```
<?xml version="1.0" encoding="UTF-8"?>
project xmlns="http://maven.apache.org/POM/4.0.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
https://maven.apache.org/xsd/maven-4.0.0.xsd">
       <modelVersion>4.0.0</modelVersion>
       <parent>
               <groupId>org.springframework.boot
               <artifactId>spring-boot-starter-parent</artifactId>
               <version>2.7.3</version>
               <relativePath /> <!-- lookup parent from repository -->
       </parent>
       <groupId>com.example
       <artifactId>S13SpringBootREST</artifactId>
       <version>0.0.1-SNAPSHOT</version>
       <name>S13SpringBootREST</name>
       <description>Demo project for Spring Boot</description>
       properties>
               <java.version>17</java.version>
       </properties>
       <dependencies>
               <dependency>
                       <groupId>org.springframework.boot
                       <artifactId>spring-boot-starter-data-jpa</artifactId>
               </dependency>
               <dependency>
                       <groupId>org.springframework.boot
                       <artifactId>spring-boot-starter-web</artifactId>
               </dependency>
               <dependency>
                       <groupId>org.springframework.boot
                       <artifactId>spring-boot-devtools</artifactId>
                       <scope>runtime</scope>
                       <optional>true</optional>
               </dependency>
               <dependency>
                       <groupId>mysql
                       <artifactId>mysql-connector-java</artifactId>
                       <scope>runtime</scope>
               </dependency>
               <dependency>
                       <groupId>org.springframework.boot
                       <artifactId>spring-boot-starter-test</artifactId>
                       <scope>test</scope>
               </dependency>
               <dependency>
                       <groupId>javax.servlet
                       <artifactId>jstl</artifactId>
                       <version>1.2</version>
               </dependency>
```

```
<dependency>
                       <groupId>taglibs
                       <artifactId>standard</artifactId>
                       <version>1.1.2
               </dependency>
               <dependency>
                       <groupId>org.apache.tomcat.embed
                       <artifactId>tomcat-embed-jasper</artifactId>
                       <version>9.0.44</version>
                       <scope>provided</scope>
               </dependency>
               <dependency>
                       <groupId>org.springframework.boot</groupId>
                       <artifactId>spring-boot-starter-tomcat</artifactId>
                       <version>2.4.4
                       <scope>provided</scope>
               </dependency>
       </dependencies>
       <build>
               <plugins>
                       <plugin>
                               <groupId>org.springframework.boot
                               <artifactId>spring-boot-maven-plugin</artifactId>
                       </plugin>
               </plugins>
       </build>
</project>
package com.project.sportyshoes;
import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;
@SpringBootApplication
public class SportyShoesApplication {
       public static void main(String[] args) {
               SpringApplication.run(SportyShoesApplication.class, args);
       }
}
package com.project.sportyshoes.controller;
import java.util.List;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpSession;
```

```
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Controller;
import org.springframework.ui.ModelMap;
import org.springframework.web.bind.annotation.ModelAttribute;
import org.springframework.web.bind.annotation.PathVariable;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RequestMethod;
import org.springframework.web.bind.annotation.RequestParam;
import org.springframework.web.bind.annotation.RestController;
import org.springframework.web.servlet.ModelAndView;
import com.project.sportyshoes.entity.Admin;
import com.project.sportyshoes.entity.Category;
import com.project.sportyshoes.entity.Product;
import com.project.sportyshoes.entity.Purchase;
import com.project.sportyshoes.entity.User;
import com.project.sportyshoes.exception.DataNotFoundException;
import com.project.sportyshoes.exception.DuplicateIdException;
import com.project.sportyshoes.service.AdminService;
import com.project.sportyshoes.service.CategoryService;
import com.project.sportyshoes.service.ProductService;
import com.project.sportyshoes.service.PurchaseService;
import com.project.sportyshoes.service.UserService;
@Controller
@RestController
@RequestMapping("admin")
public class AdminController {
        @Autowired
        AdminService adminService;
        @Autowired
        ProductService productService;
        @Autowired
        CategoryService categoryService;
        @Autowired
        UserService userService;
        @Autowired
        PurchaseService purchaseService;
        @RequestMapping(value = "create", method = RequestMethod.POST)
        public String create(@ModelAttribute Admin admin) {
                int res;
                try {
                        res = adminService.create(admin);
```

```
return res + " Added";
                } catch (DuplicateIdException e) {
                        return e.getMessage();
                }
        }
        @RequestMapping(value = "{email}", method = RequestMethod.GET)
        public Object find(@PathVariable String email) {
                Admin admin;
                try {
                        admin = adminService.find(email);
                        return admin;
                } catch (DataNotFoundException e) {
                        return e.getMessage();
                }
        }
        @RequestMapping(value = "/authenticate", method = RequestMethod.POST)
        public ModelAndView find(@RequestParam("email") String email,
@RequestParam("password") String password,
                        HttpServletRequest request, ModelMap model) {
                Admin admin;
                ModelAndView mv = new ModelAndView();
                try {
                        admin = (Admin) adminService.find(email, password);
                        HttpSession session = request.getSession();
                        session.setAttribute("email", admin.getEmail());
                        model.addAttribute("admin", admin);
                        mv.setViewName("redirect:/admin/dashboard");
                        return mv;
                } catch (DataNotFoundException e) {
                        mv.addObject("message", "Invalid details");
                        mv.setViewName("adminLogin");
                        return mv;
                }
        }
        @RequestMapping("dashboard")
        public ModelAndView adminDashboard(ModelMap model, HttpServletRequest
request) {
                ModelAndView mv = new ModelAndView();
                HttpSession session = request.getSession(false);
                String email = (String) session.getAttribute("email");
                if (session == null || email == null ||
!request.isRequestedSessionIdValid()) {
                        mv.addObject("message", "Session is over please login
again");
                        mv.setViewName("adminLogin");
                } else {
                        Admin admin;
```

```
try {
                                List<Product> products = productService.loadAll();
                                List<Category> categories =
categoryService.findAll();
                                List<User> users = userService.loadAll();
                                List<Purchase> purchases =
purchaseService.findAll();
                                admin = adminService.find(email);
                                mv.addObject("purchases", purchases);
                                mv.addObject("products", products);
                                mv.addObject("categories", categories);
                                mv.addObject("admin", admin);
                                mv.addObject("users", users);
                                mv.setViewName("adminDashboard");
                        } catch (DataNotFoundException e) {
                                e.printStackTrace();
                        }
                return mv;
        }
        @RequestMapping("changePassword")
        public ModelAndView changePassword(@RequestParam String oldPassword,
@RequestParam String newPassword,
                        HttpServletRequest request) {
                ModelAndView mv = new ModelAndView();
                HttpSession session = request.getSession(false);
                if (session == null || session.getAttribute("email") == null ||
!request.isRequestedSessionIdValid()) {
                        mv.addObject("message", "Session is over please login
again");
                        mv.setViewName("adminLogin");
                } else {
                        String email = (String) session.getAttribute("email");
                        try {
                                adminService.changePassword(email, oldPassword,
newPassword);
                                mv.setViewName("redirect:/admin/dashboard");
                        } catch (Exception e) {
                                mv.addObject("message", "Please enter correct
password");
                                mv.addObject("type", "danger");
                                mv.setViewName("forward:/admin/dashboard");
                        }
                }
                return mv;
        }
        @RequestMapping("filter/category")
```

```
public ModelAndView filterCategory(@RequestParam("category_name") String
category_name) {
                ModelAndView mv = new ModelAndView();
                List<Purchase> purchases =
purchaseService.findByCategory(category name);
                System.out.println(purchases);
                mv.setViewName("forward:/admin/dashboard");
                mv.addObject("filteredPurchases",purchases);
                return mv;
        }
        @RequestMapping("/logout")
        public ModelAndView logout(HttpServletRequest request) {
                ModelAndView mv = new ModelAndView();
                HttpSession session = request.getSession(false);
                session.invalidate();
                mv.addObject("message", "Logged out successfully");
                mv.addObject("type", "success");
                mv.setViewName("adminLogin");
                return mv;
        }
package com.project.sportyshoes.controller;
import java.util.List;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Controller;
import org.springframework.web.bind.annotation.ModelAttribute;
import org.springframework.web.bind.annotation.PathVariable;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RequestMethod;
import org.springframework.web.bind.annotation.RestController;
import org.springframework.web.servlet.ModelAndView;
import com.project.sportyshoes.entity.Category;
import com.project.sportyshoes.exception.DataNotFoundException;
import com.project.sportyshoes.exception.DuplicateIdException;
import com.project.sportyshoes.service.CategoryService;
@Controller
@RestController
@RequestMapping("category")
public class CatogoryController {
        @Autowired
        CategoryService categoryService;
        @RequestMapping(value = "create", method = RequestMethod.POST)
        public ModelAndView create(@ModelAttribute Category catogory) {
                ModelAndView mv = new ModelAndView();
```

```
try {
                        int res = categoryService.create(catogory);
                        mv.setViewName("redirect:/admin/dashboard");
                } catch (DuplicateIdException e) {
                        mv.setViewName("forward:/admin/dashboard");
                        mv.addObject("message", e.getMessage());
                return mv;
        }
        @RequestMapping(value = "/", method = RequestMethod.GET)
        public List<Category> loadAll() {
                List<Category> catogories = categoryService.findAll();
                return catogories;
        }
        @RequestMapping(value = "{name}", method = RequestMethod.GET)
        public Object findByName(@PathVariable String name) {
                Category catogory;
                try {
                        catogory = categoryService.find(name);
                        return catogory;
                } catch (DataNotFoundException e) {
                        return e.getMessage();
                }
        }
        @RequestMapping(value = "delete/{id}")
        public ModelAndView delete(@PathVariable int id) {
                ModelAndView mv = new ModelAndView();
                mv.setViewName("redirect:/admin/dashboard");
                try {
                        categoryService.delete(id);
                } catch (Exception e) {
                        mv.addObject("Message", "Error in deleteing");
                return mv;
        }
}
package com.project.sportyshoes.controller;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Controller;
import org.springframework.ui.ModelMap;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.servlet.ModelAndView;
import com.project.sportyshoes.service.AdminService;
```

```
@Controller
public class MainController {
        @Autowired
        AdminService adminService;
        @RequestMapping("/home")
        public ModelAndView home() {
                ModelAndView mv = new ModelAndView("index");
                return mv;
        }
        @RequestMapping("adminLogin")
        public String adminLogin() {
                return "adminLogin";
        }
}
package com.project.sportyshoes.controller;
import java.util.List;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Controller;
import org.springframework.web.bind.annotation.ModelAttribute;
import org.springframework.web.bind.annotation.PathVariable;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RequestMethod;
import org.springframework.web.bind.annotation.RequestParam;
import org.springframework.web.bind.annotation.RestController;
import org.springframework.web.servlet.ModelAndView;
import com.project.sportyshoes.entity.Category;
import com.project.sportyshoes.entity.Product;
import com.project.sportyshoes.exception.DataNotFoundException;
import com.project.sportyshoes.exception.DuplicateIdException;
import com.project.sportyshoes.service.CategoryService;
import com.project.sportyshoes.service.ProductService;
@Controller
@RestController
@RequestMapping("product")
public class ProductController {
        @Autowired
        ProductService productService;
        @Autowired
        CategoryService categoryService;
        @RequestMapping(value = "create", method = RequestMethod.POST)
```

```
public ModelAndView create(@ModelAttribute("product") Product product,
@RequestParam String category_name) {
                ModelAndView mv = new ModelAndView();
                mv.setViewName("redirect:/admin/dashboard");
                try {
                        try {
                                productService.create(product, category name);
                        } catch (DataNotFoundException e) {
                                e.getMessage();
                } catch (DuplicateIdException e) {
                        e.getMessage();
                return mv;
        }
        @RequestMapping(value = "/", method = RequestMethod.GET)
        public List<Product> findAll() {
                List<Product> products = productService.loadAll();
                return products;
        }
        @RequestMapping(value = "{name}", method = RequestMethod.GET)
        public List<Product> findByName(@PathVariable String name) {
                List<Product> products = productService.findProduct(name);
                return products;
        }
        @RequestMapping(value = "category/{category_name}", method =
RequestMethod.GET)
        public List<Product> findByCatogory(@PathVariable String category name) {
                List<Product> products = productService.findProduct(category_name,
true);
                return products;
        }
        @RequestMapping(value = "update", method = RequestMethod.POST)
        public ModelAndView update(@ModelAttribute("product") Product product) {
                ModelAndView mv = new ModelAndView();
                try {
                        productService.update(product);
                        mv.setViewName("redirect:/admin/dashboard");
                } catch (Exception e) {
                        e.getMessage();
                return mv;
        }
        @RequestMapping(value = "update/{id}", method = RequestMethod.GET)
```

```
public ModelAndView update(@PathVariable int id) {
                ModelAndView mv = new ModelAndView();
                Product product = productService.findProduct(id);
                mv.addObject("product", product);
                System.out.println(product);
                List<Category> categories = categoryService.findAll();
                mv.addObject("categories", categories);
                mv.setViewName("updateProduct");
                return mv;
        }
        @RequestMapping(value = "delete/{id}")
        public ModelAndView delete(@PathVariable int id) {
                ModelAndView mv = new ModelAndView();
                mv.setViewName("redirect:/admin/dashboard");
                try {
                        productService.delete(id);
                } catch (Exception e) {
                        mv.addObject("Message", "Error in deleteing");
                return mv;
        }
package com.project.sportyshoes.controller;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpSession;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.web.bind.annotation.PathVariable;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RestController;
import org.springframework.web.servlet.ModelAndView;
import com.project.sportyshoes.service.PurchaseService;
@RestController
@RequestMapping("/purchase")
public class PurchaseController {
        @Autowired
        PurchaseService purchaseService;
        @RequestMapping("buy/{productId}")
        public ModelAndView create(@PathVariable int productId, HttpServletRequest
request) {
                ModelAndView mv = new ModelAndView();
                HttpSession session = request.getSession(false);
                if (session != null && session.getAttribute("UserEmail") != null) {
                        String userEmail = (String)
```

```
session.getAttribute("UserEmail");
                        try {
                                purchaseService.create(productId,userEmail);
                                mv.setViewName("redirect:/user/dashboard");
                        } catch (Exception e) {
                                mv.setViewName("forward:/user/dashboard");
                                mv.addObject("message", "Error in buying product");
                        }
                return mv;
        }
}
package com.project.sportyshoes.controller;
import java.util.List;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpSession;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.ui.ModelMap;
import org.springframework.web.bind.annotation.ModelAttribute;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RequestMethod;
import org.springframework.web.bind.annotation.RequestParam;
import org.springframework.web.bind.annotation.RestController;
import org.springframework.web.servlet.ModelAndView;
import com.project.sportyshoes.entity.Admin;
import com.project.sportyshoes.entity.Category;
import com.project.sportyshoes.entity.Product;
import com.project.sportyshoes.entity.Purchase;
import com.project.sportyshoes.entity.User;
import com.project.sportyshoes.exception.DataNotFoundException;
import com.project.sportyshoes.exception.DuplicateIdException;
import com.project.sportyshoes.service.ProductService;
import com.project.sportyshoes.service.PurchaseService;
import com.project.sportyshoes.service.UserService;
@RestController
@RequestMapping("/user")
public class UserController {
        @Autowired
        UserService userService;
        @Autowired
        ProductService productService;
        @Autowired
```

```
PurchaseService purchaseService;
        @RequestMapping(value = "create", method = RequestMethod.POST)
        public ModelAndView create(@ModelAttribute("user") User user) {
                ModelAndView mv = new ModelAndView();
                try {
                        userService.create(user);
                        mv.setViewName("userLogin");
                        mv.addObject("message", "Youre accout created login
below");
                        mv.addObject("type", "success");
                        mv.addObject("message", "Your account is successfully
created please login");
                } catch (DuplicateIdException e) {
                        mv.setViewName("signUpUser");
                        mv.addObject("message", "Account already exist please
login");
                return mv;
        }
        @RequestMapping(value = "/", method = RequestMethod.GET)
        public List<User> loadAll() {
                return userService.loadAll();
        }
        @RequestMapping("login")
        public ModelAndView userLogin() {
                return new ModelAndView("userLogin");
        }
        @RequestMapping("signUp")
        public ModelAndView userSiginUp() {
                return new ModelAndView("signUpUser");
        }
        @RequestMapping(value = "/authenticate", method = RequestMethod.POST)
        public ModelAndView authenticate(@RequestParam("email") String email,
@RequestParam("password") String password,
                        HttpServletRequest request, ModelMap model) {
                User user;
                ModelAndView mv = new ModelAndView();
                try {
                        user = (User) userService.getUser(email, password);
                        HttpSession session = request.getSession();
                        session.setAttribute("UserEmail", user.getEmail());
                        model.addAttribute("user", user);
                        mv.setViewName("redirect:/user/dashboard");
                } catch (DataNotFoundException e) {
                        mv.addObject("message", "Invalid details");
```

```
mv.addObject("type", "danger");
                        mv.setViewName("userLogin");
                }
                return mv;
        }
        @RequestMapping("dashboard")
        public ModelAndView adminDashboard(ModelMap model, HttpServletRequest
request) {
                ModelAndView mv = new ModelAndView();
                HttpSession session = request.getSession(false);
                String email = (String) session.getAttribute("UserEmail");
                if (session == null || email == null ||
!request.isRequestedSessionIdValid()) {
                        mv.addObject("message", "Session is over please login
again");
                        mv.addObject("type", "danger");
                        mv.setViewName("userLogin");
                } else {
                        User user;
                        List<Product> products = productService.loadAll();
                        user = userService.find(email);
                        List<Purchase> purchases =
purchaseService.findByUser(user.getId());
                        mv.addObject("products", products);
                        mv.addObject("purchases", purchases);
                        mv.addObject("user", user);
                        mv.setViewName("userDashboard");
                return mv;
        }
        @RequestMapping("/logout")
        public ModelAndView logout(HttpServletRequest request) {
                ModelAndView mv = new ModelAndView();
                HttpSession session = request.getSession(false);
                session.invalidate();
                mv.addObject("message", "Logged out successfully");
                mv.addObject("type", "success");
                mv.setViewName("userLogin");
                return mv;
        }
package com.project.sportyshoes.entity;
import javax.persistence.Entity;
import javax.persistence.GeneratedValue;
import javax.persistence.GenerationType;
import javax.persistence.Id;
```

```
@Entity
public class Admin {
        @Id
        @GeneratedValue(strategy = GenerationType.AUTO)
        private int id;
        private String name;
        private String email;
        private String password;
        public Admin() {
                super();
        }
        public Admin(String name, String email, String password) {
                super();
                this.name = name;
                this.email = email;
                this.password = password;
        }
        public int getId() {
                return id;
        }
        public void setId(int id) {
                this.id = id;
        }
        public String getName() {
                return name;
        }
        public void setName(String name) {
                this.name = name;
        }
        public String getEmail() {
                return email;
        }
        public void setEmail(String email) {
                this.email = email;
        }
        public String getPassword() {
                return password;
        }
```

```
public void setPassword(String password) {
                this.password = password;
        }
        @Override
        public String toString() {
                return "Admin [id=" + id + ", name=" + name + ", email=" + email +
", password=" + password + "]";
        }
package com.project.sportyshoes.entity;
import javax.persistence.Entity;
import javax.persistence.GeneratedValue;
import javax.persistence.GenerationType;
import javax.persistence.Id;
@Entity
public class Category {
        @Id
        @GeneratedValue(strategy = GenerationType.AUTO)
        private int id;
        private String name;
        private String discription;
        public Category() {
        }
        public Category(String name, String discription) {
                super();
                this.name = name;
                this.discription = discription;
        }
        public int getId() {
                return id;
        }
        public void setId(int id) {
                this.id = id;
        }
        public String getName() {
                return name;
        }
        public void setName(String name) {
```

```
this.name = name;
        }
        public String getDiscription() {
                return discription;
        }
        public void setDiscription(String discription) {
                this.discription = discription;
        }
        @Override
        public String toString() {
                return "Category [id=" + id + ", name=" + name + ", discription=" +
discription + "]";
        }
package com.project.sportyshoes.entity;
import javax.persistence.CascadeType;
import javax.persistence.Entity;
import javax.persistence.GeneratedValue;
import javax.persistence.GenerationType;
import javax.persistence.Id;
import javax.persistence.JoinColumn;
import javax.persistence.ManyToOne;
import javax.persistence.Table;
@Entity
@Table(name = "Shoe")
public class Product {
        @GeneratedValue(strategy = GenerationType.AUTO)
        private int id;
        private String name;
        private String discription;
        private double price;
        @ManyToOne(cascade = { CascadeType.PERSIST })
        @JoinColumn(name = "category id")
        private Category category;
        public Product() {
                super();
        }
        public Product(String name, String discription, double price, Category
category) {
                this.name = name;
                this.discription = discription;
```

```
this.price = price;
                this.category = category;
        }
        public int getId() {
                return id;
        }
        public void setId(int id) {
                this.id = id;
        }
        public String getName() {
                return name;
        }
        public void setName(String name) {
                this.name = name;
        }
        public String getDiscription() {
                return discription;
        }
        public void setDiscription(String discription) {
                this.discription = discription;
        }
        public double getPrice() {
                return price;
        }
        public void setPrice(double price) {
                this.price = price;
        }
        public Category getCategory() {
                return category;
        }
        public void setCategory(Category category) {
                this.category = category;
        }
        @Override
        public String toString() {
                return "Product [id=" + id + ", name=" + name + ", discription=" +
discription + ", catogory=" + category + "]";
        }
```

```
package com.project.sportyshoes.entity;
import java.sql.Timestamp;
import javax.persistence.Entity;
import javax.persistence.GeneratedValue;
import javax.persistence.GenerationType;
import javax.persistence.Id;
import javax.persistence.JoinColumn;
import javax.persistence.ManyToOne;
import org.hibernate.annotations.CreationTimestamp;
@Entity
public class Purchase {
        @Id
        @GeneratedValue(strategy = GenerationType.AUTO)
        private int purchase_id;
        @ManyToOne()
        @JoinColumn(name = "user id")
        private User user;
        @ManyToOne()
        @JoinColumn(name = "product_id")
        private Product product;
        @CreationTimestamp
        private Timestamp orderedDate;
        public Purchase() {
        }
        public Purchase(User user, Product product) {
                this.user = user;
                this.product = product;
        }
        public int getPurchase_id() {
                return purchase_id;
        }
        public void setPurchase_id(int purchase_id) {
                this.purchase_id = purchase_id;
        }
        public Timestamp getOrderedDate() {
                return orderedDate;
        }
```

```
public void setOrderedDate(Timestamp orderedDate) {
                this.orderedDate = orderedDate;
        }
        public User getUser() {
                return user;
        }
        public void setUser(User user) {
                this.user = user;
        }
        public Product getProduct() {
                return product;
        }
        public void setProduct(Product product) {
                this.product = product;
        }
        public Timestamp getOrdered date() {
                return orderedDate;
        }
        public void setOrdered_date(Timestamp ordered_date) {
                this.orderedDate = ordered_date;
        }
        @Override
        public String toString() {
                return "Purchase [id=" + purchase_id + ", user=" + user + ",
product=" + product + ", ordered_date="
                                + orderedDate + "]";
        }
package com.project.sportyshoes.entity;
import javax.persistence.Entity;
import javax.persistence.GeneratedValue;
import javax.persistence.GenerationType;
import javax.persistence.Id;
@Entity
public class User {
        @Id
        @GeneratedValue(strategy = GenerationType.AUTO)
        private int id;
```

```
private String name;
        private String email;
        private String password;
        public User() {
        public User(String name, String email, String password) {
                this.name = name;
                this.email = email;
                this.password = password;
        }
        public int getId() {
                return id;
        }
        public void setId(int id) {
                this.id = id;
        }
        public String getName() {
                return name;
        }
        public void setName(String name) {
                this.name = name;
        }
        public String getEmail() {
                return email;
        }
        public void setEmail(String email) {
                this.email = email;
        }
        public String getPassword() {
                return password;
        }
        public void setPassword(String password) {
                this.password = password;
        }
       @Override
       public String toString() {
                return "User [id=" + id + ", name=" + name + ", email=" + email +
", password=" + password + "]";
```

```
}
package com.project.sportyshoes.exception;
public class DataNotFoundException extends Exception{
        public DataNotFoundException(){
                super("Requested data not found");
        }
}
package com.project.sportyshoes.exception;
public class DuplicateIdException extends Exception {
        public DuplicateIdException(String email) {
                super(email+" Already exists");
        }
}
package com.project.sportyshoes.repository;
import org.springframework.data.repository.CrudRepository;
import org.springframework.stereotype.Repository;
import com.project.sportyshoes.entity.Admin;
@Repository
public interface AdminRepository extends CrudRepository<Admin, Integer> {
        Admin findByEmail(String Email);
        boolean existsByEmail(String email);
        Admin findByEmailAndPassword(String email, String password);
package com.project.sportyshoes.repository;
import org.springframework.data.repository.CrudRepository;
import org.springframework.stereotype.Repository;
import com.project.sportyshoes.entity.Category;
@Repository
public interface CategoryRepository extends CrudRepository<Category, Integer> {
        Category findByName(String Name);
        boolean existsByName(String Name);
        void deleteById(int id);
}
```

```
package com.project.sportyshoes.repository;
import java.util.List;
import org.springframework.data.repository.CrudRepository;
import com.project.sportyshoes.entity.Category;
import com.project.sportyshoes.entity.Product;
public interface ProductRepository extends CrudRepository<Product, Integer> {
        List<Product> findByCategory(Category category);
        boolean existsByName(String name);
        List<Product> findByName(String name);
        Product findById(int id);
        List<Product> findByCategoryName(String name);
        boolean existsById(int id);
        void deleteById(int id) throws Exception;
package com.project.sportyshoes.repository;
import java.util.Date;
import java.util.List;
import org.springframework.data.repository.CrudRepository;
import org.springframework.stereotype.Repository;
import com.project.sportyshoes.entity.Purchase;
@Repository
public interface PurchaseRepository extends CrudRepository<Purchase, Integer> {
        List<Purchase> findByProductCategoryName(String id);
        List<Purchase> findByorderedDate(Date date);
        List<Purchase> findByUserId(int id);
package com.project.sportyshoes.repository;
import org.springframework.data.repository.CrudRepository;
import com.project.sportyshoes.entity.User;
public interface UserRepository extends CrudRepository<User, Integer> {
        User findByEmailAndPassword(String email, String password);
```

```
boolean existsByEmail(String emai);
        User findByEmail(String email);
package com.project.sportyshoes.service;
import javax.transaction.Transactional;
import com.project.sportyshoes.entity.Admin;
import com.project.sportyshoes.exception.DataNotFoundException;
import com.project.sportyshoes.exception.DuplicateIdException;
public interface AdminService {
        @Transactional
        int create(Admin admin) throws DuplicateIdException;
        Admin find(String email) throws DataNotFoundException;
        boolean exists(String email);
        Object find(String email, String password) throws DataNotFoundException;
        void changePassword(String email, String oldPassword, String newPassword)
throws Exception;
package com.project.sportyshoes.service;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Service;
import org.springframework.transaction.annotation.Transactional;
import com.project.sportyshoes.entity.Admin;
import com.project.sportyshoes.exception.DataNotFoundException;
import com.project.sportyshoes.exception.DuplicateIdException;
import com.project.sportyshoes.repository.AdminRepository;
@Service
public class AdminServiceImpl implements AdminService {
        @Autowired
        AdminRepository adminRepository;
        @Override
        @Transactional
        public int create(Admin admin) throws DuplicateIdException {
                if (adminRepository.existsByEmail(admin.getEmail())) {
                        throw new DuplicateIdException(admin.getEmail());
                } else {
```

```
int id = adminRepository.save(admin).getId();
                        return id;
                }
        }
        @Override
        public Admin find(String email) throws DataNotFoundException {
                Admin admin = adminRepository.findByEmail(email);
                if (admin == null) {
                        throw new DataNotFoundException();
                return admin;
        }
        @Override
        public boolean exists(String email) {
                return false;
        }
        @Override
        public Admin find(String email, String password) throws
DataNotFoundException {
                System.out.println(email + " " + password);
                Admin admin = adminRepository.findByEmailAndPassword(email,
password);
                if (admin == null) {
                        throw new DataNotFoundException();
                return admin;
        }
        @Override
        public void changePassword(String email, String oldPassword, String
newPassword) throws Exception {
                Admin admin = adminRepository.findByEmail(email);
                if (oldPassword.equals(admin.getPassword())) {
                        admin.setPassword(newPassword);
                        adminRepository.save(admin);
                } else {
                        throw new Exception("Invalid Password");
                }
        }
package com.project.sportyshoes.service;
import java.util.List;
```

```
import javax.transaction.Transactional;
import com.project.sportyshoes.entity.Category;
import com.project.sportyshoes.exception.DataNotFoundException;
import com.project.sportyshoes.exception.DuplicateIdException;
public interface CategoryService {
        @Transactional
        int create(Category catogory) throws DuplicateIdException;
        List<Category> findAll();
        Category find(String Name) throws DataNotFoundException;
        void delete(int id);
package com.project.sportyshoes.service;
import java.util.List;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Service;
import com.project.sportyshoes.entity.Category;
import com.project.sportyshoes.exception.DataNotFoundException;
import com.project.sportyshoes.exception.DuplicateIdException;
import com.project.sportyshoes.repository.CategoryRepository;
@Service
public class CategoryServiceImpl implements CategoryService {
        @Autowired
        CategoryRepository catogoryRepository;
        @Override
        public int create(Category catogory) throws DuplicateIdException {
                if (catogoryRepository.existsByName(catogory.getName())) {
                        throw new DuplicateIdException(catogory.getName());
                } else {
                        return catogoryRepository.save(catogory).getId();
                }
        }
        @Override
        public List<Category> findAll() {
                List<Category> catogories = (List<Category>)
catogoryRepository.findAll();
                return catogories;
        }
```

```
@Override
        public Category find(String Name) throws DataNotFoundException {
                Category catogory = catogoryRepository.findByName(Name);
                if (catogory == null) {
                        throw new DataNotFoundException();
                } else {
                        return catogory;
                }
        }
        @Override
        public void delete(int id) {
                catogoryRepository.deleteById(id);
        }
package com.project.sportyshoes.service;
import java.util.List;
import javax.transaction.Transactional;
import com.project.sportyshoes.entity.Product;
import com.project.sportyshoes.exception.DataNotFoundException;
import com.project.sportyshoes.exception.DuplicateIdException;
public interface ProductService {
        @Transactional
        String create(Product product, String catogory name) throws
DuplicateIdException, DataNotFoundException;
        List<Product> loadAll();
        List<Product> findProduct(String name);
        Product findProduct(int name);
        List<Product> findProduct(String catogory_name, Boolean catogory);
        String update(Product product) throws Exception;
        void delete(int id) throws Exception;
package com.project.sportyshoes.service;
import java.util.List;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Service;
```

```
import com.project.sportyshoes.entity.Category;
import com.project.sportyshoes.entity.Product;
import com.project.sportyshoes.exception.DataNotFoundException;
import com.project.sportyshoes.exception.DuplicateIdException;
import com.project.sportyshoes.repository.ProductRepository;
@Service
public class ProductServiceImpl implements ProductService {
        @Autowired
        ProductRepository productRepository;
        @Autowired
        CategoryService categoryService;
        @Override
        public String create(Product product, String category_name) throws
DuplicateIdException, DataNotFoundException {
                if (productRepository.existsByName(product.getName())) {
                        return "Product with name " + product.getName() + "
exists";
                try {
                        Category category = categoryService.find(category_name);
                        product.setCategory(category);
                        String id = productRepository.save(product).getName();
                        return id;
                } catch (DataNotFoundException e) {
                        throw new DataNotFoundException();
                }
        }
        @Override
        public List<Product> loadAll() {
                List<Product> products = (List<Product>)
productRepository.findAll();
                return products;
        }
        @Override
        public List<Product> findProduct(String name) {
                List<Product> products = productRepository.findByName(name);
                return products;
        }
        @Override
        public List<Product> findProduct(String name, Boolean catogory) {
                List<Product> products =
productRepository.findByCategoryName(name);
```

```
return products;
        }
        @Override
        public String update(Product product) throws Exception {
                if (!productRepository.existsById(product.getId())) {
                        throw new Exception("Invalid data please update with unique
name or data not found for request id");
                } else {
                        try {
                                String name =
productRepository.save(product).getName();
                                return name;
                        } catch (Exception e) {
                                throw new Exception();
                        }
                }
        }
        @Override
        public void delete(int id) throws Exception {
                if (!productRepository.existsById(id))
                        throw new Exception("Product not found");
                else {
                        productRepository.deleteById(id);
                }
        }
        @Override
        public Product findProduct(int id) {
                Product product = productRepository.findById(id);
                return product;
        }
package com.project.sportyshoes.service;
import java.text.ParseException;
import java.util.List;
import com.project.sportyshoes.entity.Purchase;
public interface PurchaseService {
        void create(int id,String userEmail);
        List<Purchase> findByUser(int id);
```

```
List<Purchase> findAll();
        List<Purchase> findByCategory(String name);
        List<Purchase> findByDate(String date) throws ParseException;
package com.project.sportyshoes.service;
import java.text.ParseException;
import java.text.SimpleDateFormat;
import java.util.Date;
import java.util.List;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Service;
import com.project.sportyshoes.entity.Purchase;
import com.project.sportyshoes.repository.PurchaseRepository;
@Service
public class PurchaseServiceImpl implements PurchaseService {
        @Autowired
        PurchaseRepository purchaseRepository;
        @Autowired
        UserService userService;
        @Autowired
        ProductService productService;
        @Override
        public void create(int id, String email) {
                Purchase purchase = new Purchase(userService.find(email),
productService.findProduct(id));
                purchaseRepository.save(purchase);
        }
        @Override
        public List<Purchase> findByUser(int id) {
                return purchaseRepository.findByUserId(id);
        }
        @Override
        public List<Purchase> findByCategory(String name) {
                return purchaseRepository.findByProductCategoryName(name);
        }
```

```
@Override
        public List<Purchase> findByDate(String date) throws ParseException {
                SimpleDateFormat dateFormat = new SimpleDateFormat("yyyy-MM-dd");
                Date formatedDate;
                try {
                        formatedDate = dateFormat.parse(date);
                        List<Purchase> purchases =
purchaseRepository.findByorderedDate(formatedDate);
                        return purchases;
                } catch (ParseException e) {
                        throw new ParseException(date, 0);
                }
        }
        @Override
        public List<Purchase> findAll() {
                return (List<Purchase>) purchaseRepository.findAll();
        }
package com.project.sportyshoes.service;
import java.util.List;
import javax.transaction.Transactional;
import com.project.sportyshoes.entity.User;
import com.project.sportyshoes.exception.DataNotFoundException;
import com.project.sportyshoes.exception.DuplicateIdException;
public interface UserService {
        @Transactional
        String create(User user) throws DuplicateIdException;
        User getUser(String email, String password) throws DataNotFoundException;
        List<User> loadAll();
        User find(String email);
package com.project.sportyshoes.service;
import java.util.List;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Service;
```

```
import com.project.sportyshoes.entity.User;
import com.project.sportyshoes.exception.DataNotFoundException;
import com.project.sportyshoes.exception.DuplicateIdException;
import com.project.sportyshoes.repository.UserRepository;
@Service
public class UserServiceImpl implements UserService {
        @Autowired
        UserRepository userRepository;
        @Override
        public String create(User user) throws DuplicateIdException {
                if (userRepository.existsByEmail(user.getEmail())) {
                        throw new DuplicateIdException(user.getEmail());
                } else {
                        String name = userRepository.save(user).getName();
                        return name;
                }
        }
        @Override
        public User getUser(String email, String password) throws
DataNotFoundException {
                User user = userRepository.findByEmailAndPassword(email, password);
                if (user == null) {
                        throw new DataNotFoundException();
                } else {
                        return user;
                }
        }
        @Override
        public List<User> loadAll() {
                List<User> users = (List<User>) userRepository.findAll();
                return users;
        }
        @Override
        public User find(String email) {
                return userRepository.findByEmail(email);
        }
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"</pre>
        pageEncoding="ISO-8859-1"%>
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html>
<html>
<head>
```

```
<meta charset="ISO-8859-1">
<title>User Dashboard</title>
<link rel="stylesheet"</pre>
href="https://cdn.jsdelivr.net/npm/bootstrap@4.0.0/dist/css/bootstrap.min.css"
integrity="sha384-Gn5384xqQ1aoWXA+058RXPxPg6fy4IWvTNh0E263XmFcJlSAwiGgFAW/dAiS6JXm"
        crossorigin="anonymous" />
</head>
<body>
        <div class="card ml-auto text-center fixed-top" data-toggle="modal"</pre>
                data-target="#exampleModalLong" style="width: 10rem">
                 <div class="card-body">
                         <h6 class="card-title">${user.name }</h6>
                </div>
        </div>
        <div class="modal fade" id="exampleModalLong" tabindex="-1"</pre>
                 role="dialog" aria-labelledby="exampleModalLongTitle"
                aria-hidden="true">
                <div class="modal-dialog" role="document">
                         <div class="modal-content">
                                 <div class="modal-header">
                                          <h5 class="modal-title"
id="exampleModalLongTitle">User
                                                  Details</h5>
                                          <button type="button" class="close"</pre>
data-dismiss="modal"
                                                  aria-label="Close">
                                                  <span
aria-hidden="true">×</span>
                                          </button>
                                 <div class="model-body" style="padding: 10px">
                                          <h6>Name:${user.name}</h6>
                                          <h6>Name:${user.email}</h6>
                                 </div>
                                 <div class="modal-footer">
                                          <button type="button" class="btn</pre>
btn-secondary"
                                                  data-dismiss="modal">Close</button>
                                          <a href="/user/logout" class="btn</pre>
btn-danger">Logout</a>
                                 </div>
                         </div>
                </div>
        </div>
        <h2 class="m-2">Hii ${user.name} welcome to Sporty shoe</h2>
```

```
<h3 class="m-3">Products</h3>
       <div class="d-flex p-2">
              <c:forEach var="product" items="${products}">
                     <div class="card m-2" style="width: 18rem;">
                            <div class="card-body">
                                   <h5 class="card-title">${product.name}</h5>
                                   <h6 class="card-subtitle mb-2</pre>
text-muted">${product.category.name}</h6>
class="card-text">${product.discription}
                                   <a href="/purchase/buy/${product.id}"</pre>
class="card-link btn btn-primary btn-sm">Buy Product</a>
                            </div>
                     </div>
              </c:forEach>
       </div>
       <h3 class="m-3">Orders</h3>
       <div class="container mt-10 table-responsive">
     <thead>
        Order Id
          Product name
          Product Category
          Product Price
          Purchased Date
        </thead>
       <c:forEach var="purchase" items="${purchases}">
              ${purchase.purchase id }
                     ${purchase.product.id}
                     ${purchase.product.category.name}
                     ${purchase.product.price}
                     ${purchase.ordered date}
              </c:forEach>
       </div>
       <script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"</pre>
integrity="sha384-q8i/X+965Dz00rT7abK41JStQIAqVgRVzpbzo5smXKp4YfRvH+8abtTE1Pi6jizo"
              crossorigin="anonymous"></script>
       <script
```

```
src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.3/umd/popper.min.js"
integrity="sha384-ZMP7rVo3mIykV+2+9J3UJ46jBk0WLaUAdn689aCwoqbBJiSnjAK/18WvCWPIPm49"
                  crossorigin="anonymous"></script>
         <script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.1.1/js/bootstrap.min.js"
integrity="sha384-smHYKdLADwkXOn1EmN1qk/HfnUcbVRZyYmZ4qpPea6sjB/pTJ0euyQp0Mk8ck+5T"
                  crossorigin="anonymous"></script>
</body>
</html>

<
<%@page import="com.project.sportyshoes.entity.Product"%>
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"</pre>
         pageEncoding="ISO-8859-1" isELIgnored="false"%>
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<%@ taglib uri="http://java.sun.com/jsp/jstl/functions" prefix="fn"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Admin Dashboad</title>
<link rel="stylesheet"</pre>
href="https://cdn.jsdelivr.net/npm/bootstrap@4.0.0/dist/css/bootstrap.min.css"
integrity="sha384-Gn5384xqQ1aoWXA+058RXPxPg6fy4IWvTNh0E263XmFcJlSAwiGgFAW/dAiS6JXm"
         crossorigin="anonymous" />
</head>
<body>
         <h5>${message }</h5>
         <h2 class="m-2">Hii ${admin.name} welcome to Sporty shoe</h2>
         <div class="card ml-auto fixed-top" style="width: 15rem">
                  <div class="card-body">
                           <h6 class="card-title">${admin.name }</h6>
                           <h6 class="card-title">${admin.email }</h6>
                           <a href="#" data-toggle="modal"
data-target="#exampleModalLong"
                                   class="text-primary">Change Password</a> <a</pre>
href="/admin/logout"
                                   class="text-danger">Logout</a>
                  </div>
         </div>
         <div class="modal fade" id="exampleModalLong" tabindex="-1"</pre>
                  role="dialog" aria-labelledby="exampleModalLongTitle"
                  aria-hidden="true">
```

```
<div class="modal-dialog" role="document">
                         <div class="modal-content">
                                 <div class="modal-header">
                                          <h5 class="modal-title"
id="exampleModalLongTitle">Admin
                                                  Details</h5>
                                          <button type="button" class="close"</pre>
data-dismiss="modal"
                                                  aria-label="Close">
                                                  <span
aria-hidden="true">×</span>
                                          </button>
                                 </div>
                                 <div class="model-body" style="padding: 10px">
                                          <form action="/admin/changePassword"</pre>
method="post">
                                                  <div class="form-group">
                                                           <label
for="oldPassword">Old Password</label> <input type="text"</pre>
                                                                   name="oldPassword"
required="true"
                                                                   placeholder="Enter
Old Password" id="oldPassword"
class="form-control" />
                                                  </div>
                                                  <div class="form-group">
                                                           <label for="password">New
Password</label> <input type="password"
                                                                   name="newPassword"
required="true"
                                                                   placeholder="Enter
new password" id="password"
class="form-control" />
                                                  </div>
                                                  <div class="form-group">
                                                           <input type="submit"</pre>
value="Change Password"
                                                                   class="btn
btn-primary btn-block" />
                                                  </div>
                                                  <div class="form-group">
                                                           <input type="button"</pre>
value="Close"
                                                                   class="btn
btn-secondary btn-block" data-dismiss="modal" />
                                                  </div>
                                          </form>
                                 </div>
```

```
</div>
                </div>
        </div>
        <h2 class="m-2 mt-5 mb-3 d-inline-block">Category</h2>
        <button type="button" class="btn btn-primary btn-sm mb-2"</pre>
                data-toggle="modal" data-target="#addCategory">Add Category
                +</button>
        <div class="modal fade" id="addCategory" tabindex="-1" role="dialog"</pre>
                aria-labelledby="exampleModalLongTitle" aria-hidden="true">
                 <div class="modal-dialog" role="document">
                         <div class="modal-content">
                                 <div class="modal-header">
                                          <h5 class="modal-title"
id="exampleModalLongTitle">Add
                                                  Category</h5>
                                          <button type="button" class="close"</pre>
data-dismiss="modal"
                                                  aria-label="Close">
                                                  <span
aria-hidden="true">×</span>
                                          </button>
                                 </div>
                                 <div class="model-body" style="padding: 10px">
                                          <form action="/category/create"</pre>
method="post">
                                                  <div class="form-group">
                                                           <label
for="category_name">Name</label> <input type="text"</pre>
                                                                   required="true"
name="name" id="category_name"
                                                                   placeholder="Enter
Name" class="form-control" />
                                                  </div>
                                                  <div class="form-group">
                                                           <label
for="desc">Description</label> <input type="text"</pre>
                                                                   name="discription"
required="true"
                                                                   placeholder="Enter
description" id="desc" class="form-control" />
                                                  </div>
                                                  <div class="form-group">
                                                          <input type="submit"</pre>
value="Add Category"
                                                                   class="btn
btn-primary btn-block" />
                                                  </div>
                                                  <div class="form-group">
```

```
<input type="button"</pre>
value="Close"
                                                           class="btn
btn-secondary btn-block" data-dismiss="modal" />
                                            </div>
                                     </form>
                             </div>
                      </div>
               </div>
       </div>
       <div class="container mt-10 table-responsive">
               Category Id
                             Category Name
                             Category Description
                             Action
                      <c:forEach var="category" items="${categories}">
                             ${category.id}
                                     ${category.name}
                                     ${category.discription}
                                     <a
href="/category/delete/${category.id}" class="text-danger">Delete</a>
                             </c:forEach>
              </div>
       <h2 class="m-2 mb-3 d-inline-block">Products</h2>
       <button type="button" class="btn btn-primary btn-sm mb-2"</pre>
              data-toggle="modal" data-target="#addProduct">Add Products
              +</button>
       <div class="modal fade" id="addProduct" tabindex="-1" role="dialog"</pre>
              aria-labelledby="exampleModalLongTitle" aria-hidden="true">
              <div class="modal-dialog" role="document">
                      <div class="modal-content">
                             <div class="modal-header">
                                     <h5 class="modal-title"
id="exampleModalLongTitle">Add
                                            Category</h5>
                                     <button type="button" class="close"</pre>
data-dismiss="modal"
                                            aria-label="Close">
                                            <span
aria-hidden="true">×</span>
                                     </button>
                             </div>
```

```
<div class="model-body" style="padding: 10px">
                                          <form action="/product/create"</pre>
method="post">
                                                   <div class="form-group">
                                                           <label</pre>
for="product name">Name</label> <input type="text"</pre>
                                                                    required="true"
name="name" id="product_name"
                                                                    placeholder="Enter
Name" class="form-control" />
                                                   </div>
                                                   <div class="form-group">
                                                           <label
for="desc">Description</label> <input type="text"</pre>
                                                                    name="discription"
required="true"
                                                                    placeholder="Enter
description" id="desc" class="form-control" />
                                                   </div>
                                                   <div class="form-group">
                                                            <label
for="category">Category</label> <select required="true"</pre>
name="category_name" class="form-control">
                                                                    <option
value="">Choose the category</option>
                                                                    <c:forEach
var="category" items="${categories}">
                                                                             <option
value="${category.name}">${category.name}</option>
                                                                    </c:forEach>
                                                            </select>
                                                   </div>
                                                   <div class="form-group">
                                                            <label
for="price">Price</label> <input type="number"</pre>
                                                                    name="price"
required="true" placeholder="Enter price"
                                                                    id="price"
class="form-control" />
                                                   </div>
                                                   <div class="form-group">
                                                            <input type="submit"</pre>
value="Add Product"
                                                                    class="btn
btn-primary btn-block" />
                                                   </div>
                                                   <div class="form-group">
                                                            <input type="button"</pre>
```

```
value="Close"
                                              class="btn
btn-secondary btn-block" data-dismiss="modal" />
                                   </div>
                             </form>
                       </div>
                 </div>
           </div>
      </div>
      <div class="container mt-10 table-responsive">
           Product Id
                       Shoe Name
                       Shoe Description
                       Shoe price
                       Action
                 <c:forEach var="product" items="${products}">
                       ${product.id}
                             ${product.name}
                             ${product.discription}
                             ${product.price}
href="/product/update/${product.id}">Update</a>
                             <a href="/product/delete/${product.id}"
class="text-danger">Delete</a>
                       </c:forEach>
           </div>
      <h2 class="m-2 mb-3">Users</h2>
      <div class="container mt-10 table-responsive">
           User Id
                       User Name
                       User Email
                 <c:forEach var="user" items="${users}">
                       ${user.id}
                             ${user.name}
                             ${user.email}
```

```
</c:forEach>
              </div>
       <h2 class="m-2 mb-3">Purchases</h2>
       <div class="container mt-10 d-flex justify-content-between">
              <form action="/admin/filter/category">
                      <div class="form-inline m-2 ml-10">
                             <label for="category" class="mr-2">Filter by
Category : </label> <select</pre>
                                    required="true" name="category_name"
class="form-control">
                                    <option value="">Choose the
category</option>
                                    <c:forEach var="category"
items="${categories}">
                                            <option
value="${category.name}">${category.name}</option>
                                    </c:forEach>
                             </select> <input type="submit" value="Filter
Category"
                                    class="btn btn-primary ml-2" />
                             <c:if test="${filteredPurchases != null }">
                                    <a href="/admin/dashboard" class="btn</pre>
btn-danger ml-2">Clear Filter</a>
                             </c:if>
                      </div>
              </form>
       </div>
       <div class="container mt-10 table-responsive">
              <thead>
                             Order Id
                                    User name
                                    Product name
                                    Product Category
                                    Product Price
                                    Purchased Date
                             </thead>
                      <c:if test="${filteredPurchases == null }">
                                    <c:forEach var="purchase"
items="${purchases}">
                                            ${purchase.purchase id}
}
                                                   ${purchase.user.name}
}
```

```
${purchase.product.id}
${purchase.product.category.name}
${purchase.product.price}
${purchase.ordered date}
                                            </c:forEach>
                             </c:if>
                             <c:if test="${filteredPurchases != null }">
                                    <c:forEach var="purchase"
items="${filteredPurchases}">
                                            ${purchase.purchase_id}
}
                                                   ${purchase.user.name}
}
${purchase.product.id}
${purchase.product.category.name}
${purchase.product.price}
${purchase.ordered_date}
                                            </c:forEach>
                             </c:if>
                      </div>
       <script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"</pre>
integrity="sha384-q8i/X+965Dz00rT7abK41JStQIAqVgRVzpbzo5smXKp4YfRvH+8abtTE1Pi6jizo"
              crossorigin="anonymous"></script>
       <script
src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.3/umd/popper.min.js"
integrity="sha384-ZMP7rVo3mIykV+2+9J3UJ46jBk0WLaUAdn689aCwoqbBJiSnjAK/18WvCWPIPm49"
              crossorigin="anonymous"></script>
       <script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.1.1/js/bootstrap.min.js"
integrity="sha384-smHYKdLADwkXOn1EmN1qk/HfnUcbVRZyYmZ4qpPea6sjB/pTJ0euyQp0Mk8ck+5T"
              crossorigin="anonymous"></script>
</body>
```

```
</html>
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"</pre>
        pageEncoding="ISO-8859-1" isELIgnored="false"%>
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Admin Login</title>
<link rel="stylesheet"</pre>
href="https://cdn.jsdelivr.net/npm/bootstrap@4.0.0/dist/css/bootstrap.min.css"
integrity="sha384-Gn5384xqQ1aoWXA+058RXPxPg6fy4IWvTNh0E263XmFcJlSAwiGgFAW/dAiS6JXm"
        crossorigin="anonymous" />
</head>
<body>
        <c:if test="${message != null}">
                 <div class="alert alert-${type } alert-dismissible">
                         <button class="close" type="button"</pre>
data-dismiss="alert">×</button>
                         ${message }
                </div>
        </c:if>
        <div
                class="mt-5 d-flex flex-column align-items-center
justify-content-conter">
                 <h2>Admin Login</h2>
                 <div class="container w-25">
                         <form action="/admin/authenticate" method="post">
                                 <div class="form-group">
                                          <label for="email">Email</label> <input</pre>
type="email" name="email"
                                                  required="true" placeholder="Enter
email" id="email"
                                                  class="form-control" />
                                 </div>
                                 <div class="form-group">
                                          <label for="password">Password</label>
<input type="password"</pre>
                                                  name="password" required="true"
placeholder="Enter password"
                                                  id="password" class="form-control"
/>
                                 </div>
                                 <div class="form-group">
                                          <input type="submit" value="Login"</pre>
                                                  class="btn btn-primary btn-block"
/>
```

```
</div>
                                 0r
                                 <div class="form-group">
                                         <a href="/home" type="submit" value="Login"</pre>
                                                 class="btn btn-secondary btn-block"
> Home</a>
                                 </div>
                        </form>
                </div>
        </div>
        <script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"</pre>
integrity="sha384-q8i/X+965Dz00rT7abK41JStQIAqVgRVzpbzo5smXKp4YfRvH+8abtTE1Pi6jizo"
                crossorigin="anonymous"></script>
        <script
src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.3/umd/popper.min.js"
integrity="sha384-ZMP7rVo3mIykV+2+9J3UJ46jBk0WLaUAdn689aCwoqbBJiSnjAK/18WvCWPIPm49"
                crossorigin="anonymous"></script>
        <script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.1.1/js/bootstrap.min.js"
integrity="sha384-smHYKdLADwkXOn1EmN1qk/HfnUcbVRZyYmZ4qpPea6sjB/pTJ0euyQp0Mk8ck+5T"
                crossorigin="anonymous"></script>
</body>
</html>
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"</pre>
        pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Home</title>
<link rel="stylesheet"</pre>
href="https://cdn.jsdelivr.net/npm/bootstrap@4.0.0/dist/css/bootstrap.min.css"
integrity="sha384-Gn5384xqQ1aoWXA+058RXPxPg6fy4IWvTNh0E263XmFcJlSAwiGgFAW/dAiS6JXm"
        crossorigin="anonymous" />
</head>
<body>
        <div class="d-flex align-items-center justify-content-center text-center"</pre>
style="height: 100vh; width: 100vw;">
```

```
<div>
                        <h1 class="display-2 mb-5">Welcome to Sporty Shoe</h1>
                        <a href="/adminLogin" class="btn btn-primary">Admin
Login</a>
                        <a href="/user/login" class="btn btn-primary">User
Login</a>
                        <a href="/user/signUp" class="btn btn-primary">User
SignUp</a>
                </div>
        </div>
        <script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"</pre>
integrity="sha384-q8i/X+965Dz00rT7abK41JStQIAqVgRVzpbzo5smXKp4YfRvH+8abtTE1Pi6jizo"
                crossorigin="anonymous"></script>
        <script
src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.3/umd/popper.min.js"
integrity="sha384-ZMP7rVo3mIykV+2+9J3UJ46jBk0WLaUAdn689aCwoqbBJiSnjAK/18WvCWPIPm49"
                crossorigin="anonymous"></script>
        <script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.1.1/js/bootstrap.min.js"
integrity="sha384-smHYKdLADwkXOn1EmN1qk/HfnUcbVRZyYmZ4qpPea6sjB/pTJ0euyQp0Mk8ck+5T"
                crossorigin="anonymous"></script>
</body>
</html>
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"</pre>
        pageEncoding="ISO-8859-1"%>
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Sign Up user</title>
<link rel="stylesheet"</pre>
href="https://cdn.jsdelivr.net/npm/bootstrap@4.0.0/dist/css/bootstrap.min.css"
integrity="sha384-Gn5384xqQ1aoWXA+058RXPxPg6fy4IWvTNh0E263XmFcJlSAwiGgFAW/dAiS6JXm"
        crossorigin="anonymous" />
</head>
<body>
        <c:if test="${message != null}">
                <div class="alert alert-danger alert-dismissible text-center">
                         <button class="close" type="button"</pre>
data-dismiss="alert">×</button>
```

```
${message } <strong><a href="/user/login">here</a></strong>
                </div>
        </c:if>
        <div
                class="mt-5 d-flex flex-column align-items-center
justify-content-conter mt-20"
                style="height: 100vh">
                <h2>SignUp User</h2>
                <div class="container w-25">
                        <form action="/user/create" method="post">
                                 <div class="form-group">
                                         <label for="name">Name</label> <input</pre>
type="text" name="name"
                                                 required="true" placeholder="Enter
name" id="name"
                                                 class="form-control" />
                                 </div>
                                 <div class="form-group">
                                         <label for="email">Email</label> <input</pre>
type="email" name="email"
                                                 required="true" placeholder="Enter
email" id="email"
                                                 class="form-control" />
                                 </div>
                                 <div class="form-group">
                                         <label for="password">Password</label>
<input type="password"</pre>
                                                 name="password" required="true"
placeholder="Enter password"
                                                 id="password" class="form-control"
/>
                                 </div>
                                 <div class="form-group">
                                         <input type="submit" value="SignUp"</pre>
                                                 class="btn btn-primary btn-block"
/>
                                 </div>
                                 0r
                                 <div class="form-group">
                                         <a href="/home" type="submit" value="Login"</pre>
                                                 class="btn btn-secondary
btn-block"> Home</a>
                                 </div>
                        </form>
                </div>
        </div>
```

```
<script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"</pre>
integrity="sha384-q8i/X+965Dz00rT7abK41JStQIAqVgRVzpbzo5smXKp4YfRvH+8abtTE1Pi6jizo"
                crossorigin="anonymous"></script>
        <script
src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.3/umd/popper.min.js"
integrity="sha384-ZMP7rVo3mIykV+2+9J3UJ46jBk0WLaUAdn689aCwoqbBJiSnjAK/18WvCWPIPm49"
                crossorigin="anonymous"></script>
        <script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.1.1/js/bootstrap.min.js"
integrity="sha384-smHYKdLADwkXOn1EmN1qk/HfnUcbVRZyYmZ4qpPea6sjB/pTJ0euyQp0Mk8ck+5T"
                crossorigin="anonymous"></script>
</body>
</html>
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"</pre>
        pageEncoding="ISO-8859-1"%>
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Update Product</title>
<link rel="stylesheet"</pre>
href="https://cdn.jsdelivr.net/npm/bootstrap@4.0.0/dist/css/bootstrap.min.css"
integrity="sha384-Gn5384xqQ1aoWXA+058RXPxPg6fy4IWvTNh0E263XmFcJlSAwiGgFAW/dAiS6JXm"
        crossorigin="anonymous" />
</head>
<body>
        <h2 class="m-4 text-center">Update Product</h2>
        <div class="container w-50">
                <form action="/product/update" method="post">
                         <div class="form-group">
                                 <label for="id">Id</label> <input type="text"</pre>
value="${product.id}"
                                         name="id" readonly="readonly" id="id"
class="form-control" />
                                 <small id="filehelp" class="form-text</pre>
text-muted">You can't Edit</small>
                         </div>
                         <div class="form-group">
                                 <label for="name">Name</label> <input type="text"</pre>
                                         value="${product.name}" required="required"
name="name" id="name"
```

```
class="form-control" />
                         </div>
                         <div class="form-group">
                                 <label for="discription">Description</label> <input</pre>
type="text"
                                          value="${product.discription}"
name="discription" id="discription"
                                          class="form-control" />
                         </div>
                         <div class="form-group">
                                 <label for="category">Category</label> <select</pre>
required="required"
                                          name="category" id="category"
class="form-control">
                                          <option value="${product.category.id</pre>
}">${product.category.name}</option>
                                          <c:forEach var="category"
items="${categories}">
                                                  <c:if test="${category.id !=
product.category.id }">
                                                           <option
value="${category.id }">${category.name}</option>
                                                  </c:if>
                                          </c:forEach>
                                 </select>
                         </div>
                         <div class="form-group">
                                 <label for="price">Price</label> <input</pre>
type="number"
                                          name="price" value=${product.price }
required="required"
                                          id="price" class="form-control" />
                         </div>
                         <div class="form-group">
                                 <input type="submit" value="Update"</pre>
                                          class="btn btn-primary btn-block" />
                         </div>
                </form>
        </div>
        <script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"</pre>
integrity="sha384-q8i/X+965Dz00rT7abK41JStQIAqVgRVzpbzo5smXKp4YfRvH+8abtTE1Pi6jizo"
                crossorigin="anonymous"></script>
        <script
src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.3/umd/popper.min.js"
integrity="sha384-ZMP7rVo3mIykV+2+9J3UJ46jBk0WLaUAdn689aCwoqbBJiSnjAK/18WvCWPIPm49"
                crossorigin="anonymous"></script>
        <script
```

```
src="https://stackpath.bootstrapcdn.com/bootstrap/4.1.1/js/bootstrap.min.js"
integrity="sha384-smHYKdLADwkXOn1EmN1qk/HfnUcbVRZyYmZ4qpPea6sjB/pTJ0euyQp0Mk8ck+5T"
                crossorigin="anonymous"></script>
</body>
</html>
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"</pre>
        pageEncoding="ISO-8859-1"%>
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Sign Up user</title>
<link rel="stylesheet"</pre>
href="https://cdn.jsdelivr.net/npm/bootstrap@4.0.0/dist/css/bootstrap.min.css"
integrity="sha384-Gn5384xqQ1aoWXA+058RXPxPg6fy4IWvTNh0E263XmFcJlSAwiGgFAW/dAiS6JXm"
        crossorigin="anonymous" />
</head>
<body>
        <c:if test="${message != null}">
                <div class="alert alert-${type } alert-dismissible">
                         <button class="close" type="button"</pre>
data-dismiss="alert">×</button>
                        ${message }
                </div>
        </c:if>
        <div
                class="mt-5 d-flex flex-column align-items-center
justify-content-conter">
                <h2>User Login</h2>
                <div class="container w-25">
                         <form action="/user/authenticate" method="post">
                                 <div class="form-group">
                                         <label for="email">Email</label> <input</pre>
type="email" name="email"
                                                  required="true" placeholder="Enter
email" id="email"
                                                  class="form-control" />
                                 </div>
                                 <div class="form-group">
                                         <label for="password">Password</label>
<input type="password"</pre>
                                                  name="password" required="true"
placeholder="Enter password"
                                                  id="password" class="form-control"
/>
```

```
</div>
                                <div class="form-group">
                                        <input type="submit" value="Login"</pre>
                                                class="btn btn-primary btn-block"
/>
                                </div>
                                0r
                                <div class="form-group">
                                        <a href="/home" type="submit" value="Login"</pre>
                                                class="btn btn-secondary btn-block"
> Home</a>
                                </div>
                        </form>
                </div>
        </div>
        <script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"</pre>
integrity="sha384-q8i/X+965Dz00rT7abK41JStQIAqVgRVzpbzo5smXKp4YfRvH+8abtTE1Pi6jizo"
                crossorigin="anonymous"></script>
        <script
src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.3/umd/popper.min.js"
integrity="sha384-ZMP7rVo3mIykV+2+9J3UJ46jBk0WLaUAdn689aCwoqbBJiSnjAK/18WvCWPIPm49"
                crossorigin="anonymous"></script>
        <script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.1.1/js/bootstrap.min.js"
integrity="sha384-smHYKdLADwkXOn1EmN1qk/HfnUcbVRZyYmZ4qpPea6sjB/pTJ0euyQp0Mk8ck+5T"
                crossorigin="anonymous"></script>
</body>
</html>
```