

Code Documentation

```
<!DOCTYPE html>
<html lang="en" xmlns:th="http://www.thymeleaf.org">
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8" />
<title>Insert title here</title>
</head>
<body>

<h2>Admin Login</h2>
<form action="#" th:action="@{/login}" th:object="${user}" method="post">
  <p>Name: <input type="text" th:field="*{name}" /></p>
  <p>Password: <input type="text" th:field="*{password}" /></p>
  <p><input type="submit" th:name="action" value="Submit" /></p>
</form>
<div style="color: red" th:if="${error != null}" th:text="${error}"></div>

</body>
</html>

<!DOCTYPE html>
<html lang="en" xmlns:th="http://www.thymeleaf.org">
<head>
<meta charset="UTF-8">
<title>Insert title here</title>
</head>
<body>
<h1>Welcome to Sporty Shoes</h1>
<h2>Successfully logged in <span th:text="${user.name}"></span></h2>
<h2>Change Password</h2>
<form action="#" th:action="@{/changePW}" th:object="${user}" method="post">
  <p>Name: <input type="text" th:field="*{name}" /></p>
  <p>Password: <input type="text" th:field="*{password}" /></p>
  <p><input type="submit" th:name="action" value="Submit" /></p>
</form>

<div style="color: red" th:if="${message != null}" th:text="${message}"></div>

<h2>List Users</h2>
<form action="#" th:action="@{/listUsers}" method="post">
  <p><input type="submit" th:name="action" value="List Users" /></p>
</form>

<h2>Search User</h2>
<form action="#" th:action="@{/searchUser}" th:object="${user}" method="post">
  <p>Name: <input type="text" th:field="*{searchName}" /></p>
  <p><input type="submit" th:name="action" value="Search User" /></p>
</form>

<a th:href="@{manageProducts}">Manage Products</a><br>
<a th:href="@{Purchase}">Purchases</a>

</body>
</html>
```

```

<!DOCTYPE html>
<html lang="en" xmlns:th="http://www.thymeleaf.org">
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8" />
<title>Insert title here</title>
</head>
<body>

<h1>List Purchases</h1>

<table>
  <tr>
    <th>User</th>
    <th>Product</th>
    <th>Category</th>
    <th>Timestamp</th>
  </tr>
  <tr th:each="purchase : ${purchases}">
    <td><span th:text="${purchase.user}"></span></td>
    <td><span th:text="${purchase.productName}"></span></td>
    <td><span th:text="${purchase.productCategory}"></span></td>
    <td><span th:text="${purchase.timestamp}"></span></td>
  </tr>

</table>
</body>
</html>

```

```

<!DOCTYPE html>
<html lang="en" xmlns:th="http://www.thymeleaf.org">
<head>
<meta charset="UTF-8">
<title>Insert title here</title>
</head>
<body>
<h1>List of Users</h1>
<table>
  <tr th:each="user : ${users}">
    <td><span th:text="${user.name}"></span></td>
  </tr>

</table>

</body>
</html>

```

```

<!DOCTYPE html>
<html lang="en" xmlns:th="http://www.thymeleaf.org">
<head>
<meta charset="UTF-8">
<title>Insert title here</title>
</head>
<body>

<h2>Add Product</h2>
<form action="#" th:action="@{/addProduct}" th:object="${product}"
method="post">
    <p>Name: <input type="text" th:field="*{name}" /></p>
    <p>Category: <input type="text" th:field="*{category}" /></p>
    <p><input type="submit" th:name="action" value="Add Product" /></p>
</form>

<div style="color: red" th:if="${message != null}" th:text="${message}"></div>

<h2>Delete Product</h2>
<form action="#" th:action="@{/delProduct}" th:object="${product}"
method="post">
    <p>Name: <input type="text" th:field="*{name}" /></p>
    <p>Category: <input type="text" th:field="*{category}" /></p>
    <p><input type="submit" th:name="action" value="Delete Product" /></p>
</form>

<div style="color: red" th:if="${message2 != null}" th:text="${message2}"></div>

<a th:href="@{manageProducts}">List Products</a>
<table>
    <tr>
        <th>Product</th>
        <th>Category</th>
    </tr>
    <tr th:each="product : ${products}">
        <td><span th:text="${product.name}"></span></td>
        <td><span th:text="${product.category}"></span></td>
    </tr>
</table>
</body>
</html>

```

```

<!DOCTYPE html>
<html lang="en" xmlns:th="http://www.thymeleaf.org">
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8" />
<title>Insert title here</title>
</head>
<body>

<h1>Search Purchases</h1>

<form action="#" data-th-action="@{/PurchaseByCategory}" data-th-object="$
{categories}" method="post">
    <select id="category" name="category">
        <option value="">Select Category</option>
        <option th:each="category : ${categories}" th:value="${category}"
th:text="${category}"></option>
    </select>
    <button type="submit" name="action" value="searchByCategory">Search
Purchases by Category</button>
</form>

<form action="#" data-th-action="@{/PurchaseByDate}" data-th-object="$
{timestamp}" method="post">
    <select id="timestamp" name="timestamp">
        <option value="">Select Date</option>
        <option th:each="ts : ${timestamp}" th:value="${ts}" th:text="$
{ts}"></option>
    </select>
    <button type="submit" name="action" value="timestamp">Search Purchases by
Date</button>
</form>

</body>
</html>

<!DOCTYPE html>
<html lang="en" xmlns:th="http://www.thymeleaf.org">
<head>
<meta charset="UTF-8">
<title>Insert title here</title>
</head>
<body>
<h1>Search for User</h1>

<div style="color: red" th:if="${userFound != null}" th:text="$
{userFound}"></div>

</body>
</html>

```

```
package com.simplilearn.Phase3_Spring.model;

public class Product {

    private int id;
    private String name;
    private String 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 getCategory() {
        return category;
    }
    public void setCategory(String category) {
        this.category = category;
    }
}
```

```
}
package com.simplilearn.Phase3_Spring.model;

public class User {

    public String name;
    public String password;
    public String searchName;

    public String getName() {
        return name;
    }
    public void setName(String name) {
        this.name = name;
    }
    public String getPassword() {
        return password;
    }
    public void setPassword(String password) {
        this.password = password;
    }
    public String getSearchName() {
        return searchName;
    }
    public void setSearchName(String searchName) {
        this.searchName = searchName;
    }
}
```

```
package com.simplilearn.Phase3_Spring.model;

import java.sql.Date;

public class Purchase {

    private String id;
    private String user;
    private String productName;
    private String productCategory;
    private Date timestamp;

    public String getId() {
        return id;
    }
    public void setId(String id) {
        this.id = id;
    }
    public String getUser() {
        return user;
    }
    public void setUser(String user) {
        this.user = user;
    }
    public String getProductName() {
        return productName;
    }
    public void setProductName(String productName) {
        this.productName = productName;
    }
    public String getProductCategory() {
        return productCategory;
    }
    public void setProductCategory(String productCategory) {
        this.productCategory = productCategory;
    }
    public Date getTimestamp() {
        return timestamp;
    }
    public void setTimestamp(Date timestamp) {
        this.timestamp = timestamp;
    }
}
```

```

package com.simplilearn.Phase3_Spring.dao;

import org.springframework.jdbc.core.JdbcTemplate;
import org.springframework.jdbc.core.PreparedStatementSetter;
import org.springframework.jdbc.core.RowMapper;
import org.springframework.jdbc.core.namedparam.MapSqlParameterSource;
import org.springframework.jdbc.core.namedparam.NamedParameterJdbcTemplate;
import org.springframework.jdbc.core.namedparam.SqlParameterSource;
import org.springframework.stereotype.Repository;

import com.simplilearn.Phase3_Spring.model.Product;
import com.simplilearn.Phase3_Spring.model.Purchase;
import com.simplilearn.Phase3_Spring.model.User;

import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.util.List;

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

@Repository
public class DAO {

    @Autowired
    NamedParameterJdbcTemplate NPjdbcTemplate;

    @Autowired
    JdbcTemplate jdbcTemplate;

    public String authenticate(String user, String password) {
        SqlParameterSource namedParameters = new
        MapSqlParameterSource().addValue("user", user);
        return NPjdbcTemplate.queryForObject("select password from user
        where name=:user", namedParameters, String.class);
    }

    public int changePw(String user, String password) {
        int result = jdbcTemplate.update("update user set password = ? where
        name = ?", password, user);
        return result;
    }

    public List<User> getUsers(){
        return jdbcTemplate.query("select * from user", new RowMapper<User>
        () {

            @Override
            public User mapRow(ResultSet rs, int rowNum) throws
            SQLException {

                User u = new User();
                u.setName(rs.getString(1));
                return u;
            }
        });
    }

    public String searchUser(String user) {
        SqlParameterSource namedParameters = new
        MapSqlParameterSource().addValue("user", user);

```

```

        String us = null;
        try {
            us = NPjdbcTemplate.queryForObject("select name from user
where name=:user", namedParameters, String.class);
        } catch (Exception ex) {
            System.out.println("Empty Resultset");
        }

        if (us != null && !us.isEmpty() && us.equals(user)) {
            return us;
        } else {
            return "not found";
        }
    }

    public List<Product> getProducts() {

        return jdbcTemplate.query("select * from product", new
RowMapper<Product> () {

            @Override
            public Product mapRow(ResultSet rs, int rowNum) throws
SQLException {

                Product p = new Product();
                p.setId(rs.getInt(1));
                p.setName(rs.getString(2));
                p.setCategory(rs.getString(3));
                return p;
            }
        });
    }

    public int setProduct(String name, String category) {

        int result = jdbcTemplate.update("insert into product (name,
category) values(?, ?)", name, category);
        return result;
    }

    public int delProduct(String name, String category) {

        int result = jdbcTemplate.update("delete from product where name =?
and category=?", name, category);
        return result;
    }

    public List<Purchase> searchAllPurchases() {
        return jdbcTemplate.query("select u.name, p.name, p.category, pu.ts
from purchase pu left join (user u, product p) on (pu.name_id = u.id and
pu.product_id = p.id)",
            new RowMapper<Purchase> () {
                @Override
                public Purchase mapRow(ResultSet rs, int rowNum) throws
SQLException {

                    Purchase pu = new Purchase();
                    pu.setUser(rs.getString(1));
                    pu.setProductName(rs.getString(2));
                    pu.setProductCategory(rs.getString(3));
                }
            }
        );
    }

```



```

        pu.setTimestamp(rs.getDate(4));
        return pu;
    }

});

}

    public List<Purchase> searchPurchasesByDate(String date){
        return jdbcTemplate.query("select u.name, p.name, p.category, pu.ts
from purchase pu left join (user u, product p) on (pu.name_id = u.id and
pu.product_id = p.id) where Date(pu.ts)=?" ,
        new PreparedStatementSetter() {

            public void setValues(PreparedStatement preparedStatement)
throws SQLException {
                preparedStatement.setString(1, date);
            }},
        new RowMapper<Purchase> () {

            @Override
            public Purchase mapRow(ResultSet rs, int rowNum) throws
SQLException {

                Purchase pu = new Purchase();
                pu.setUser(rs.getString(1));
                pu.setProductName(rs.getString(2));
                pu.setProductCategory(rs.getString(3));
                pu.setTimestamp(rs.getDate(4));
                return pu;
            }

        });

    }

    public List<Purchase> searchPurchasesByCategory(String category){
        return jdbcTemplate.query("select u.name, p.name, p.category, pu.ts
from purchase pu left join (user u, product p) on (pu.name_id = u.id and
pu.product_id = p.id) where p.category=?",
        new PreparedStatementSetter() {

            public void setValues(PreparedStatement preparedStatement)
throws SQLException {
                preparedStatement.setString(1, category);
            }},
        new RowMapper<Purchase> () {

            @Override
            public Purchase mapRow(ResultSet rs, int rowNum) throws
SQLException {

                Purchase pu = new Purchase();
                pu.setUser(rs.getString(1));
                pu.setProductName(rs.getString(2));
                pu.setProductCategory(rs.getString(3));
                pu.setTimestamp(rs.getDate(4));
                return pu;
            }

        });

    }

}

```

```

package com.simplilearn.Phase3_Spring.controller;

import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Controller;
import org.springframework.ui.Model;
import org.springframework.web.bind.annotation.GetMapping;
import org.springframework.web.bind.annotation.ModelAttribute;
import org.springframework.web.bind.annotation.PostMapping;

import com.simplilearn.Phase3_Spring.dao.DAO;
import com.simplilearn.Phase3_Spring.model.User;

@Controller
public class Authentication {

    @Autowired
    DAO dao;

    @GetMapping("/")
    public String welcome(Model model) {
        model.addAttribute("user", new User());
        return "index";
    }

    @PostMapping("/login")
    public String login(@ModelAttribute("user") User user, Model model) {

        String us = user.getName();
        String pw = user.getPassword();

        String resultpw = dao.authenticate(us, pw);

        model.addAttribute("user", user);

        if(pw.equals(resultpw)) {
            return "welcome";
        }else {
            model.addAttribute("error", "Password invalid");
            return "index";
        }

    }

    @PostMapping("/changePW")
    public String changePW(@ModelAttribute("user") User user, Model model) {

        String us = user.getName();
        String pw = user.getPassword();

        int results = dao.changePw(us, pw);
        System.out.println("Results: " + results);

        if(results == 1) {
            model.addAttribute("message", "Password updated");
        }else {
            model.addAttribute("message", "Password not updated");
        }

        model.addAttribute("user", user);

        return "welcome";
    }
}

```

```

    }
}

package com.simplilearn.Phase3_Spring.controller;

import java.util.List;

import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Controller;
import org.springframework.ui.Model;
import org.springframework.web.bind.annotation.GetMapping;
import org.springframework.web.bind.annotation.ModelAttribute;
import org.springframework.web.bind.annotation.PostMapping;

import com.simplilearn.Phase3_Spring.dao.DAO;
import com.simplilearn.Phase3_Spring.model.Product;
import com.simplilearn.Phase3_Spring.model.User;

@Controller
public class Products {

    @Autowired
    DAO dao;

    @GetMapping("/manageProducts")
    public String listUser(Model model) {

        List<Product> products = dao.getProducts();
        model.addAttribute("products", products);
        model.addAttribute("product", new Product());

        return "Products";
    }

    @PostMapping("/addProduct")
    public String addProduct(@ModelAttribute("product") Product product, Model
model) {

        String name = product.getName();
        String category = product.getCategory();

        int affected = dao.setProduct(name, category);

        if(affected == 1) {
            model.addAttribute("message", "Product added");
        }else {
            model.addAttribute("message", "Product not added");
        }

        return "Products";
    }

    @PostMapping("/delProduct")
    public String delProduct(@ModelAttribute("product") Product product, Model
model) {

        String name = product.getName();
        String category = product.getCategory();

        int affected = dao.delProduct(name, category);

```

```

        if(affected == 1) {
            model.addAttribute("message2", "Product deleted");
        }else {
            model.addAttribute("message2", "Product not deleted");
        }

        return "Products";
    }
}

package com.simplilearn.Phase3_Spring.controller;

import java.util.ArrayList;
import java.util.List;

import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Controller;
import org.springframework.ui.Model;
import org.springframework.web.bind.annotation.GetMapping;
import org.springframework.web.bind.annotation.ModelAttribute;
import org.springframework.web.bind.annotation.PostMapping;

import com.simplilearn.Phase3_Spring.dao.DA0;
import com.simplilearn.Phase3_Spring.model.Purchase;
import com.simplilearn.Phase3_Spring.model.User;

@Controller
public class SearchPurchase {

    @Autowired
    DA0 dao;

    @GetMapping("/Purchase")
    public String listPurchase(Model model) {

        List<Purchase> purchases = dao.searchAllPurchases();

        List<String> productCategory = new ArrayList<String>();
        List<String> timestamp = new ArrayList<String>();

        for(Purchase p : purchases){

            if(!productCategory.contains(p.getProductCategory())) {
                productCategory.add(p.getProductCategory());
            }

            String date = p.getTimestamp().toString();

            if(!timestamp.contains(date)) {
                timestamp.add(date);
            }
        }

        model.addAttribute("categories", productCategory);
        model.addAttribute("timestamp", timestamp);

        return "Purchases";
    }
}

```

```

        @PostMapping("/PurchaseByDate")
        public String PurchaseByDate(@ModelAttribute("timestamp") String ts, Model
model) {

            List<Purchase> purchases = dao.searchPurchasesByDate(ts);

            model.addAttribute("purchases", purchases);

            return "ListPurchases";
        }

        @PostMapping("/PurchaseByCategory")
        public String PurchaseByCategory(@ModelAttribute("category") String
category, Model model) {

            List<Purchase> purchases = dao.searchPurchasesByCategory(category);

            model.addAttribute("purchases", purchases);

            return "ListPurchases";
        }
    }
}

```

```
package com.simplilearn.Phase3_Spring.controller;
```

```
import java.util.List;
```

```
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Controller;
import org.springframework.ui.Model;
import org.springframework.web.bind.annotation.ModelAttribute;
import org.springframework.web.bind.annotation.PostMapping;
```

```
import com.simplilearn.Phase3_Spring.dao.DAO;
import com.simplilearn.Phase3_Spring.model.User;
```

```
@Controller
```

```
public class SearchUsers {
```

```
    @Autowired
    DAO dao;
```

```
    @PostMapping("/listUsers")
    public String listUser(Model model) {
        List<User> users = dao.getUsers();
        model.addAttribute("users", users);

        return "listUser";
    }

```

```
    @PostMapping("/searchUser")
    public String searchUser(@ModelAttribute("user") User user, Model model) {
        String userName = user.getSearchName();
        //System.out.println("Username: " + userName);
        String u = dao.searchUser(userName);

        if(u.equals(userName)) {

```

```
                model.addAttribute("userFound", "User " + user.getSearchName()
+" found");
            }else {
                model.addAttribute("userFound", "User " + user.getSearchName()
+" not found");
            }
            //model.addAttribute("user",user);
            //System.out.println("Searchuser: " + user.getName());
            //System.out.println("userName: " + user.getSearchName());

            return "searchUser";
        }
    }
```