

Advanced Java & J2EE

Part A

7. Write a JSP Program to design a shopping cart to add items, remove item and to display items from the cart using Sessions

Step 1:

File ->New Project->Java with Ant->Java We->Web Application-> Next->Project Name (ShoppingCart)->Next-> Server(Apache Tomcat or TomEE)Nex->Finish.

Step 2:

After creating the project go to the Web Pages

Web Pages->Right click->New->JSP..->File name(ShoppingDemo.jsp)-> Finish.

Step 3:

After creating the jsp file go to the Web Pages

Web Pages->Right click->New->Floder->Floder Name(images)->finish.

[Copy the images form download then Click the Folder(images)-> Right click->Paste]

File Name : ShoppingDemo.jsp

```
<%@page import="com.Item"%>
```

```
<%@page import="java.util.ArrayList"%>
```

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
```

```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
```

```
    <title>Shopping</title>
```

</head>

<body>

<h1>Online Shopping</h1>

<%

ArrayList<Item> cart;

if (request.getSession().getAttribute("cart") == null) {

 cart = new ArrayList<Item>();

 request.getSession().setAttribute("cart", cart);

} else {

 cart = (ArrayList<Item>) request.getSession().getAttribute("cart");

}

%>

<table width="100%" cellpadding="20" cellspacing="0" border="0" align="center">

<tr align="center" valign="top">

<td width="25%">

<form method="POST">

<h4>Coke</h4>

<input type="hidden" value="coke" name="name">

Price: Rs. 35

<input type="hidden" value="35" name="price">

Quantity:

```

        <input type="number" name="qty" value="1" style="width:40px">

        <br>

        <input type="submit" name="addBtn" value="Add">

    </form>

</td>

<td>

    <form method="POST">

        

        <h4>Mountain Dew</h4>

        <input type="hidden" value="Dew" name="name">

        Price: Rs. 34

        <input type="hidden" value="34" name="price">

        <br>

        Quantity:

        <input type="number" name="qty" value="1" style="width:40px">

        <br>

        <input type="submit" name="addBtn" value="Add">

    </form>

</td>

<td>

    <form method="POST">

        

        <h4>Pepsi</h4>

```

<input type="hidden" value="Pepsi" name="name">

Price: Rs. 38

<input type="hidden" value="38" name="price">

Quantity:

<input type="number" name="qty" value="1" style="width:40px">

<input type="submit" name="addBtn" value="Add">

</form>

</td>

<td>

<form method="POST">

<h4>Thums Up</h4>

<input type="hidden" value="Thumpsup" name="name">

Price: Rs. 39

<input type="hidden" value="39" name="price">

Quantity:

<input type="number" name="qty" value="1" style="width:40px">

<input type="submit" name="addBtn" value="Add">

```

        </form>

    </td>

</tr>

</table>

<%

    if (request.getParameter("removeBtn") != null) {

        int index = Integer.parseInt(request.getParameter("ino"));

        cart.remove(index);

        out.println("<h4 style='color:red'>Item is removed</h4>");

    }

    if (request.getParameter("addBtn") != null) {

        int qty = Integer.parseInt(request.getParameter("qty"));

        if (qty < 0) {

            out.println("<h4 style='color:red'>Please Enter a positive value for Quantity</h4>");

        } else {

            String name = request.getParameter("name");

            boolean ItemFound = false;

            for (int i = 0; i < cart.size(); i++) {

                Item item = cart.get(i);

                if (item.getName().equals(name)) {

                    item.setQty(item.getQty() + qty);

                    out.println("<h4 style='color:blue'>Item: " + name + " added to the cart</h4>");

```

```
        ItemFound = true;

        break;
    }
}

if (!ItemFound) {

    double price = Double.parseDouble(request.getParameter("price"));

    Item itm = new Item(name, qty, price);

    cart.add(itm);

    out.println("<h4 style='color:blue'>Item: " + name + " added to the cart</h4>");

}

}
```

```
if (cart.size() > 0) {

%>

<h2>Cart Details</h2>

<table border="2">

    <tr>

        <th>Item Name</th>

        <th>Quantity</th>

        <th>Unit Price</th>

        <th>Total</th>

        <th>Action</th>
```

```

</tr>

<%

    for (int i = 0; i < cart.size(); i++) {

        Item item = cart.get(i);

    %>

<tr>

    <td><%= item.getName() %></td>

    <td><%= item.getQty() %></td>

    <td><%= item.getPrice() %></td>

    <td><%= item.getQty() * item.getPrice() %></td>

    <td>

        <form method="POST">

            <input type="hidden" value="<%= i %>" name="ino">

            <input type="submit" value="remove" name="removeBtn">

        </form>

    </td>

</tr>

<% } %>

</table>

<% } %>

</body>

</html>

```

Step 4:

After the jsp file go to Source package

Source package->Right Click-> New-> Java Class-> Class Name(Item)->Package(com)->Finish.

File Name: Item.java

```
package com;
```

```
import java.io.Serializable;
```

```
public class Item implements Serializable{
```

```
    private String name;
```

```
    private int qty;
```

```
    private double price;
```

// After this , Rightclick->Insert code->Constructor -> Select all Checkboxes-> Generate

This will generate the code in your file. Alternatively, you can type the code manually below

```
public Item(String name, int qty, double price) {
```

```
    this.name = name;
```

```
    this.qty = qty;
```

```
    this.price = price;
```

```
}
```

// After this ,Rightclick->Insert code->Getters and setters-> Select all Checkboxes->Generate.

This will generate the code in your file. Alternatively, you can type the code manually below

```
public String getName() {
```

```
    return name;
```



```
}
```

```
public void setName(String name) {
```

```
    this.name = name;
```

```
}
```

```
public int getQty() {
```

```
    return qty;
```

```
}
```

```
public void setQty(int qty) {
```

```
    this.qty = qty;
```

```
}
```

```
public double getPrice() {
```

```
    return price;
```

```
}
```

```
public void setPrice(double price) {
```

```
    this.price = price;
```

```
}
```

```
}
```