PRODUCT DETAILS PORTAL

DESCRIPTION

Create a servlet-based web application that shows a form to enter product details. Capture the details in a servlet and then display the data that was entered.

Background of the problem statement:

As a part of developing an ecommerce web application, you have to prototype a form for adding products into the system entered by the users. There is no database involved here, so

the product is just captured and displayed without storing it anywhere.

You must use the following:

- Eclipse as the IDE
- Apache Tomcat as the web server
- JSP pages for the front end
- Servlets for backend processing

Following requirements should be met:

- There will be a Product class to store the details of the product
- The servlet will put the form data into the Product class and store it in the session
- A second JSP will take the product info from the session and display it to the user
- The step-by-step process involved in completing this task should be documented
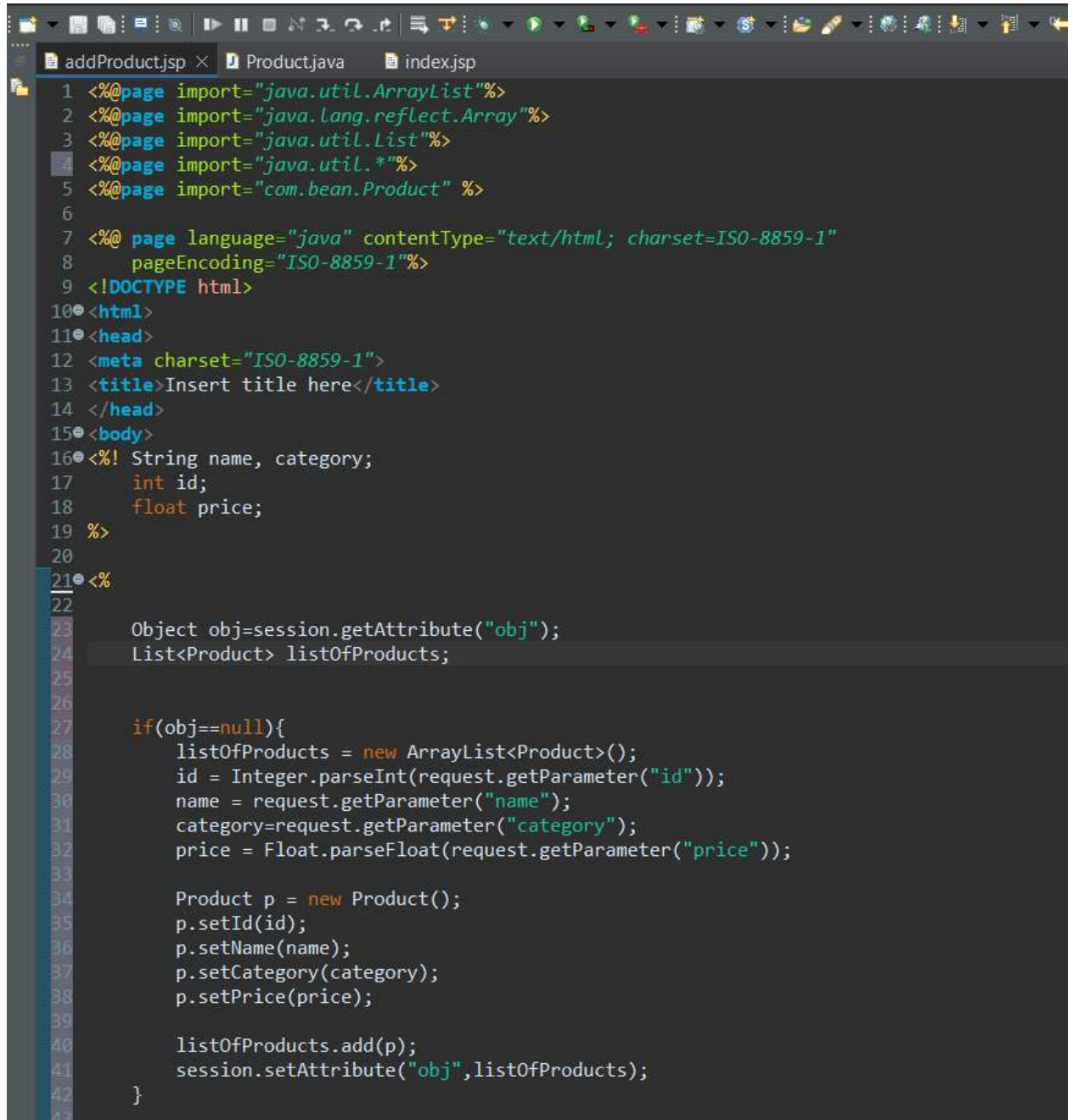
DEMO

1. Create a Java Bean Class with the name Product and package as com and enter the
   following code into that.

```java
addProduct.jsp    Product.java ×    index.jsp
1  package com.bean;
2
3  public class Product {
4      private int id;
5      private String name;
6      private String category;
7      private float price;
8      public int getId() {
9          return id;
10     }
11     public void setId(int id) {
12         this.id = id;
13     }
14     public String getName() {
15         return name;
16     }
17     public void setName(String name) {
18         this.name = name;
19     }
20     public String getCategory() {
21         return category;
22     }
23     public void setCategory(String category) {
24         this.category = category;
25     }
26     public float getPrice() {
27         return price;
28     }
29     public void setPrice(float price) {
30         this.price = price;
31     }
32     public String toString() {
33         return "Product [pid=" + id + ", pname=" + name + " ,category=" + category +", price=" + price + "]";
34     }
35 }
36
```

2. Create an index.jsp page for the registration form. Add the following contents in the file:

```jsp
1  <%@ page language="java" contentType="text/html; charset=ISO-8859-1"
2      pageEncoding="ISO-8859-1"%>
3  <!DOCTYPE html>
4  <html>
5  <head>
6  <meta charset="ISO-8859-1">
7  <title>Insert title here</title>
8  </head>
9  <body>
10     <form action="addProduct.jsp" method="post">
11         <label>Product ID</label>
12         <input type="id" name="id">
13
14         <br /><br>
15
16         <label>Product Name</label>
17         <input type="name" name="name">
18
19         <br /> <br>
20
21         <label for="category">Category</label>
22
23         <select name="category" id="category">
24          <option value="Food">Food</option>
25         <option value="Home Needs">Home Appliances</option>
26         <option value="Health Care">Health Care</option>
27         <option value="Electronics">Electronics</option>
28         <option value="Other">Other</option>
29         </select>
30
31         <br /><br>
32
33         <label>Price</label>
34         <input type="price" name="price">
35
36         <br /> <br>
37
38         <input type="Submit" name="Submit">
39         <input type="Reset" name="Reset">
40     </form>
41 </body>
42 </html>
```

3. For storing the product details in the website, create another JSP file and name it as addProduct.jsp

```jsp
1  <%@page import="java.util.ArrayList"%>
2  <%@page import="java.lang.reflect.Array"%>
3  <%@page import="java.util.List"%>
4  <%@page import="java.util.*"%>
5  <%@page import="com.bean.Product" %>
6
7  <%@ page language="java" contentType="text/html; charset=ISO-8859-1"
8      pageEncoding="ISO-8859-1"%>
9  <!DOCTYPE html>
10 <html>
11 <head>
12 <meta charset="ISO-8859-1">
13 <title>Insert title here</title>
14 </head>
15 <body>
16 <%! String name, category;
17      int id;
18      float price;
19 %>
20
21 <%
22
23      Object obj=session.getAttribute("obj");
24      List<Product> listOfProducts;
25
26
27      if(obj==null){
28          listOfProducts = new ArrayList<Product>();
29          id = Integer.parseInt(request.getParameter("id"));
30          name = request.getParameter("name");
31          category=request.getParameter("category");
32          price = Float.parseFloat(request.getParameter("price"));
33
34          Product p = new Product();
35          p.setId(id);
36          p.setName(name);
37          p.setCategory(category);
38          p.setPrice(price);
39
40          listOfProducts.add(p);
41          session.setAttribute("obj",listOfProducts);
42      }
43
```

```
        else{

            id = Integer.parseInt(request.getParameter("id"));
            name = request.getParameter("name");
            category=request.getParameter("category");
            price = Float.parseFloat(request.getParameter("price"));

            Product p = new Product();
            p.setId(id);
            p.setName(name);
            p.setCategory(category);
            p.setPrice(price);

            listOfProducts = (List<Product>)session.getAttribute("obj");
            listOfProducts.add(p);
        }

        Iterator<Product> li=listOfProducts.iterator();
        while(li.hasNext()) {
            Product p =li.next();
            out.println("Product ID is: "+p.getId()+" Product Name is: "+p.getName()+" Category is: "+p.getCategory()+" Price is: "+p.getPrice()+"<br />");
        }

%>
<%@include file="index.jsp" %>
</body>
</html>
```

5. Following is the output

Product ID is: 123 Product Name is: Sofa Category is: Home Needs Price is: 230000.0
Product ID is: 911 Product Name is: Chocolate Category is: Food Price is: 45.0
Product ID is: 789 Product Name is: IPhone Category is: Electronics Price is: 1200000.0
Product ID is: 666 Product Name is: Crocin Category is: Health Care Price is: 45.0
Product ID is: 923 Product Name is: Dog Category is: Other Price is: 2300.0

Product ID [   ]

Product Name [   ]

Category [Food   ∨]

Price [   ]

[Submit]   [Reset]