SOURCE CODE

1.Product Controller

package com.sportyShoes.controller;

import java.util.ArrayList;

import java.util.Date;

import java.util.List;

import java.util.Optional;

import org.springframework.beans.factory.annotation.Autowired;

import org.springframework.web.bind.annotation.PathVariable;

import org.springframework.web.bind.annotation.RequestBody;

import org.springframework.web.bind.annotation.RequestMapping;

import org.springframework.web.bind.annotation.RequestMethod;

import org.springframework.web.bind.annotation.RestController;

import com.sportyShoes.model.Product;

import com.sportyShoes.service.productRepository;

@RestController

@RequestMapping("/Product")

public class ProductController

{

    @Autowired

  productRepository productRepo;

    @RequestMapping("/getAll")

    public List<Product> getAllProduct()

    {

        List<Product> product = new ArrayList<Product>();

        productRepo.findAll().forEach(product::add);

        return product;

    }

```java
@RequestMapping(method = RequestMethod.POST, value="/addProduct")
public String addProduct(@RequestBody Product product)
{
        Date date = new Date();
    product.setDate(date);
        productRepo.save(product);
        return "Product is added";
}


@RequestMapping(method = RequestMethod.DELETE, value="/deleteProduct/{id}")
public String deleteProduct(@PathVariable int id)
{
        productRepo.deleteById(id);
        return "Product is Deleted";
}


@RequestMapping(method = RequestMethod.PUT, value="/updateProduct/{id}")
public String updateProduct(@PathVariable int id,@RequestBody Product product)
{
Date date = new Date();
product.setDate(date);
product.setProductId(id);
        productRepo.save(product);
        return "Product is updated";
}


@RequestMapping("/getById/{id}")
public Optional<Product> allProduct(@PathVariable int id)
{
        return productRepo.findById(id);
}
```

```java
@RequestMapping("/getBySeason/{season}")
public List<Product> allProductBySeason(@PathVariable String season)
{
        return productRepo.findBySeason(season);
}


@RequestMapping("/getByBrand/{brand}")
public List<Product> allProductByBrand(@PathVariable String brand)
{
        return productRepo.findByBrand(brand);
}


@RequestMapping("/getByCategory/{category}")
public List<Product> allProductByCategory(@PathVariable String category)
{
        return productRepo.findByCategory(category);
}


@RequestMapping("/getByPrice/{order}")
public List<Product> allProductByPrice(@PathVariable String order)
{
        if(order.equals("Asc"))
          return productRepo.findAllByOrderByPriceAsc();
        else
          return productRepo.findAllByOrderByPriceDesc();
}


@RequestMapping("/getByColor/{color}")
public List<Product> allProductByColor(@PathVariable String color)
{
        return productRepo.findByColor(color);
```

```
        }


        @RequestMapping("/getLatestProductByDate")

        public List<Product> latestProductByDate()

        {

                return productRepo.findAllByOrderByDateDesc();

        }

}
```

2.User Controller

```
package com.sportyShoes.controller;


import java.util.ArrayList;

import java.util.List;


import org.springframework.beans.factory.annotation.Autowired;

import org.springframework.web.bind.annotation.PathVariable;

import org.springframework.web.bind.annotation.RequestBody;

import org.springframework.web.bind.annotation.RequestMapping;

import org.springframework.web.bind.annotation.RequestMethod;

import org.springframework.web.bind.annotation.RestController;

import com.sportyShoes.model.User;

import com.sportyShoes.service.userRepository;


@RestController

@RequestMapping("/User")

public class UserController

{

        @Autowired

        userRepository repo;


        @RequestMapping("/getAllUser")
```

```java
        public List<User> getUser()

        {

                List<User> users = new ArrayList<User>();

                repo.findAll().forEach(users::add);

                return users;

        }


        @RequestMapping(method = RequestMethod.POST, value="/addUser")

        public String addUser(@RequestBody User user)

        {

                repo.save(user);

                return "User is added";

        }


        @RequestMapping(method = RequestMethod.PUT,
value="/editPass/{email}/{oldpass}/{newpass}")

        public String editPassword(@PathVariable String email,@PathVariable String
oldpass,@PathVariable String newpass)

        {

                User user = repo.findByEmail(email);

                if(user.getPassword().equals(oldpass))

                        user.setPassword(newpass);

                else

                        return "Password is not changed";

                repo.save(user);

                return "Password is changed";

        }

}
```

3.PurchaseReport Controller

package com.sportyShoes.controller;

import java.util.Date;

```java
import java.util.List;

import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.web.bind.annotation.RequestBody;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RequestMethod;
import org.springframework.web.bind.annotation.RestController;
import com.sportyShoes.model.PurchaseReport;
import com.sportyShoes.service.PurchaseReportRepository;

@RestController
@RequestMapping("/PurchaseReport")
public class PurchaseReportController
{

        @Autowired
        PurchaseReportRepository reportRepo;

        @RequestMapping(method = RequestMethod.POST, value="/addPurchaseReport")
        public String addProduct(@RequestBody PurchaseReport report)
        {
                // Date date = new Date();
           // report.setPurchasedate(date);
                reportRepo.save(report);
                return "PurchaseReport is added";
        }

        @RequestMapping("/getAllReportByCategory")
        public List<PurchaseReport> getAllReport()
        {
                return reportRepo.findAllByOrderByCategoryAsc();
        }
```

```java
        @RequestMapping("/getAllReportByDate")
        public List<PurchaseReport> getAllReport2()
        {
                return reportRepo.findAllByOrderByPurchasedateAsc();
        }
}
```

4.ProductRepository

```java
package com.sportyShoes.service;

import java.util.List;
import org.springframework.data.repository.CrudRepository;
import com.sportyShoes.model.Product;

public interface productRepository extends CrudRepository<Product, Integer>
{

        List<Product> findByName(String name);

        List<Product> findAllByOrderByDateDesc();

        List<Product> findAllByOrderByDateAsc();

        List<Product> findBySeason(String season);

        List<Product> findByBrand(String brand);

        List<Product> findByCategory(String category);

        List<Product> findAllByOrderByPriceAsc();
```

```java
        List<Product> findAllByOrderByCategoryAsc();

        List<Product> findAllByOrderByPriceDesc();

        List<Product> findByColor(String color);

        List<Product> findByDate(String date);
}
```

5.UserRepository

```java
package com.sportyShoes.service;

import org.springframework.data.repository.CrudRepository;

import com.sportyShoes.model.User;

public interface userRepository extends CrudRepository<User, Integer>
{
    User findByEmail(String username);
}
```

6.PurchaseReportRepository

```java
package com.sportyShoes.service;

import java.util.List;

import org.springframework.data.repository.CrudRepository;

import com.sportyShoes.model.Product;
import com.sportyShoes.model.PurchaseReport;

public interface PurchaseReportRepository extends CrudRepository<PurchaseReport, Integer>
{
```

```
        List<PurchaseReport> findAllByOrderByCategoryAsc();


        List<PurchaseReport> findAllByOrderByPurchasedateAsc();


}
```

7.Product Model

```
package com.sportyShoes.model;


import java.util.Date;


import javax.persistence.Entity;
import javax.persistence.GeneratedValue;
import javax.persistence.GenerationType;
import javax.persistence.Id;
import javax.persistence.Table;


@Entity
@Table(name="product")
public class Product
{
        @Id
        @GeneratedValue(strategy = GenerationType.AUTO)
        int id;
        String name;
        String season;
        String brand;
        String category;
        String price;
        String color;
        Date date;
```

```java
int discount;
public Product() {
        super();
}
public int getId() {
        return id;
}
public void setProductId(int id) {
        this.id = id;
}
public String getName() {
        return name;
}
public void setName(String name) {
        this.name = name;
}
public String getSeason() {
        return season;
}
public void setSeason(String season) {
        this.season = season;
}
public String getBrand() {
        return brand;
}
public void setBrand(String brand) {
        this.brand = brand;
}
public String getCategory() {
        return category;
}
public void setCategory(String category) {
```

```java
                this.category = category;

        }

        public String getPrice() {

                return price;

        }

        public void setPrice(String price) {

                this.price = price;

        }

        public String getColor() {

                return color;

        }

        public void setColor(String color) {

                this.color = color;

        }

        public Date getDate() {

                return date;

        }

        public void setDate(Date date) {

                this.date = date;

        }

        public int getDiscount() {

                return discount;

        }

        public void setDiscount(int discount) {

                this.discount = discount;

        }

}
```

8.User Model

```java
package com.sportyShoes.model;


import javax.persistence.Entity;
```

```java
import javax.persistence.GeneratedValue;

import javax.persistence.GenerationType;

import javax.persistence.Id;

import javax.persistence.Table;


@Entity

@Table(name="user")

public class User

{

        @Id

        @GeneratedValue(strategy = GenerationType.AUTO)

        int user_id;

        String username;

        String password;

        String email;

        String phone_number;


        public User() {

                super();

        }

        public int getUserId() {

                return user_id;

        }

        public void setUserId(int user_id) {

                this.user_id = user_id;

        }

        public String getUsername() {

                return username;

        }

        public void setUsername(String username) {

                this.username = username;

        }
```

```java
        public String getPassword() {

                return password;

        }

        public void setPassword(String password) {

                this.password = password;

        }

        public String getEmail() {

                return email;

        }

        public void setEmail(String email) {

                this.email = email;

        }

        public String getPhone_number() {

                return phone_number;

        }

        public void setPhone_number(String phone_number) {

                this.phone_number = phone_number;

        }

}
```

9.PurchaseReport Model

```java
package com.sportyShoes.model;


import java.util.Date;


import javax.persistence.Entity;

import javax.persistence.GeneratedValue;

import javax.persistence.GenerationType;

import javax.persistence.Id;

import javax.persistence.Table;


@Entity
```

```java
@Table(name="PurchaseReport")
public class PurchaseReport
{
        @Id
        @GeneratedValue(strategy = GenerationType.AUTO)
    int purchase_id;

        String username;
        String brand;
        String color;
        Date purchasedate;
        String mobile;
        String category;

        public PurchaseReport() {
                super();
        }

        public String getCategory() {
                return category;
        }

        public void setCategory(String category) {
                this.category = category;
        }



        public int getPurchase_id() {
                return purchase_id;
```

```java
        }

        public void setPurchase_id(int purchase_id) {
                this.purchase_id = purchase_id;
        }

        public String getUsername() {
                return username;
        }

        public void setUsername(String username) {
                this.username = username;
        }

        public String getBrand() {
                return brand;
        }

        public void setBrand(String brand) {
                this.brand = brand;
        }

        public String getColor() {
                return color;
        }

        public void setColor(String color) {
                this.color = color;
        }

        public Date getPurchasedate() {
                return purchasedate;
```

```java
        }

        public void setPurchasedate(Date purchasedate) {

                this.purchasedate = purchasedate;

        }


        public String getMobile() {

                return mobile;

        }


        public void setMobile(String mobile) {

                this.mobile = mobile;

        }
}
```