

IP Lab 3

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IDE used: Eclipse IDE

Server used : Tomcat (XAMPP)

Database used: MySQL (XAMPP)

1. CGPA Calculation program :

index.html

```
<!DOCTYPE html>
<html>
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
    <title>Mark Processing System</title>
  </head>
  <body>
    <center>
      <h1>JSP Application - Mark Processing System</h1>
      <hr>
      <h2>IP Lab Student Records</h2>
      <form action="insertgrade.jsp" method="post">
        <pre>
Roll No      : <input type="text" name="rollno" required />

Name         : <input type="text" name="fname" required />

Integrated Programming      : <input type="text" name="mark1"
required/>

Information Security        : <input type="text" name="mark2"
required/>

Parallel and Distributed Systems : <input type="text" name="mark3"
required/>

Mobile Computing            : <input type="text" name="mark4"
required/>

Open Elective - II          : <input type="text" name="mark5"
required/>

Professional Elective - II  : <input type="text" name="mark6"
required/>

Integrated Programming Laboratory : <input type="text" name="mark7"
required/>
```

Information Security and Mobile Computing
Laboratory

:

required/>

Creative and Innovative Project

:

required/>

```
        <input type="submit" value="submit" />
    </pre>
</form>
</center>
</body>
</html>
```

insertgrade.jsp

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<%@page import="java.sql.*,java.util.*,
javax.servlet.ServletException,
javax.servlet.annotation.WebServlet,
javax.servlet.http.HttpServlet,
javax.servlet.http.HttpServletRequest,
javax.servlet.http.HttpServletResponse,
javax.servlet.http.HttpSession"%>
```

```
<%
```

```
String rollno = request.getParameter("rollno");
String name = request.getParameter("fname");
int grade1[] = new int[9];
String grade[] = new String[9];
```

```
int no[] = new int[9];
no[0] = Integer.parseInt(request.getParameter("mark1"));
no[1] = Integer.parseInt(request.getParameter("mark2"));
no[2] = Integer.parseInt(request.getParameter("mark3"));
no[3] = Integer.parseInt(request.getParameter("mark4"));
no[4] = Integer.parseInt(request.getParameter("mark5"));
no[5] = Integer.parseInt(request.getParameter("mark6"));
no[6] = Integer.parseInt(request.getParameter("mark7"));
no[7] = Integer.parseInt(request.getParameter("mark8"));
no[8] = Integer.parseInt(request.getParameter("mark9"));
for(int i=0;i<9;i++){
    if(no[i] >= 91 && no[i] <=100){
        grade1[i] = 10;
    }
    else if(no[i] >= 81 && no[i] <=90) {
        grade1[i] = 9;
    }
    else if(no[i] >= 71 && no[i] <=80) {
        grade1[i] = 8;
    }
    else if(no[i] >= 61 && no[i] <=70) {
        grade1[i] = 7;
    }
    else if(no[i] >= 51 && no[i] <=60) {
        grade1[i] = 6;
    }
}
```

```

    }
    else if(no[i] <= 50) {
        grade1[i] = 0;
    }
}

```

```

int totalcredits = 24;

```

```

float gpa =
3*grade1[0]+3*grade1[1]+3*grade1[2]+3*grade1[3]+3*grade1[4]+3*grade1[5]+2*grade1[6]
+2*grade1[7]+2*grade1[8];

```

```

gpa/=totalcredits;

```

```

out.println("Your GPA is "+gpa+"\n");

```

```

for(int i=0;i<9;i++){
    if(no[i] >= 91 && no[i] <=100){
        grade[i] = "O";
    }
    else if(no[i] >= 81 && no[i] <=90) {
        grade[i] = "A+";
    }
    else if(no[i] >= 71 && no[i] <=80) {
        grade[i] = "A";
    }
    else if(no[i] >= 61 && no[i] <=70) {
        grade[i] = "B+";
    }
    else if(no[i] >= 51 && no[i] <=60) {
        grade[i] = "B";
    }
    else if(no[i] <= 50) {
        grade[i] = "RA";
    }
}

```

```

String g1= grade[0];
String g2= grade[1];
String g3= grade[2];
String g4= grade[3];
String g5= grade[4];
String g6= grade[5];
String g7= grade[6];
String g8= grade[7];
String g9= grade[8];

```

```

// out.println(grade);

```

```

try
{
    Class.forName("com.mysql.jdbc.Driver");
    Connection conn = DriverManager.getConnection("jdbc:mysql://localhost:3306/test",
"root", "");
    Statement st=conn.createStatement();
    int i=st.executeUpdate("insert into
cgpa(rollno,name,ip,is1,pds,mc,oe,pe,iplab,isandmclab,cip,gpa)

```

```

values('"+rollno+"', '"+name+"', '"+g1+"', '"+g2+"', '"+g3+"', '"+g4+"', '"+g5+"', '"+g6+"',
'+g7+"', '"+g8+"', '"+g9+"', '"+gpa+"')");
out.println("\n Data is successfully inserted!");
out.println("<br>");

//out.println("<a href='view.jsp'>"+ "click here to view your
gpa"+ "</a><br><br><br>");
out.println("");
out.println("<a href='http://localhost:8080/markprocessingsystem/'>"+ "click here
to insert marks"+ "</a>");
}
catch(Exception e)
{
System.out.print(e);
e.printStackTrace();
}

%>
<html>
    <form action="view.jsp" method="post">
        <pre>
Enter your roll number : <input type="text" name="rollno" required />

                <input type="submit" value="submit" />
        </pre>
    </form>
</html>

```

view.jsp

```

<%@page contentType="text/html" pageEncoding="UTF-8"%>
<%@page import="java.sql.DriverManager"%>
<%@page import="java.sql.ResultSet"%>
<%@page import="java.sql.Statement"%>
<%@page import="java.sql.Connection"%>
<%@page import="java.sql.*, java.util.*,
javax.servlet.ServletException,
javax.servlet.annotation.WebServlet,
javax.servlet.http.HttpServlet,
javax.servlet.http.HttpServletRequest,
javax.servlet.http.HttpServletResponse,
javax.servlet.http.HttpSession"%>
<%

String driver = "com.mysql.jdbc.Driver";
String connectionUrl = "jdbc:mysql://localhost:3306/";
String database = "test";
String userid = "root";
String password = "";
int rollno = Integer.parseInt(request.getParameter("rollno"));
try {
Class.forName(driver);
} catch (ClassNotFoundException e) {
e.printStackTrace();
}
Connection connection = null;
Statement statement = null;
ResultSet resultSet = null;

```

```
%>
```

```
<!DOCTYPE html>
<html>
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
    <title>Results</title>
  </head>
  <body>
    <h1>Retrieve Student Results</h1>
    <table border="1">
      <tr>
        <td>Roll no</td>
        <td>Name</td>
        <td>Integrated Programming </td>
        <td>Information Security</td>
        <td>Parallel and Distributed Systems</td>
        <td>Mobile Computing</td>
        <td>Open Elective - II</td>
        <td>Professional Elective - II</td>
        <td>Integrated Programming Laboratory</td>
        <td>Information Security and Mobile Computing Laboratory</td>
        <td>Creative and Innovative Project</td>
      </tr>
    </table>
  </body>
</html>
```

```
try{
    connection = DriverManager.getConnection(connectionUrl+database, userid,
    password);
    statement=connection.createStatement();
    String sql = " select * from cgpa where rollno LIKE '%" + rollno + "%'";
    //String sql ="SELECT * FROM something WHERE ObjectName LIKE '%" + VariableName +
    "%'""

    resultSet = statement.executeQuery(sql);
    while(resultSet.next()){
      %>
      <tr>
        <td><%=resultSet.getString("rollno") %></td>
        <td><%=resultSet.getString("name") %></td>
        <td><%=resultSet.getString("ip") %></td>
        <td><%=resultSet.getString("is1") %></td>
        <td><%=resultSet.getString("pds") %></td>
        <td><%=resultSet.getString("mc") %></td>
        <td><%=resultSet.getString("oe") %></td>
        <td><%=resultSet.getString("pe") %></td>
        <td><%=resultSet.getString("iplab") %></td>
        <td><%=resultSet.getString("isandmclab") %></td>
        <td><%=resultSet.getString("cip") %></td>
      </tr>
    </table>
  </body>
</html>
}
```

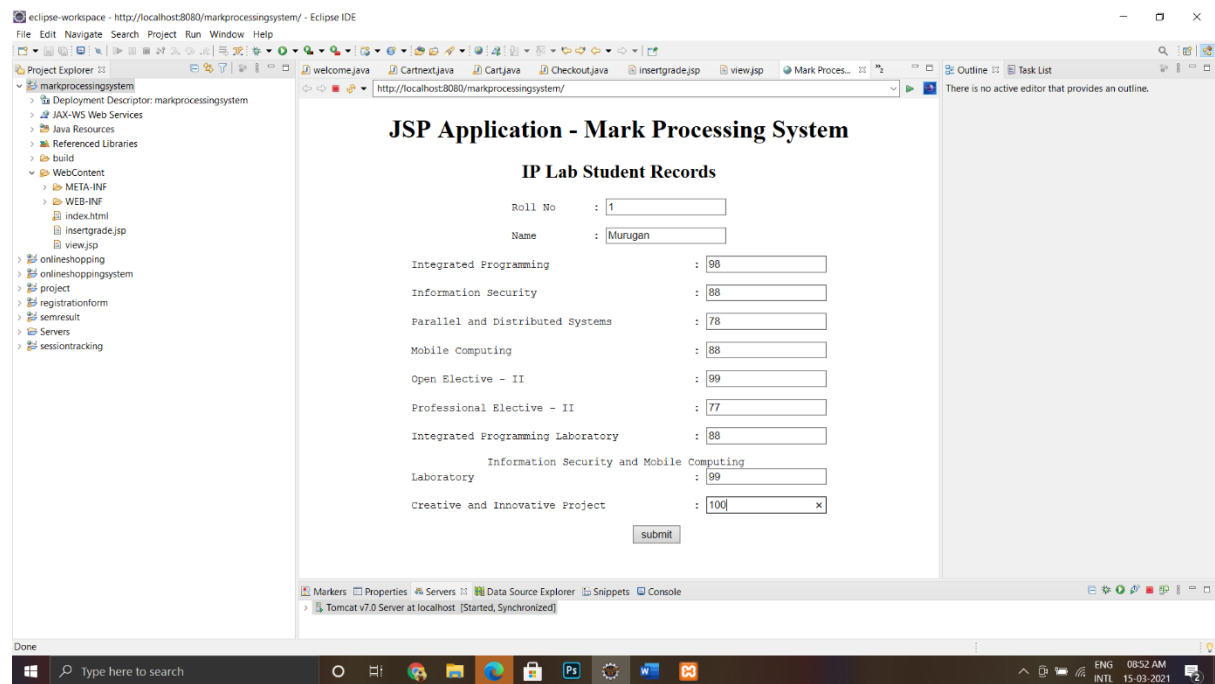
```

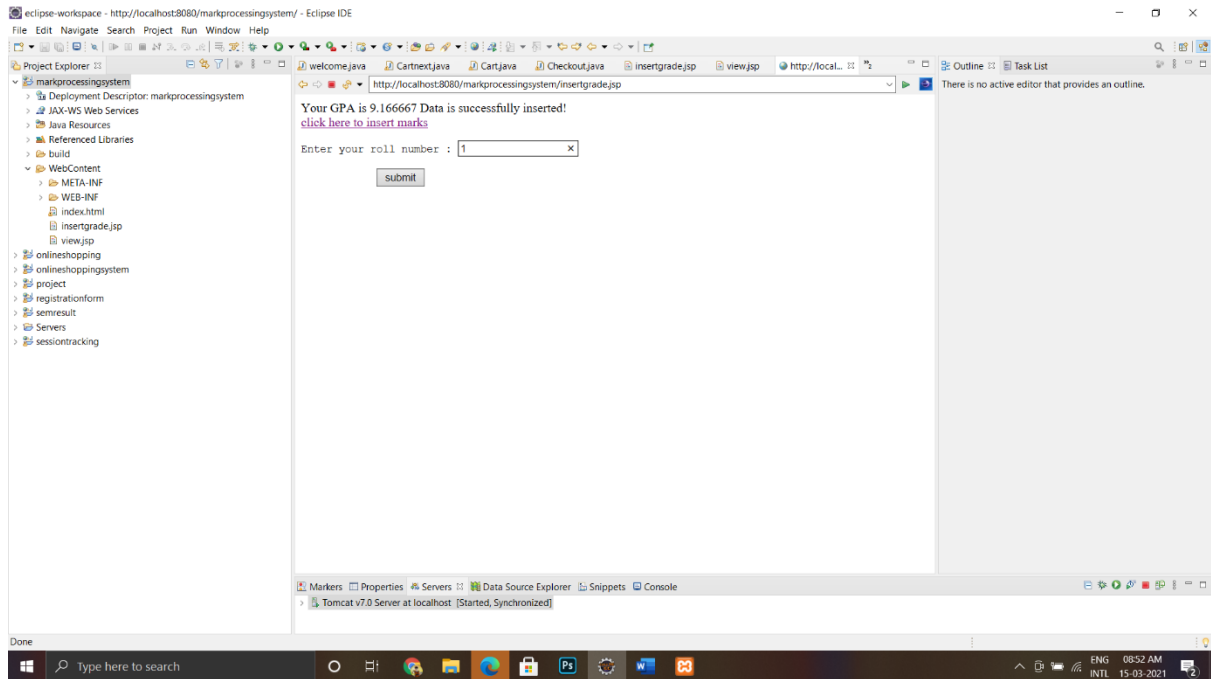
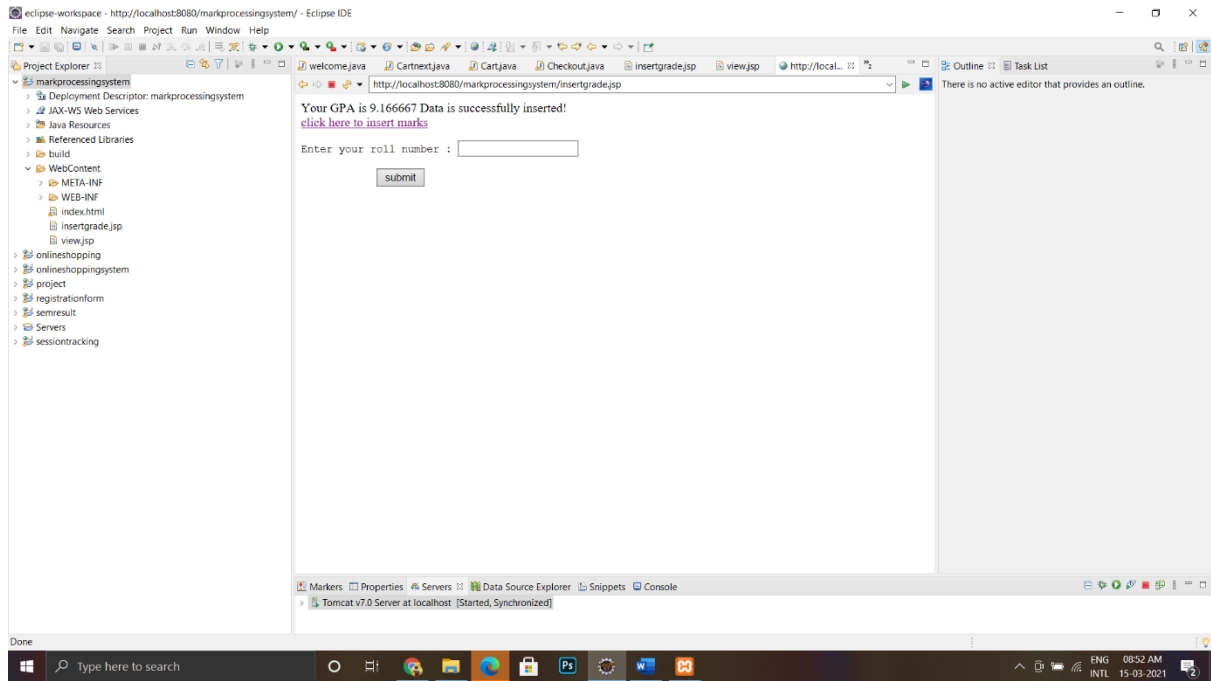
connection.close();
} catch (Exception e) {
e.printStackTrace();
}
//out.println("<a href='http://localhost:8080/markprocessingsystem/'>"+"click here
to insert marks"+"</a>");
%>

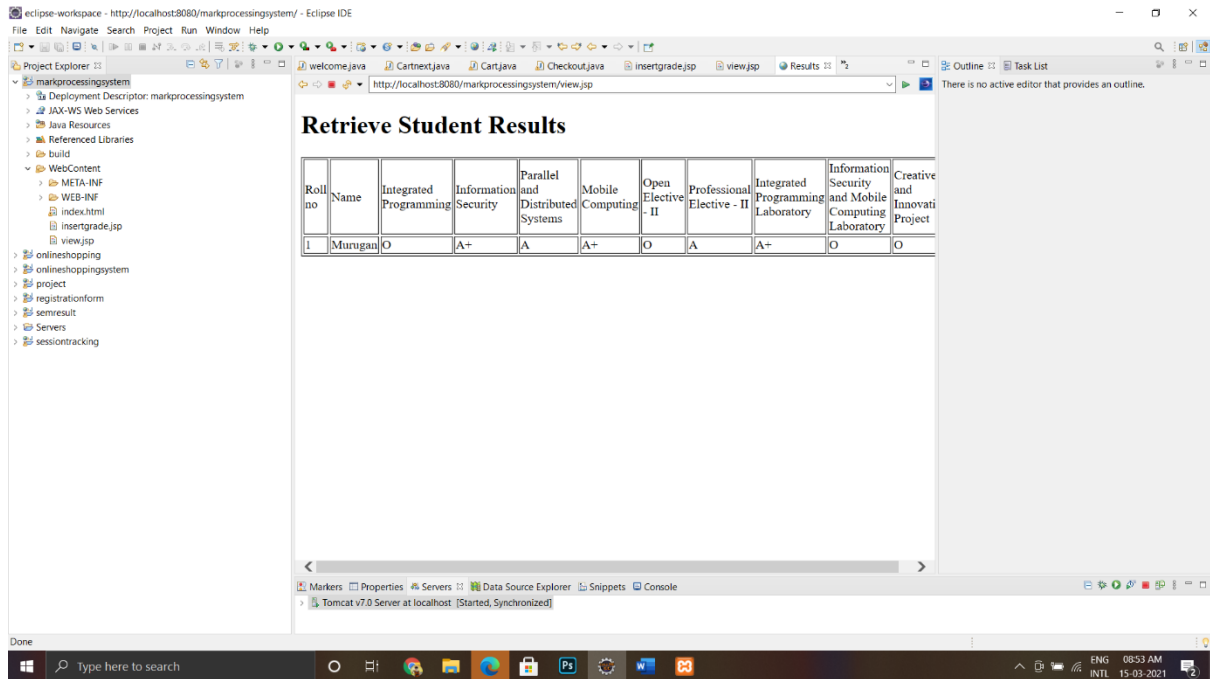
</body>

```

Output :







2. Online shopping system

index.jsp

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
    <title>Add Products</title>
  </head>
  <body>
    <center>
      <h1>Online Shopping system</h1>
      <h1>Enter products to add to the Database</h1>
      <form action="UpLoad" method="POST">
        Product ID: <input type="text" name="id" />
        <br>
        <br>
        Product Name: <input type="text" name="productname" />
        <br>
        <br>
        Product Description : <input type="text" name="productdesc" />
        <br>
        <br>
        Product Price : <input type="text" name="price" />
        <br>
        <br>
        <input type="submit" value="Add Products" />
      </form>
    </center>
  </body>
</html>
```


Upload.java

```
import java.io.IOException;
import java.io.PrintWriter;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.SQLException;
import java.util.logging.Level;
import java.util.logging.Logger;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
```

```
@WebServlet("/Upload")
public class Upload extends HttpServlet{
    Connection con;
    PreparedStatement pat;
    int row;
```

```
public void doPost(HttpServletRequest req,HttpServletResponse rsp)throws  
IOException,ServletException{
```

```
    rsp.setContentType("text/html");
```

```
    PrintWriter out = rsp.getWriter();
```

```
    try {
```

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

```
        con = DriverManager.getConnection("jdbc:mysql://localhost/test",  
"root", "");
```

```
        String id = req.getParameter("id");
```

```
        String name = req.getParameter("productname");
```

```
        String desc = req.getParameter("productdesc");
```

```
        String price = req.getParameter("price");
```

```
        pat = con.prepareStatement("insert into  
products(id,productname,productdesc,productprice)values(?,?,?,?)");
```

```
        pat.setString(1,id);
```

```
        pat.setString(2,name);
```

```
        pat.setString(3, desc);
```

```
        pat.setString(4,price);
```

```
        row = pat.executeUpdate();
```

```
        out.println("<font color='green'> Record Added Successfully </font>");
```

```

        } catch (ClassNotFoundException ex) {

            Logger.getLogger(Upload.class.getName()).log(Level.SEVERE, null,
ex);

        } catch (SQLException ex) {

            out.println("<font color='red'> Record not Added Successfully
</font>");

        }

        out.println("");

        out.println("<a
href='http://localhost:8080/onlineshopping/welcome'>"+ "click here to see
available products"+ "</a>");

    }

}

```

welcome.java

```

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.SQLException;

import java.sql.Statement;

```

```
import java.util.List;

import java.util.logging.Level;

import java.util.logging.Logger;

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 static jdk.nashorn.internal.objects.NativeFunction.function;
```

```
@WebServlet("/welcome")
```

```
public class welcome extends HttpServlet{
```

```
    Connection con;
```

```
    PreparedStatement pat;
```

```
    ResultSet rs;
```

```
    int row;
```

```
    public void doGet(HttpServletRequest req,HttpServletResponse rsp) throws
    IOException,ServletException
```

```
    {
```

```
List<String> proid= (List<String>)  
req.getSession().getAttribute("Productidlist");
```

```
List<String> proname= (List<String>)  
req.getSession().getAttribute("Productnamelist");
```

```
List<String> prodes= (List<String>)  
req.getSession().getAttribute("Productdesclist");
```

```
List<String> proprice= (List<String>)  
req.getSession().getAttribute("Productpricelist");
```

```
rsp.setContentType("text/html");
```

```
PrintWriter out = rsp.getWriter();
```

```
try {
```

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

```
    con = DriverManager.getConnection("jdbc:mysql://localhost/test",  
"root", "");
```

```
    String sql;
```

```
    sql = "select * from products";
```

```
    Statement stat = con.createStatement();
```

```
    rs = stat.executeQuery(sql);
```

```
    out.println("Available products");
```

```
    out.println("<table cellpadding='0' width='350px' border='1'>");
```

```
out.println("<tr>");

out.println("<td> Product ID </td>");

out.println("<td> Product Name </td>");

out.println("<td> Product Description </td>");

out.println("<td> Price </td>");

out.println("<td> Addtocart </td>");


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


while(rs.next()) {

    out.println("<tr>");

    out.println("<td>" + rs.getString("id") + "</td>");

    out.println("<td>" + rs.getString("productname") + "</td>");

    out.println("<td>" + rs.getString("productdesc") + "</td>");

    out.println("<td>" + rs.getString("productprice") + "</td>");

    out.println("<td>" + "<a href='Cart?id=" + rs.getString("id") + "'> Add  
to cart </a>" + "</td>");

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

}
```

```

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

        if(!proid.isEmpty())
        {
            out.println("your cart is not empty please checkout");
            out.println("<td>" + "<a href='Cartnext'>Go to cart</a>" + "</td>");

        }

    } catch (ClassNotFoundException ex) {

        Logger.getLogger(welcome.class.getName()).log(Level.SEVERE, null,
ex);
    } catch (SQLException ex) {

        out.println("<font color='red'> Record not found</font>");

    }

}

}
}

```

Cart.java

```

import static com.sun.corba.se.spi.presentation.rmi.StubAdapter.request;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

```

```
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.util.ArrayList;
import java.util.List;
import java.util.logging.Level;
import java.util.logging.Logger;
import javax.servlet.RequestDispatcher;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
```

```
@WebServlet("/Cart")
```

```
public class Cart extends HttpServlet{
```

```
    Connection con;
```

```
    PreparedStatement pat;
```

```
    ResultSet rs;
```

```
    int row;
```

```
    List<String> idl = new ArrayList<String>();
```

```
    List<String> namel = new ArrayList<String>();
```



```

List<String> desc1 = new ArrayList<String>();

List<String> price1 = new ArrayList<String>();

public void doGet(HttpServletRequest req, HttpServletResponse rsp) throws
IOException, ServletException
{

    rsp.setContentType("text/html");

    PrintWriter out = rsp.getWriter();

    String id = req.getParameter("id");

    try {

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

        con = DriverManager.getConnection("jdbc:mysql://localhost/test",
"root", "");

        pat = con.prepareStatement("select * from products where id = ?");

        pat.setString(1, id);

        rs = pat.executeQuery();

        while(rs.next())

        {

            if(!idl.contains(rs.getString("id")))

            {

                idl.add(rs.getString("id"));

            }

        }

    }

}

```

```
if(!namel.contains(rs.getString("productname")))
{
    namel.add(rs.getString("productname"));
}
if(!descl.contains(rs.getString("productdesc")))
{
    descl.add(rs.getString("productdesc"));
}
if(!pricel.contains(rs.getString("productprice")))
{
    pricel.add(rs.getString("productprice"));
}
}
```

```
req.getSession().setAttribute("Productidlist",idl);
req.getSession().setAttribute("Productnamelist",namel);
req.getSession().setAttribute("Productdesclist",descl);
req.getSession().setAttribute("Productpricelist",pricel);
```

```
if(idl.contains(id))
{

    out.println(idl);

    rsp.sendRedirect("welcome");
}
```

```
        out.println("<br>");

    }

    } catch (ClassNotFoundException ex) {
        Logger.getLogger(Cart.class.getName()).log(Level.SEVERE, null, ex);
    } catch (SQLException ex) {
        Logger.getLogger(Cart.class.getName()).log(Level.SEVERE, null, ex);
    }

}

}
```

Cartnext.java

```
import java.io.IOException;
import java.io.PrintWriter;
import java.util.List;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
```

```

@WebServlet("/Cartnext")

public class Cartnext extends HttpServlet{

    public void doGet(HttpServletRequest req,HttpServletResponse rsp)throws
    IOException,ServletException {

        List<String> proid= (List<String>)
req.getSession().getAttribute("Productidlist");

        List<String> prname= (List<String>)
req.getSession().getAttribute("Productnamelist");

        List<String> prodes= (List<String>)
req.getSession().getAttribute("Productdesclist");

        List<String> proprice= (List<String>)
req.getSession().getAttribute("Productpricelist");


        rsp.setContentType("text/html");

        PrintWriter out = rsp.getWriter();

        out.println("Products in the cart click buy to buy the products");

        out.println("<table border='1'>");

        out.println("<tr>");

        out.println("<td> Product ID </td>");

        out.println("<td> Product Name </td>");

        out.println("<td> Product Description </td>");

        out.println("<td> Product price </td>");

        out.println("<td> Checkout </td>");

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

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

```

```

{
    out.println("<tr>");

    out.println("<td>" + proid.get(i) + "</td>");
    out.println("<td>" + proname.get(i) + "</td>");
    out.println("<td>" + prodes.get(i) + "</td>");
    out.println("<td>" + proprice.get(i) + "</td>");

    out.println("<td>" + "<a href='Checkout?id=" + proid.get(i) + "'> Buy
</a>" + "</td>");

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

}

}

}

```

Checkout.java

```

import java.io.IOException;
import java.io.PrintWriter;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.util.List;
import java.util.logging.Level;
import java.util.logging.Logger;
import javax.servlet.ServletException;

```

```
import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;
```

```
@WebServlet("/Checkout")
```

```
public class Checkout extends HttpServlet{
```

```
    Connection con;
```

```
    PreparedStatement pat;
```

```
    ResultSet rs;
```

```
    int row;
```

```
    public void doGet(HttpServletRequest req,HttpServletResponse rsp)throws
IOException,ServletException
```

```
    {
```

```
        List<String> proid= (List<String>)
req.getSession().getAttribute("Productidlist");
```

```
        List<String> proname= (List<String>)
req.getSession().getAttribute("Productnamelist");
```

```
        List<String> prodes= (List<String>)
req.getSession().getAttribute("Productdesclist");
```

```
        List<String> proprice= (List<String>)
req.getSession().getAttribute("Productpricelist");
```

```
rsp.setContentType("text/html");
```

```
PrintWriter out = rsp.getWriter();
```

```
String s = req.getParameter("id");
```

```
int index = proid.indexOf(s);
```

```
try {
```

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

```
    con = DriverManager.getConnection("jdbc:mysql://localhost/test",  
    "root", "");
```

```
    pat = con.prepareStatement("Delete from products where id = ?");
```

```
    pat.setString(1, s);
```

```
    row = pat.executeUpdate();
```

```
    proid.remove(index);
```

```
    proname.remove(index);
```

```
        prodes.remove(index);

        proprice.indexOf(index);

        out.println("<font color='green'> Your order is Successfully ordered !!
</font>");

        out.println("<a href='welcome'> Browse items for next happy shopping
</a>");


    } catch (ClassNotFoundException ex) {

        Logger.getLogger(Checkout.class.getName()).log(Level.SEVERE, null,
ex);

    } catch (SQLException ex) {

        out.println("<font color='red'> Record failed </font>");

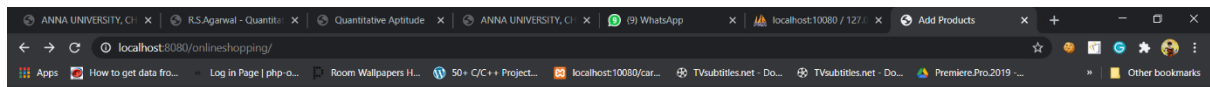
    }

}

}

}
```

Output:



Online Shopping system

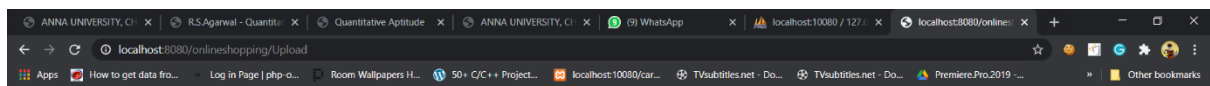
Enter products to add to the Database

Product ID:

Product Name:

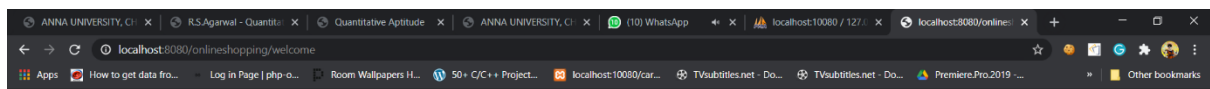
Product Description :

Product Price :



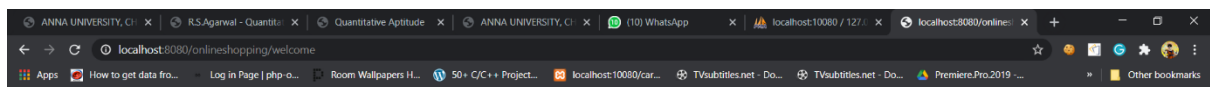
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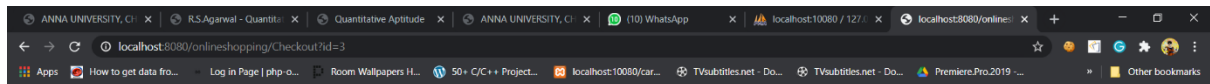
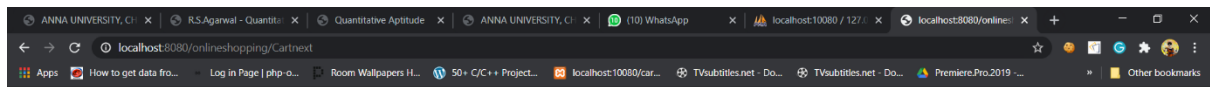


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