Project: Product Details Portal

My GitHub link :

https://github.com/moulaalihujare/Simplilearn.git

Problem statement:

As a part of developing an ecommerce web application, you have to prototype a form foradding products into the system entered by the users. There is no database involved here, sothe product is just captured and displayed without storing it anywhere.

Development Environment

- Eclipse IDE for Enterprise Java Developers v2019-03 (4.11.0)
- Apache Tomcat Server v9.0
- JRE: OpenJDK Runtime Environment 11.0.2

This lab has ten subsections, namely:

1.1.1 Creating a dynamic web project

1.1.2 Creating an HTML page

1.1.3 Creating a servlet GetHandler.java

1.1.4 Creating a servlet PostHandler.java

1.1.5 Configuring web.xml

1.1.6 Checking for servlet-api.jar

1.1.7 Building the project

1.1.8 Publishing and starting the project

1.1.9 Running the project

1.1.10 Pushing the code to GitHub repositories

Step 1.1.1: Creating a dynamic web project

- Open Eclipse
- Go the **File** menu. Choose **New->Dynamic Web Project**
- Enter the project name as ProductDetailsPortal. Click on **Next**
- Enter nothing in the next screen and click on **Next**
- Check the checkbox **Generate web.xml deployment descriptor** and click on **Finish**
- This will create the project files in the Project Explorer

Step 1.1.2: Creating an JSP page

- In the Project Explorer, expand the project **ServletGetPost**
- Expand **WebContent**. Right click on **WebContent**. Choose **New->JSP File**
- Enter the filename as display.jsp and click on **Finish**

  Enter the following code:

```
<%@ page language="java" contentType="text/html;
charset=ISO-8859-1"
pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Display</title>
</head>
<body bgcolor="Teal">
<h1>Displaying the Product Details</h1>
<hr>
<%= "Product Id : " + session.getAttribute("pid")
%> <br> <br>
<%= "Product Name : " +
session.getAttribute("pname") %> <br> <br>
<%= "Product Price : " +
session.getAttribute("pprice") %>
</body>
</html>
```

Step 1.1.3: Creating an JSP page

- In the Project Explorer, expand the project **ServletGetPost**
- Expand **WebContent**. Right click on **WebContent**. Choose **New->JSP File**
- Enter the filename as product.jsp and click on **Finish**
- Enter the following code:

```
<%@ page language="java" contentType="text/html;
charset=ISO-8859-1"
pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Product Details</title>
</head>
<body bgcolor="Purple">
<h1>Enter Product Details</h1>
<hr>
<form action="App">
<input type="text" name="productId"
placeholder="PRODUCT ID"><br>
<input type="text" name="productName"
placeholder="PRODUCT NAME"><br>
<input type="text" name="productPrice"
placeholder="PRODUCT PRICE"><br>
<input type="submit" value="ENTER">
</form>
</body>
```

```
</html>
```

Step 1.1.4: Creating an Servlet page

- In the Project Explorer, expand the project **ServletGetPost**
- Expand **WebContent**. Right click on **WebContent**. Choose **New->Servlet File**
- Enter the filename as App.java and click on **Finish**
- Enter the following code:

```
package com;
import java.io.IOException;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;
@WebServlet("/app")
public class App extends HttpServlet {
private static final long serialVersionUID =
1L;
protected void doGet(HttpServletRequest
request, HttpServletResponse response) throws
ServletException, IOException {
// TODO Auto-generated method stub
String pId =
request.getParameter("productId");
String pName =
request.getParameter("productName");
String pPrice =
request.getParameter("productPrice");
```

```
HttpSession theSession =
request.getSession();
theSession.setAttribute("pid", pId);
theSession.setAttribute("pname", pName);
theSession.setAttribute("pprice", pPrice);
response.sendRedirect("display.jsp");
}
}
```

Step 1.1.5: Configuring web.xml

- In the Project Explorer, expand **ServletGetPost->WebContent->WEB-INF**
- Double click **web.xml** to open it in the editor
- Enter the following script:

```xml
<?xml version="1.0" encoding="UTF-8"?>

<web-app >
  <display-name>Product details portal</display-name>
  <welcome-file-list>
    <welcome-file>index.html</welcome-file>
    <welcome-file>index.jsp</welcome-file>
    <welcome-file>index.htm</welcome-file>
    <welcome-file>default.html</welcome-file>
    <welcome-file>default.jsp</welcome-file>
    <welcome-file>default.html</welcome-file>
  </welcome-file-list>
  <servlet>
    <description></description>
    <display-name>App</display-name>
    <servlet-name>App</servlet-name>
    <servlet-class>com.App</servlet-class>
  </servlet>
  <servlet-mapping>
    <servlet-name>App</servlet-name>
    <url-pattern>/App</url-pattern>
  </servlet-mapping>
   </web-app>
```

Step 1.1.6: Checking for servlet-api.jar

- Before building the project, we need to add servlet-api.jar to the project
- Servlet-api.jar file is already present in your practice lab. (Refer FSD: Lab Guide - Phase 2)
- To add it to the project, follow the below mentioned steps:
  - In the Project Explorer, right click on **ProductDetailsPortal** and choose **Properties**
  - Select **Java Build Path** from the options on the left

- Click on **Libraries** tab on the right
- Under **ClassPath,** expand the node that says **Apache Tomcat**
- If there is an existing entry for **servlet-api.jar,** then click on **Cancel** and exit the window
- If it is not there, then click on **Classpath** entry and click on **Add External JARs** button on the right
- From the file list, select **servlet-api.jar** file and click **Ok**
- Click on **Apply and Close**

Step 1.1.7: Building the project

- From the **Project** menu at the top, click on **Build**
- If any compile errors are shown, fix them as required

Step 1.1.8: Publishing and starting the project

- If you do not see the **Servers** tab near the bottom of the IDE, go to the Window menu and click **Show View->Servers**
- Right click on the **Server** entry and choose **Add and Remove**
- Click the **Add** button to move **ServletGetPost** from the **Available** list to the **Configured** List
- Click **Finish**
- Right click on the **Server** entry and click on **Publish**
- Right click on the **Server** entry and click on **Start**
- This will start the server

Step 1.1.9: Running the project

- To run the project, open a web browser and type: **http://localhost:8080/ServletGetPost**

Step 1.1.10: Pushing the code to your GitHub repositories

- Open your command prompt and navigate to the folder where you have created your files.

  cd <folder path>

- Initialize your repository using the following command:

  git init

- Add all the files to your git repository using the following command:

  git add .

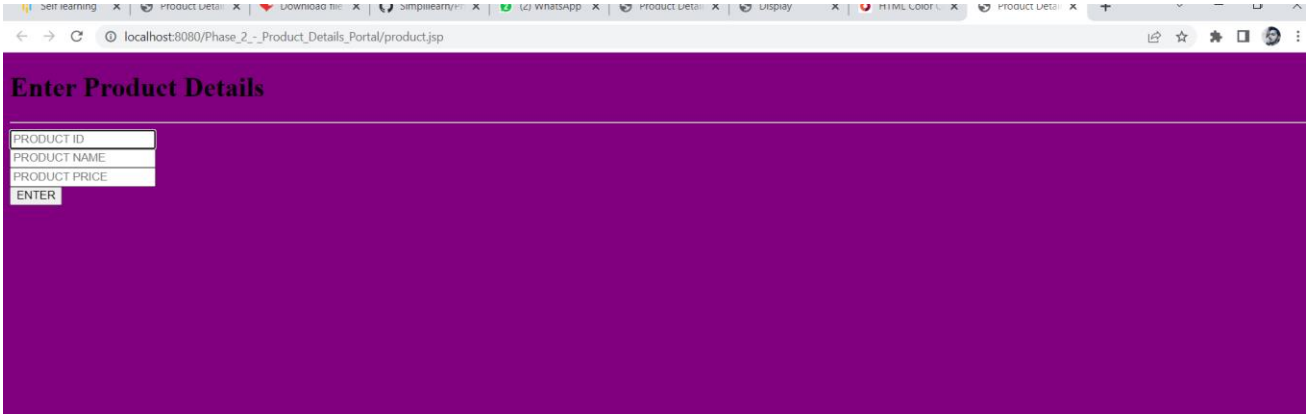
- Commit the changes using the following command:

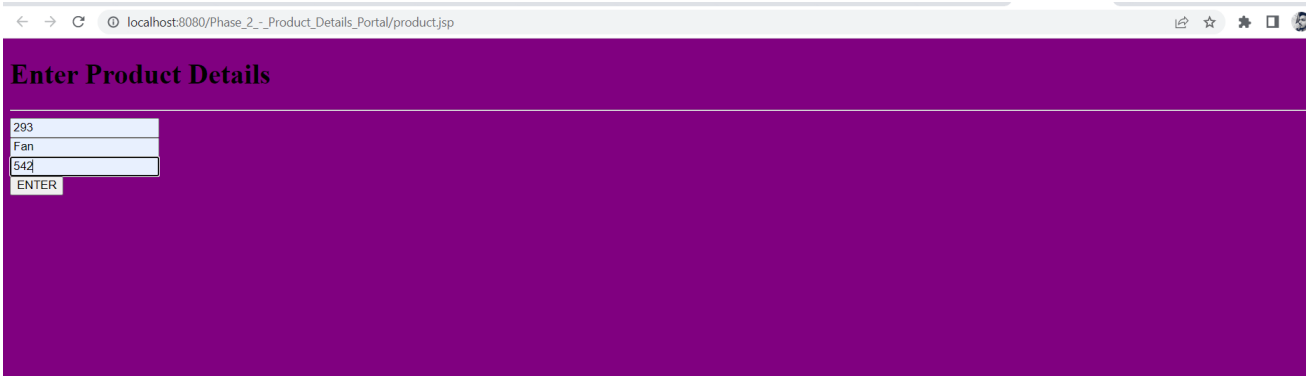
  git commit . -m “Changes have been committed.”

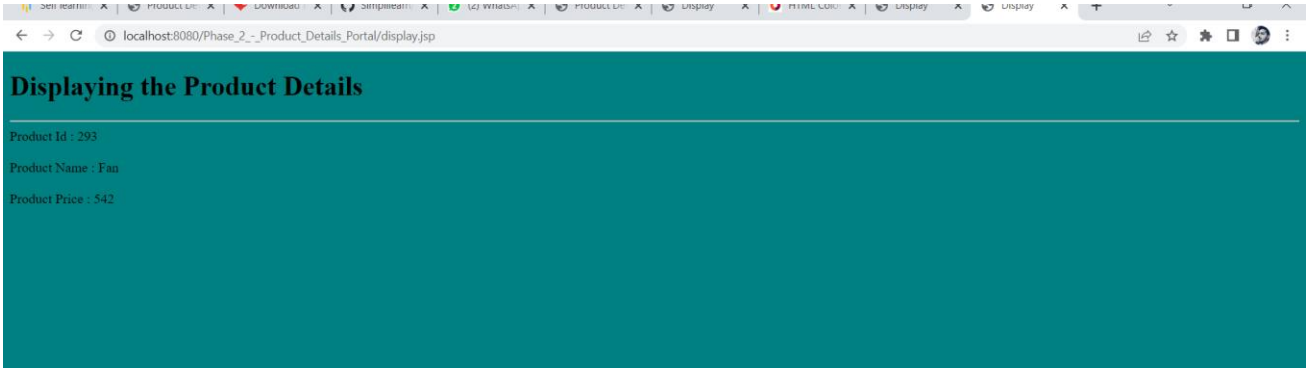
- Push the files to the folder you initially created using the following command.

  git push -u origin master

  <u>Output:</u>






localhost:8080/Phase_2_-_Product_Details_Portal/display.jsp
Displaying the Product Details
Product Id : 293
Product Name : Fan
Product Price : 542