Retrieving the Product Details Using the Product ID

DESCRIPTION

Project objective:

Create a servlet-based application that shows a form to enter a product ID. The product ID is then validated, and product details are retrieved from the database and displayed to the user. You need to create a product table in MySQL and prepopulate it with data. Use JDBC to do all database processing.

Background of the problem statement:

As a part of developing an e-commerce web application, the admin backend requires a module that can retrieve product information based on the product ID.

You must use the following:

- Eclipse as the IDE

- Apache Tomcat as the web server

- MySQL Connector for JDBC functionality

Following requirements should be met:

- Create an HTML page to take in a product ID

- Set up JDBC to work with the application

- Create a servlet that will take the product ID and use JDBC to query the database for the product

- If the product is found, the servlet will display the product details, otherwise it will show an error message

- Document the step-by-step process involved in completing this task.

SOURCE CODE

login.java:-

package com.anand.training;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

```java
import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.Statement;

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;


//@SuppressWarnings({ "unused", "serial" })
@WebServlet("/login")
public class Login extends HttpServlet{

        protected void doGet(HttpServletRequest request, HttpServletResponse response)
throws ServletException, IOException {

                String url="jdbc:mysql://localhost:3306/mphasis_practice";

                String uname="root";

                String pass="";

                response.setContentType("text/html");

                String pId = request.getParameter("Product_Id");

                PrintWriter out = response.getWriter();

                String query="SELECT * FROM `product` WHERE ProductId=?";

                try {

        Class.forName("com.mysql.cj.jdbc.Driver");

        Connection dbCon = DriverManager.getConnection(url, uname, pass);

        PreparedStatement st=  dbCon.prepareStatement(query);

        st.setString(1, pId);

        ResultSet rs =st.executeQuery();

        out.print("<h1>Displaying the Product Details...</h1>");

                        out.print("<table border='1'><tr><th>Product Id</th><th>Product
Name</th><th>Product Price</th></tr>");
```

```java
            while(rs.next()) {

                    out.print("<tr><td>");

                    out.println(rs.getInt(1));

                    out.print("</td>");

                    out.print("<td>");

                    out.print(rs.getString(2));

                    out.print("</td>");

                    out.print("<td>");

                    out.print(rs.getString(3));

                    out.print("</td>");

                    out.print("</tr>");

                        }

            }

            catch(Exception e){

                    System.out.println("Some Issue : "+ e.getMessage());

            }

            out.print("</table>");

        }

}
```

Index.html:-

```html
<!DOCTYPE html>

<html>

<head>

<meta charset="UTF-8">

<title>Product Id</title>

</head>

<body>

<h1>Product Id</h1>

<hr>

<form action="login">
```

```html
<input type="text" name="Product_Id" placeholder="Product_Id"><br>
<input type="submit" value="SEARCH">
</form>
</body>
</html>
```