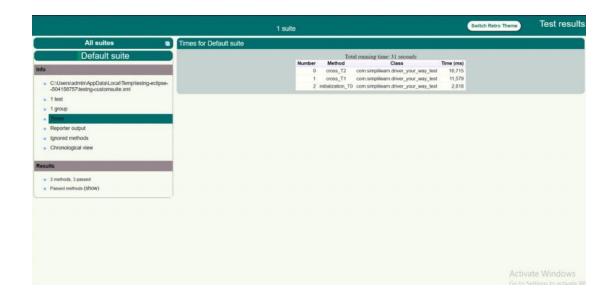


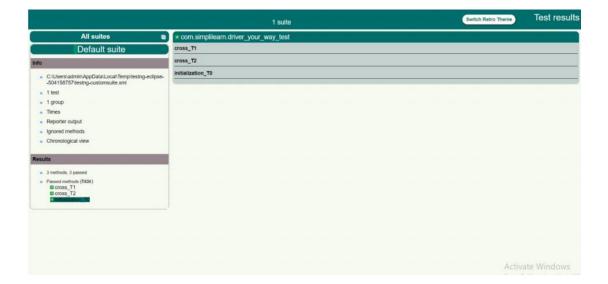
Testing



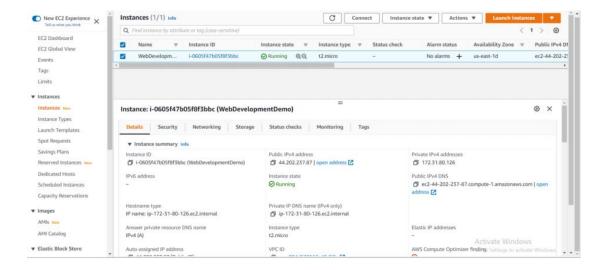




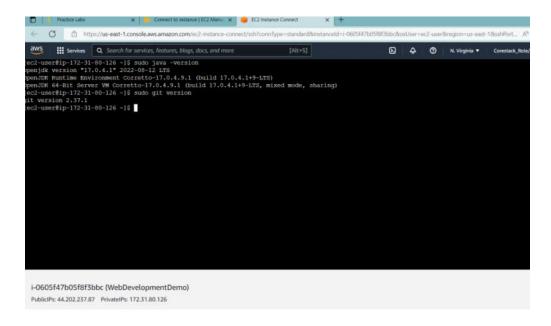




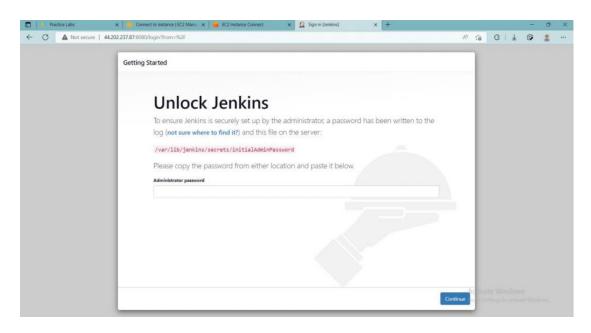
connect to ec2 instance

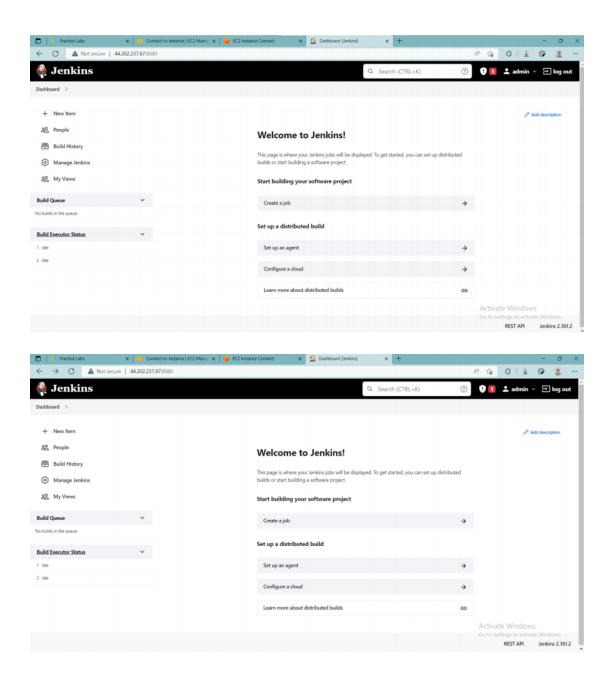


check java and git are installed or not.

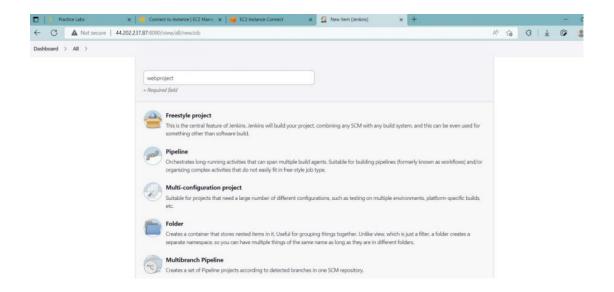


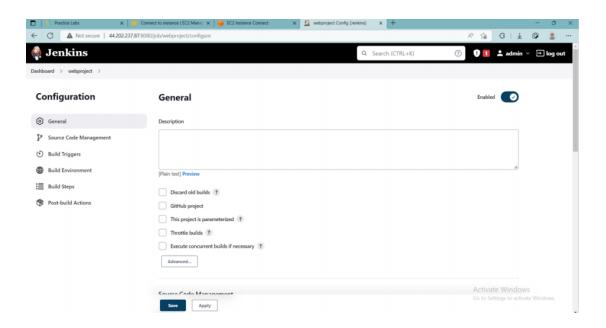
use Jenkkins Use public IP :8080 as shown for jenkkins Following page will open

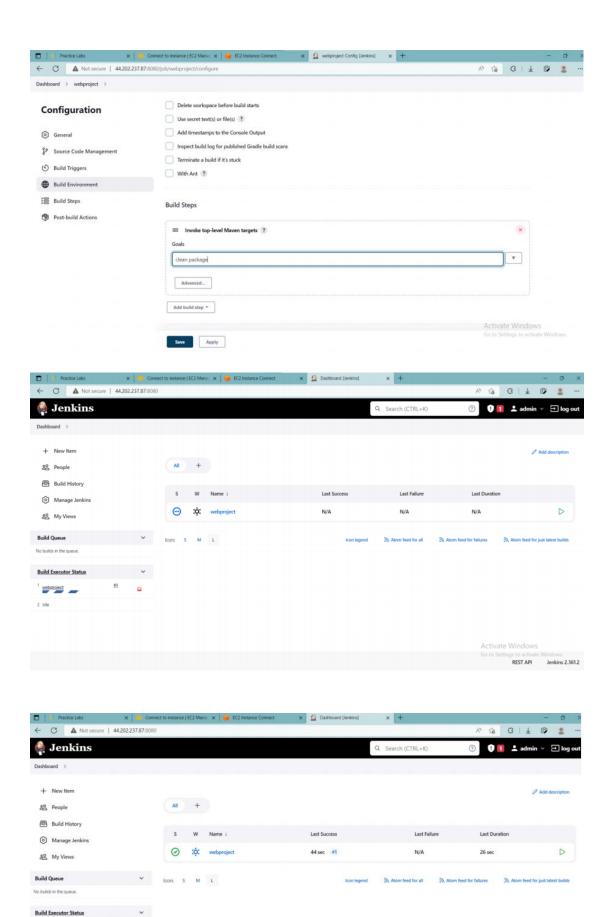




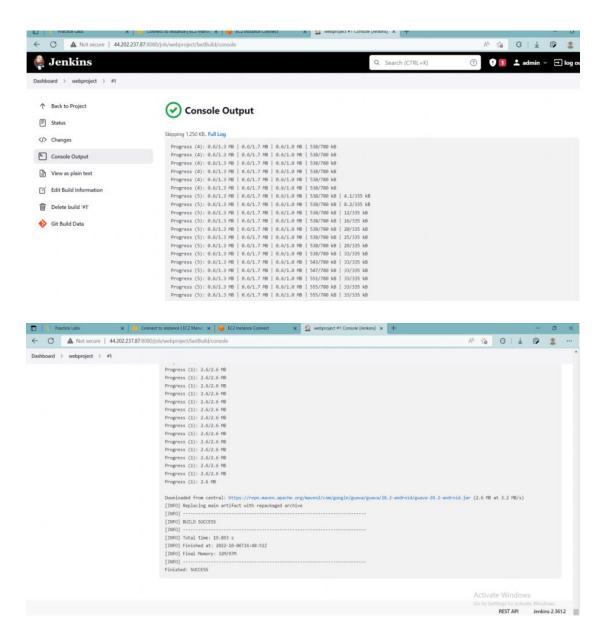
Build the project using Jenkins



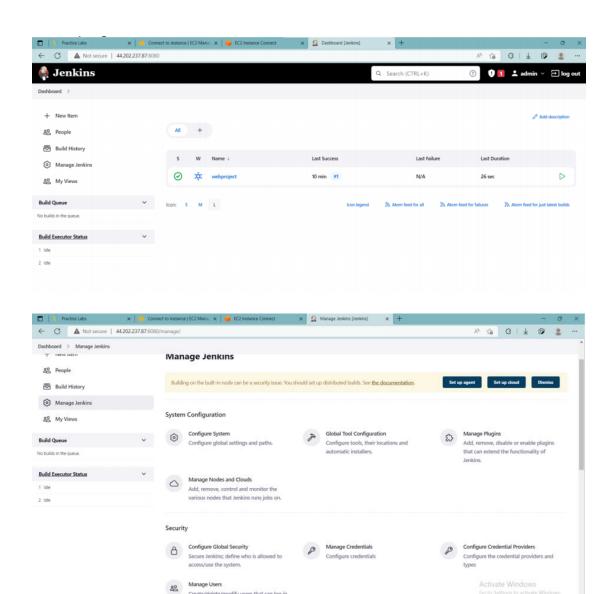




Console output

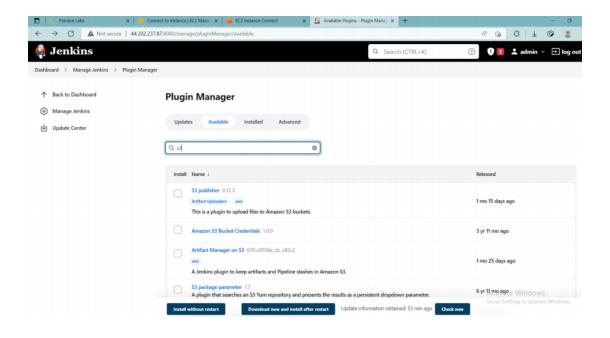


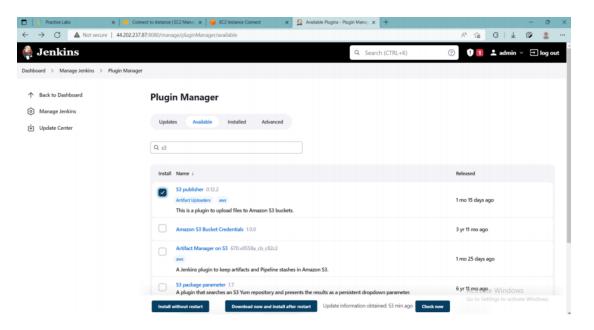
Now for s3 we have to configure it. Install plugins

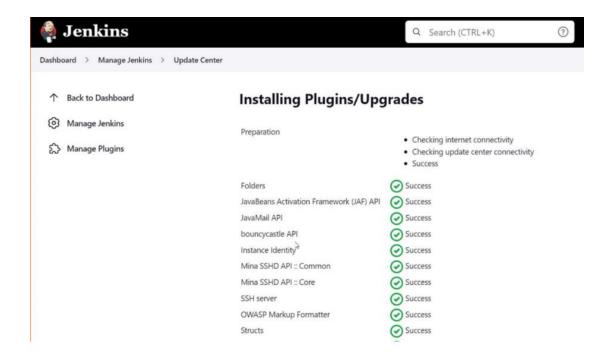


Create/delete/modify users that can log in

to this Jenkins.







Finally → Docker Container Docker file in angular

