SSN COLLEGE OF ENGINEERING, KALAVAKKAM

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
Internet Programming Lab – CS8661
Programming Assignment 13 - Online Shopping Application using Servlet and Cookies
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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.

CODE:

Index.html:

```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:

```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>cartservlet</servlet-name>
   <servlet-class>displaycart</servlet-class>
 </servlet>
 <servlet-mapping>
   <servlet-name>cartservlet</servlet-name>
   <url-pattern>/displaycart</url-pattern>
 </servlet-mapping>
 <servlet>
   <servlet-name>editservlet</servlet-name>
   <servlet-class>editcart</servlet-class>
 </servlet>
```

```xml
  <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:

```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:

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

public class viewmenu extends HttpServlet{
```

```java
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:

```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/>");
```

```java
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:

```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:

```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:

← → C ⓘ localhost:8080/ShoppingApp/ ☆ 📷 ✳ Ⓥ Paused ⋮

WELCOME TO PIZZA CORNER

┌─ Login ───┐
│ Username: [Vaishu   ]   │
│   │
│ Password: [vaishu   ]   │
│   │
│ [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]

← → C ⓘ 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	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

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!!!!!