

SSN COLLEGE OF ENGINEERING, KALAVAKKAM

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Internet Programming Lab – CS8661

Programming Assignment 13 - Online Shopping Application using Servlet and Cookies

Write an online shopping application using Servlet and Cookie session tracking mechanism. Store the information of two users in the configuration file web.xml as follows:

```
<web-app>
  <init-param>
    <param-name>User1</param-name>
    <param-value>Praba</param-value>
  </init-param>
  <init-param>
    <param-name>User2</param-name>
    <param-value>Sharan</param-value>
  </init-param>
</web-app>
```

Realize shopping cart for each user to store their items. The following figure shows the online ordering of the food items in the Pizza Corner. 'Select Category' shows the various food items. Left column shows the description of the food items, cost, quantity and a '+' to add item to the cart. 'Your Cart' shows that the items selected at particular item with quantity. In addition, it also shows the total cost of the items in the Cart. Update is used to calculate the current cost if there is any change in the quantity and into mark is used to delete an item from the cart. Simulate the scenario with different web pages using Servlet and Cookies.

<p>Currently showing veg items from "Salads &amp; Pastas" category Click on category list on the right to see other items</p> <div><div><b>Zesty Mushroom &amp; Tomato Pasta</b> Pasta cooked to perfection tossed with mushrooms &amp; rich flavoured tomato concasse oven baked with a cheesy touch.</div><div>Rs 99</div><div>1</div><div>+</div></div> <div><div><b>Hawaiian Veg Salad</b> A delicious and crunchy combination of pineapple, cucumbers, tomatoes, green peppers, lettuce parsley and croutons.</div><div>Rs 99</div><div>1</div><div>+</div></div> <div><div><b>Corn &amp; Spinach Pasta</b> A healthy portion of pasta with sautered spinach mix, sweet corn, parsley &amp; mozzarella cheese.</div><div>Rs 119</div><div>1</div><div>+</div></div> <div><div><b>Farm Fresh Salad</b> A delightful blend of fresh crunchy vegetables mixed with pasta &amp; cottage cheese, garnished with parsley and croutons.</div><div>Rs 89</div><div>1</div><div>+</div></div>	<div><b>Select Category</b><div>VEGNON VEG</div><ul style="list-style-type: none"><li>- Appetizers</li><li>- Beverages</li><li>- Conizza</li><li>- Desserts</li><li>- My Pizza Combo</li><li>- Pizza-Classic</li><li>- Pizza-Exotic</li><li>- Pizza-Flavours Of India</li><li>- Pizza-Supreme</li><li>- <u>Salads &amp; Pastas</u></li><li>- Sandwizza</li></ul></div> <div><b>Your Cart</b><div>Restaurant : Pizza Corner</div><div>(V) Garlic Bread1update×</div><div>(V) Veg Nuggets1update×</div><div>(V) Molten Lava Cake1update×</div><div>Subtotal: Rs 183</div><div>Taxes: Rs 18.21</div><div>Approximate Container Charges: Rs 0</div><div>Total: Rs 201.21</div></div>	<div><b>ORDER NOW</b> <b>1860 425 1861</b></div>
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## **CODE:**

### **Index.html:**

```
<html>
<body>
  <h1 style="text-align:center;">WELCOME TO PIZZA CORNER</h1>
  <form method="get" action ="menu">
    <fieldset>
      <legend>Login</legend>
      <label >Username:</label>
      <input type = text name="uname"><br><br>
      <label >Password:</label>
      <input type = text name="password"><br/><br/>
      <input type ="submit" value=Login>
    </fieldset>
  </form>
</body>
</html>
```

### **Web.xml:**

```
<web-app>
  <servlet>
    <servlet-name>loginservlet</servlet-name>
    <servlet-class>login</servlet-class>
  </servlet>
  <servlet-mapping>
    <servlet-name>loginservlet</servlet-name>
    <url-pattern>/menu</url-pattern>
  </servlet-mapping>
  <servlet>
    <servlet-name>menuservlet</servlet-name>
    <servlet-class>viewmenu</servlet-class>
  </servlet>
  <servlet-mapping>
    <servlet-name>menuservlet</servlet-name>
    <url-pattern>/viewmenu</url-pattern>
  </servlet-mapping>
  <servlet>
    <servlet-name>cartervlet</servlet-name>
    <servlet-class>displaycart</servlet-class>
  </servlet>
  <servlet-mapping>
    <servlet-name>cartervlet</servlet-name>
    <url-pattern>/displaycart</url-pattern>
  </servlet-mapping>
  <servlet>
    <servlet-name>editservlet</servlet-name>
    <servlet-class>editcart</servlet-class>
  </servlet>
```

```

<servlet-mapping>
  <servlet-name>editServlet</servlet-name>
  <url-pattern>/editcart</url-pattern>
</servlet-mapping>
<servlet>
  <servlet-name>billServlet</servlet-name>
  <servlet-class>displaybill</servlet-class>
</servlet>
<servlet-mapping>
  <servlet-name>billServlet</servlet-name>
  <url-pattern>/displaybill</url-pattern>
</servlet-mapping>
</web-app>

```

### **Login.java:**

```

import javax.servlet.http.*;
import javax.servlet.*;
import java.io.*;
public class login extends HttpServlet
{
    public void doGet(HttpServletRequest req,HttpServletResponse res)throws
ServletException,IOException
    {
        res.setContentType("text/html");
        String uname=req.getParameter("uname");
        String pass=req.getParameter("password");
        if( (uname.equals("Vaishu") && pass.equals("vaish")) || (uname.equals("Abi") &&
pass.equals("abitha"))) )
        {
            req.getRequestDispatcher("viewmenu").forward(req,res);
        }
        else
        {
            req.getRequestDispatcher("error.html").forward(req,res);
        }
    }
}

```

### **Viewmenu.java:**

```

import javax.servlet.http.*;
import javax.servlet.*;
import java.io.*;
import java.sql.*;

public class viewmenu extends HttpServlet{

```

```

public void doGet(HttpServletRequest req, HttpServletResponse res) throws
ServletException, IOException{
    res.setContentType("text/html");
    String uname=req.getParameter("uname");
    PrintWriter pw=res.getWriter();
    String url="jdbc:mysql://localhost:3306/ip";
    String user="root";
    String pass="vaishu";
    pw.println("<h2>Welcome,"+uname+"</h2><br>");
    try
    {
        Class.forName("com.mysql.jdbc.Driver");
        Connection con=DriverManager.getConnection(url,user,pass);
        Statement stmt;
        int i=1;
        pw.println("<b>Our Menu</b><br>");
        stmt=con.createStatement();
        ResultSet rs=stmt.executeQuery("select * from products");
        pw.println("<form method =get action=displaycart>");
        pw.println("<table border=1 cellpadding=2 cellspacing=1>");
        pw.println("<tr><th>Product
ID</th><th>Item</th><th>Description</th><th>Price</th><th>Quantity</th></tr>");
        while(rs.next())
        {

            pw.println("<tr><td>"+rs.getInt(1)+"</td><td>"+rs.getString(2)+"</td><td>"+rs.getStri
ng(3)+"</td><td>"+rs.getInt(4)+"</td>");
            String t=Integer.toString(i);
            pw.println("<td><input type=text value=0 name="+t+"></td></tr>");
            i++;

        }
        pw.println("</table><br/><br/>");

        pw.println("<input type=submit value=ViewCart>");
        pw.println("</form>");

        con.close();
    }
    catch(Exception e)
    {
        System.out.println("ex : "+e);
    }
}

```

### Displaycart.java:

```
import javax.servlet.http.*;
import javax.servlet.*;
import java.io.*;
import java.sql.*;

public class displaycart extends HttpServlet{
    public void doGet(HttpServletRequest req,HttpServletResponse res)throws
        ServletException,IOException{
        res.setContentType("text/html");
        PrintWriter pw=res.getWriter();
        String url="jdbc:mysql://localhost:3306/ip";
        String user="root";
        String pass="vaishu";
        try
        {
            Connection con=DriverManager.getConnection(url,user,pass);
            Statement stmt;
            String qt;
            int i=1,j=0,qty,price=0;
            double nprice=0,taxes;
            pw.println("<h1>My Cart</h1>");
            stmt=con.createStatement();
            ResultSet rs=stmt.executeQuery("select * from products");

            Cookie ck;

            pw.println("<table border=1 cellpadding=2 cellspacing=1>");
            pw.println("<tr><th>Product  
ID</th><th>Item</th><th>Description</th><th>Price</th><th>Quantity</th></tr>");

            while(rs.next())
            {
                qt=req.getParameter(Integer.toString(i));
                qty=Integer.parseInt(qt);
                ck=new Cookie(Integer.toString(i),qt);
                res.addCookie(ck);
                j++;
                if(qty!=0)

                pw.println("<tr><td>" +rs.getInt(1)+"</td><td>" +rs.getString(2)+"</td><td>" +rs.getStri
                    ng(3)+"</td><td>" +rs.getInt(4)+"</td><td>" +qt+"</td></tr>");
                price+=rs.getInt(4)*qty;
                i++;
            }
            pw.println("</table><br/><br/>");
```

```

pw.println("<form action=editcart>");
pw.println("<input type=submit value=EditCart>");
pw.println("</form><br/><br/>");

taxes=0.1*price;
nprice=price+taxes;

Cookie c1= new Cookie("Price",Integer.toString(price));
Cookie c2= new Cookie("Taxes",Double.toString(taxes));
Cookie c3= new Cookie("Totalprice",Double.toString(nprice));
res.addCookie(c1);
res.addCookie(c2);
res.addCookie(c3);

pw.println("<form action=displaybill>");
pw.println("<input type=submit value=viewbill>");
pw.println("</form>");

con.close();

}
catch(Exception e)
{
    System.out.println(e);
}
}
}
}

```

### **Editcart.java:**

```

import javax.servlet.http.*;
import javax.servlet.*;
import java.io.*;
import java.sql.*;

public class editcart extends HttpServlet{
    public void doGet(HttpServletRequest req,HttpServletResponse res)throws
    ServletException,IOException{
        res.setContentType("text/html");
        Cookie cookie = null;
        Cookie[] cookies = null;
        cookies = req.getCookies();
        PrintWriter pw=res.getWriter();
        String url="jdbc:mysql://localhost:3306/ip";
        String user="root";
    }
}

```

```

String pass="vaishu";
try
{
Connection con=DriverManager.getConnection(url,user,pass);
Statement stmt;
int i=1,t=1,j;
pw.println("<b>MODIFY CART</b>");
stmt=con.createStatement();
ResultSet rs=stmt.executeQuery("select * from products");
pw.println("<form method=get action=displaycart>");
pw.println("<table border=1 cellpadding=2 cellspacing=1>");
pw.println("<tr><th>Product
ID</th><th>Item</th><th>Description</th><th>Price</th><th>Quantity</th></tr>");
while(rs.next())
{

pw.println("<tr><td>" +rs.getInt(1)+"</td><td>" +rs.getString(2)+"</td><td>" +rs.getStri
ng(3)+"</td><td>" +rs.getInt(4)+"</td>");
    for(j=0;j<cookies.length;j++)
    {
        if(cookies[j].getName().equals(Integer.toString(t)))
        {
            pw.println("<td><input type=text value="+cookies[j].getValue()+
name="+t+"></td></tr>");
            break;
        }
    }
    t++;
    i++;
}

pw.println("</table><br/><br/>");

pw.println("<input type=submit value=ViewCart>");
pw.println("</form>");

con.close();
}
catch(Exception e)
{
    System.out.println(e);
}
}
}

```

## Displaybill.java:

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;

public class displaybill extends HttpServlet {

    public void doGet(HttpServletRequest req, HttpServletResponse res)
        throws ServletException, IOException {
        Cookie cookie = null;
        Cookie[] cookies = null;


        cookies = req.getCookies();

        PrintWriter pw=res.getWriter();
        pw.println("<b>TOTAL AMOUNT TO BE PAID:</b>");
        pw.println("<br/><br/>");
        for (int i = 0; i < cookies.length; i++) {
            cookie = cookies[i];
            if(cookie.getName().equals("Price"))
            {   pw.println("<b>Price:</b>" + cookie.getValue( ));
                pw.println("<br/><br/>");}
            else if(cookie.getName().equals("Taxes"))
            {   pw.println("<b>Taxes:</b>" + cookie.getValue( ));
                pw.println("<br/><br/>");}
            else if(cookie.getName().equals("Totalprice"))
            {   pw.println("<b>Total Price:</b>" + cookie.getValue( ));
                pw.println("<br/><br/>");}

        }
        pw.println("<br/><br/>");
        pw.println("<b>THANK YOU FOR SHOPPING!!!!</b>");
    }
}
```



**OUTPUT:**



The screenshot shows a web browser window with the address bar displaying 'localhost:8080/ShoppingApp/'. The page has a light gray header with navigation icons (back, forward, refresh) and a search icon. The main content area features a large, bold, black serif font heading 'WELCOME TO PIZZA CORNER'. Below the heading is a login form with a white background and a thin black border. The form contains a 'Login' label, a 'Username:' label followed by a text input field containing 'Vaishu', a 'Password:' label followed by a text input field containing 'vaishu', and a 'Login' button.

← → ↻ ⓘ localhost:8080/ShoppingApp/ ☆ 📷 ⚙️ ⏸ Paused ⋮

# WELCOME TO PIZZA CORNER

Login

Username:

Password:

Login

# Welcome, Vaishu

## Our Menu

Product ID	Item	Description	Price	Quantity
1	Veg pizza	Vegetable pizza	100	0
3	Zesty Mushroom pizza	Rich mushroom, oven baked pizza	170	0
2	Cheese pizza	Mozzarella Cheese pizza	140	0
4	Hawaii veg pizza	Delicious and crunchy combo	140	0

[ViewCart](#)

← → ↻ ⓘ localhost:8080/ShoppingApp/menu?uname=Vaishu&password=vaish

# Welcome, Vaishu

## Our Menu

Product ID	Item	Description	Price	Quantity
1	Veg pizza	Vegetable pizza	100	1
3	Zesty Mushroom pizza	Rich mushroom, oven baked pizza	170	2
2	Cheese pizza	Mozzarella Cheese pizza	140	5
4	Hawaii veg pizza	Delicious and crunchy combo	140	0

[ViewCart](#)

---

# My Cart

Product ID	Item	Description	Price	Quantity
1	Veg pizza	Vegetable pizza	100	1
3	Zesty Mushroom pizza	Rich mushroom, oven baked pizza	170	2
2	Cheese pizza	Mozzarella Cheese pizza	140	5

EditCart

viewbill

---

## MODIFY CART

Product ID	Item	Description	Price	Quantity
1	Veg pizza	Vegetable pizza	100	<input type="text" value="1"/>
3	Zesty Mushroom pizza	Rich mushroom, oven baked pizza	170	<input type="text" value="2"/>
2	Cheese pizza	Mozzarella Cheese pizza	140	<input type="text" value="5"/>
4	Hawaii veg pizza	Delicious and crunchy combo	140	<input type="text" value="1"/>

ViewCart

---

## My Cart

Product ID	Item	Description	Price	Quantity
1	Veg pizza	Vegetable pizza	100	1
3	Zesty Mushroom pizza	Rich mushroom, oven baked pizza	170	2
2	Cheese pizza	Mozzarella Cheese pizza	140	5
4	Hawaii veg pizza	Delicious and crunchy combo	140	1

EditCart

viewbill

---

### TOTAL AMOUNT TO BE PAID:

**Price:**1280

**Taxes:**128.0

**Total Price:**1408.0

**THANK YOU FOR SHOPPING!!!!**