SRI RAMACHANDRA
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Category - I Deemed to be University) Porur, Chennai
SRI RAMACHANDRA ENGINEERING AND TECHNOLOGY

CSE 280 ADVANCE JAVA

STUDENT WORK BOOK

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Questions:

Write a jsp program to find out the following

1. Product that sold most

2. Product that have not sold

3. The cheapest product and the most expensive product

4. The customer details who purchased the product 'pen'.

5. The customer details who purchased pencil but not pen.

DB info

Product table

id name price

Customer table

id name phonenumber address

invoice

id pid cid qty

Program:

XML:

```xml
<web-app>

<servlet>
<servlet-name>q1</servlet-name>
<servlet-class>q1</servlet-class>
</servlet>

<servlet-mapping>
<servlet-name>q1</servlet-name>
<url-pattern>/q1</url-pattern>
</servlet-mapping>

<servlet>
<servlet-name>q2</servlet-name>
<servlet-class>q2</servlet-class>
</servlet>

<servlet-mapping>
<servlet-name>q2</servlet-name>
<url-pattern>/q2</url-pattern>
</servlet-mapping>

<servlet>
<servlet-name>q3</servlet-name>
<servlet-class>q3</servlet-class>
</servlet>

<servlet-mapping>
<servlet-name>q3</servlet-name>
<url-pattern>/q3</url-pattern>
</servlet-mapping>

<servlet>
<servlet-name>q4</servlet-name>
<servlet-class>q4</servlet-class>
</servlet>

<servlet-mapping>
<servlet-name>q4</servlet-name>
<url-pattern>/q4</url-pattern>
</servlet-mapping>
```

```xml
<servlet>
<servlet-name>q5</servlet-name>
<servlet-class>q5</servlet-class>
</servlet>

<servlet-mapping>
<servlet-name>q5</servlet-name>
<url-pattern>/q5</url-pattern>
</servlet-mapping>

</web-app>
```

SERVLETS:

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

public class q1 extends HttpServlet {

    public void init() throws ServletException {
    }

    public void doGet(HttpServletRequest request, HttpServletResponse response) t
hrows ServletException, IOException {

        response.setContentType("text/html");

        PrintWriter out = response.getWriter();
        out.println("<html><body>");
        try {
            Class.forName("com.mysql.cj.jdbc.Driver");

            Connection con = null;
            con = DriverManager.getConnection("jdbc:mysql://localhost/advjava?use
Unicode=true&useJDBCCompliantTimezoneShift=true&useLegacyDatetimeCode=false&serve
rTimezone=UTC","root", "");

            java.sql.Statement stmt = con.createStatement();

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

```java
            out.println("<tr><th>Product ID</th><th>Quantity Sold</th></tr>");
            ResultSet res = stmt.executeQuery("select pid, sum(qty) b from invoic
e group by pid order by b desc");
            while (res.next()) {
                out.println("<tr><td>"+res.getInt(1) +"</td><td>"+ " " + res.getS
tring(2) +"</td>"+ " "+"<tr>");
            }
            out.println("</table>");
            out.println("</body></html>");
            con.close();
        }catch (Exception e) {
            e.printStackTrace();
            out.println(e.getLocalizedMessage());
        }


    }

    public void destroy() {

    }
}
```

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

public class q2 extends HttpServlet {

    public void init() throws ServletException {
    }

    public void doGet(HttpServletRequest request, HttpServletResponse response) t
hrows ServletException, IOException {

        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        out.print("<html><body>");
        try {
            Class.forName("com.mysql.cj.jdbc.Driver");
            Connection con = null;
```

```java
            con = DriverManager.getConnection("jdbc:mysql://localhost/advjava?use
Unicode=true&useJDBCCompliantTimezoneShift=true&useLegacyDatetimeCode=false&serve
rTimezone=UTC","root", "");

            java.sql.Statement stmt = con.createStatement();
            out.println("<table>");

                out.println("<tr><th>Product ID</th><th>Product Name</th><th>Prod
uct Price</th></tr>");
            ResultSet res = stmt.executeQuery("SELECT * from products where id no
t in (select pid from invoice)");
            while (res.next()) {
                out.println("<tr><td>"+res.getInt(1) +"</td><td>"+ " " + res.getS
tring(2) +"</td>"+ "<td>"+res.getInt(3)+"</td>" +" "+"</tr>");
            }
            out.println("</table>");
            out.println("</body></html>");
            con.close();
        } catch (Exception e) {
            e.printStackTrace();
            out.println(e.getLocalizedMessage());


        }



    }

    public void destroy() {

    }
}
```

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

public class q3 extends HttpServlet {

    public void init() throws ServletException {
    }
```

```java
    public void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        out.println("<html><body>");
        try {
            Class.forName("com.mysql.cj.jdbc.Driver");
            Connection con = null;
            con = DriverManager.getConnection("jdbc:mysql://localhost/advjava?useUnicode=true&useJDBCCompliantTimezoneShift=true&useLegacyDatetimeCode=false&serverTimezone=UTC","root", "");
            java.sql.Statement stmt = con.createStatement();
            out.println("<table>");
            out.println("<tr><th>Product ID</th><th>Product Name</th><th>Product Price</th></tr>");
            ResultSet res =  stmt.executeQuery("SELECT * from products where price= (select max(price) from products) or price= (select min(price) from products)");
            while (res.next()) {
                out.println("<tr><td>"+res.getInt(1) +"</td><td>"+ " " + res.getString(2) +"</td>"+ "<td>"+res.getInt(3)+"</td>" +" "+"</tr>");
            }
            out.println("</table>");
            out.println("</body></html>");
            con.close();
        }catch (Exception e) {
        e.printStackTrace();
        out.println(e.getLocalizedMessage());
    }


    }

    public void destroy() {

    }
}
```

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

```java
public class q4 extends HttpServlet {

    public void init() throws ServletException {
    }

    public void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        out.println("<html><body>");
        try {
            Class.forName("com.mysql.cj.jdbc.Driver");
            Connection con = null;
            con = DriverManager.getConnection("jdbc:mysql://localhost/advjava?useUnicode=true&useJDBCCompliantTimezoneShift=true&useLegacyDatetimeCode=false&serverTimezone=UTC","root", "");

            java.sql.Statement stmt = con.createStatement();
            out.println("<table>");
            out.println("<tr><th>Customer ID</th><th>Customer Name</th><th>Customer Phone Number</th><th>Customer Address</th></tr>");
            ResultSet res = stmt.executeQuery("select * from customers where id in (SELECT cid FROM `invoice` where pid=1)");
            while (res.next()) {
                out.println("<tr><td>"+res.getInt(1) +"</td><td>"+ " " + res.getString(2) +"</td>"+ "<td>"+res.getLong(3)+"</td>" +"<td>"+res.getString(4)+"</td>"+"</tr>");
            }
            out.println("</table>");
            out.println("</body></html>");
            con.close();
        } catch (Exception e) {
            e.printStackTrace();
            out.println(e.getLocalizedMessage());
        }


    }

    public void destroy() {

    }
}
```

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

public class q5 extends HttpServlet {

    public void init() throws ServletException {
    }

    public void doGet(HttpServletRequest request, HttpServletResponse response) t
hrows ServletException, IOException {

        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        out.println("<html><body>");
        try {
            Class.forName("com.mysql.cj.jdbc.Driver");
            Connection con = null;
            con = DriverManager.getConnection("jdbc:mysql://localhost/advjava?use
Unicode=true&useJDBCCompliantTimezoneShift=true&useLegacyDatetimeCode=false&serve
rTimezone=UTC","root", "");

            java.sql.Statement stmt = con.createStatement();
            out.println("<table>");
            out.println("<tr><th>Customer ID</th><th>Customer Name</th><th>Custom
er Phone Number</th><th>Customer Address</th></tr>");
            ResultSet res = stmt.executeQuery("select * from customers where id n
ot in (SELECT cid FROM `invoice` where pid=1) and id in (SELECT cid FROM `invoice
` where pid=2)");
            while (res.next()) {
                out.println("<tr><td>"+res.getInt(1) +"</td><td>"+ " " + res.getS
tring(2) +"</td>"+ "<td>"+res.getLong(3)+"</td>" +"<td>"+res.getString(4)+"</td>"
+"</tr>");
            }
            out.println("</table>");
            out.println("</body></html>");
            con.close();
        } catch (Exception e) {
            e.printStackTrace();
            out.println(e.getLocalizedMessage());
        }
```

```
        }

    public void destroy() {

        }
}
```

Output:

Product ID Quantity Sold

Product ID	Quantity Sold
7	10
1	5
10	4
5	3
3	2
2	1
8	1

Product ID Product Name Product Price

Product ID	Product Name	Product Price
4	marker	30
6	a4 paper	2
9	chart	4

Product ID Product Name Product Price

Product ID	Product Name	Product Price
4	marker	30
7	paperclip	1

Customer ID Customer Name Customer Phone Number Customer Address

Customer ID	Customer Name	Customer Phone Number	Customer Address
1	abc	123456789	Add1
2	def	2345617	Add2

Customer ID Customer Name Customer Phone Number Customer Address

Customer ID	Customer Name	Customer Phone Number	Customer Address
3	ghi	98765432	Add3