



Practical Record and mini project
Submitted in partial fulfillment of the requirements for
the award of the degree

**Master of Computer Application
(II Semester)**

DEVELOPED BY

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CERTIFICATE

This is to certify that Ms. Nikitha AM (23DMMCA054) belonging to 2nd Semester MCA Program has satisfactorily completed the experiments /laboratory work and Mini Project in the course 8CSPL6421 : ADVANCED JAVA PROGRAMMING and Lab prescribed by the School of Science and computer Studies, CMR University, Bangalore during the academic year 2023-2024.

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Declaration

The project titled **Potrait Selling Platform** developed by me in the partial fulfillment of II Semester, MCA programme, is an authentic work carried out by me under the guidance of Prof. Remya P Namboorthi , Assistant Professor School of Science and Computer Studies, CMR University, Bangalore. I declare that the project has not been submitted to any degree or diploma to the above said university or any other university.

Signature:

Name: Nikitha AM

Reg No: 23DMMCA054

I certify that all the above statements given by the candidate is true to the best of my knowledge and belief.

Signature:

Prof. Remya P Namboorthi
Project Guide

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PART A

1. Write a JDBC program to accept user's details, store and display to from the database

```
package myproject4;

import java.sql.*; import
java.io.BufferedReader;
import java.io.InputStreamReader;

public class labq1 {
    public static void main(String[] args) {
        try {
            // Use the appropriate driver class for your MySQL version
            Class.forName("com.mysql.cj.jdbc.Driver");
            Connection con =
            DriverManager.getConnection("jdbc:mysql://localhost:3306/mcadb1", "root", "root");
            System.out.println("Connection Established");

            Statement stmt = con.createStatement();
            BufferedReader br = new BufferedReader(new InputStreamReader(System.in));

            String name, phone, email;
            int age;

            System.out.println("Enter how many Users:");
            int count = Integer.parseInt(br.readLine());

            for (int i = 0; i < count; i++) {
                System.out.println("Enter the details of user " + (i + 1));
                System.out.println("-----");
                System.out.println("Enter the User name:");
                name = br.readLine();
                System.out.println("Enter the User Age:");
                age = Integer.parseInt(br.readLine());
                System.out.println("Enter the User phone:");
                phone = br.readLine();
                System.out.println("Enter the User email:");
                email = br.readLine();

                String sql = "INSERT INTO user_details(user_name, user_age, user_phone,
                user_email) VALUES ("
                + name + ", " + age + ", " + phone + ", " + email + ")";
                stmt.executeUpdate(sql);
                System.out.println("Data Inserted successfully...");
            }
        }
    }
}
```

```

        // String sql1 = "SELECT * FROM user_details";
        // ResultSet rs = stmt.executeQuery(sql1);
        // System.out.println("User details :");
        // while (rs.next()) {
        //     System.out.print(rs.getInt("user_id") + "\t");
        //     System.out.print(rs.getString("user_name") + "\t");
        System.out.print(rs.getInt("user_age") + "\t");
        //     System.out.print(rs.getString("user_phone") + "\t");
        //     System.out.print(rs.getString("user_email") + "\n");
        // }

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

```

Output:-

```

eclipse-workspace - myproject4/src/myproject4/labq1.java - Eclipse IDE
File Edit Source Refactor Source Navigate Search Project Run Window Help
Problems Servers Terminal Data Source Explorer Console x Console
<terminated> Labq1 [Java Application] C:\Users\JAY\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.22.0.1.v20240426-1149\jre\bin\javaw.exe (6 Oct 2024, 10:44:47 am - 10:45:52 am) [pid: 9016]
Connection Established
Enter how many Users:
1
Enter the details of user 1
-----
Enter the User name:
jay
Enter the User Age:
22
Enter the User phone:
9097088427
Enter the User email:
jay94588@gmail.com
Data Inserted successfully...
User details :
1   Jatin   22   9097088427   jay94588@gmail.com
2   gowtham 21   62727   gjj
3   jay     22   908765   jay@gmail.com
4   jay     22   123456789   jay@gmail.com
5   baba    222  123456789   sdf
6   jay     12   ws
7   jay     22   9097088427   jay94588@gmail.com
8   jay     22   9097088427   jay94588@gmail.com

```

2. Write a JDBC program to edit user's details and display the records

```
package myjdbc;
import java.sql.*;
import java.util.Scanner;

public class Update {
    public static void main(String args[])
    {
        Scanner sc= new Scanner(System.in);

        System.out.println("Enter the User ID to update details");
        int userId=sc.nextInt();
        System.out.println("Enter the new name:");
        String name=sc.next();
        System.out.println("Enter the new age:");
        int age=sc.nextInt();
        System.out.println("Enter the new phone number:");
        String phone=sc.next();
        System.out.println("Enter the new email ID:");
        String email=sc.next();
        try{
            Class.forName("com.mysql.jdbc.Driver");
            Connection
con=DriverManager.getConnection("jdbc:mysql://localhost:3306/mcadb3","root","hima");
            System.out.println("Connection Established");
            String sql = "Update users3 set
user_name=?,user_age=?,user_phone=?,user_email=? where user_Id=?";
            PreparedStatement pstmt = con.prepareStatement(sql);
            pstmt.setString(1, name);
            pstmt.setInt(2, age);
            pstmt.setString(3, phone);
            pstmt.setString(4, email);
            pstmt.setInt(5, userId);

            pstmt.executeUpdate();
            System.out.println("Data Updated successfully...");

            Statement stmt = con.createStatement();
            sql = "select * from users3";
            ResultSet rs = stmt.executeQuery(sql);
            while(rs.next()){
                //Display values
                System.out.print( rs.getInt("user_id")+"\t");
                System.out.print(rs.getString("user_name")+"\t");
                System.out.print( rs.getInt("user_age")+"\t");
                System.out.print(rs.getString("user_phone")+"\t");
                System.out.print(rs.getString("user_email")+"\n");
            }
        }
    }
}
```



```

    }

    con.close();

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

```

Output:

```

eclipse-workspace - myproject62/src/myproject62/MySQLUpdate.java - Eclipse IDE
File Edit Source Refactor Source Navigate Search Project Run Window Help
Problems Servers Terminal Data Source Explorer Console x
terminated> MySQLUpdate [Java Application] C:\Users\IAV\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.22.0.1.v20240426-1149\jre\bin\javaw.exe (6 Oct 2024, 10:58:13 am -- 10:58:29 am) [pid: 10148]
Loading class 'com.mysql.jdbc.Driver'. This is deprecated. The new driver class is 'com.mysql.cj.jdbc.Driver'. The driver is automatically registered via the ServiceLoader mechanism.
Connection Established
Enter the User ID to update details
1
Enter the field to be updated:
Press 1 ----> Name
Press 2 ----> Age
Press 3 ----> Email Id
Press 4 ----> Phone Number
1
Enter the User name:
Vicky
Data Updated successfully...
Updated User details:
1      Vicky  22      9097088427      jay94588@gmail.com

```

3. Write a Socket program to communicate between client and server.

My Client

```
package sockets;
```

```
import java.io.BufferedReader;
import java.io.DataInputStream;
import java.io.DataOutputStream;
import java.io.InputStreamReader;
import java.net.*;

public class Myclient {
    public static void main(String[] args) throws Exception{
        Socket s=new Socket("localhost",3333);
        DataInputStream din=new DataInputStream(s.getInputStream());
        DataOutputStream dout=new DataOutputStream(s.getOutputStream());
        BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
        String str="",str2="";
        while(!str.equals("stop")) {
            str=br.readLine();
            dout.writeUTF(str);
            dout.flush();
            str2=din.readUTF();
            System.out.println("server says:"+str2);
        }
        dout.close();
        s.close();
    }
}
```

My Server

```
package sockets;
```

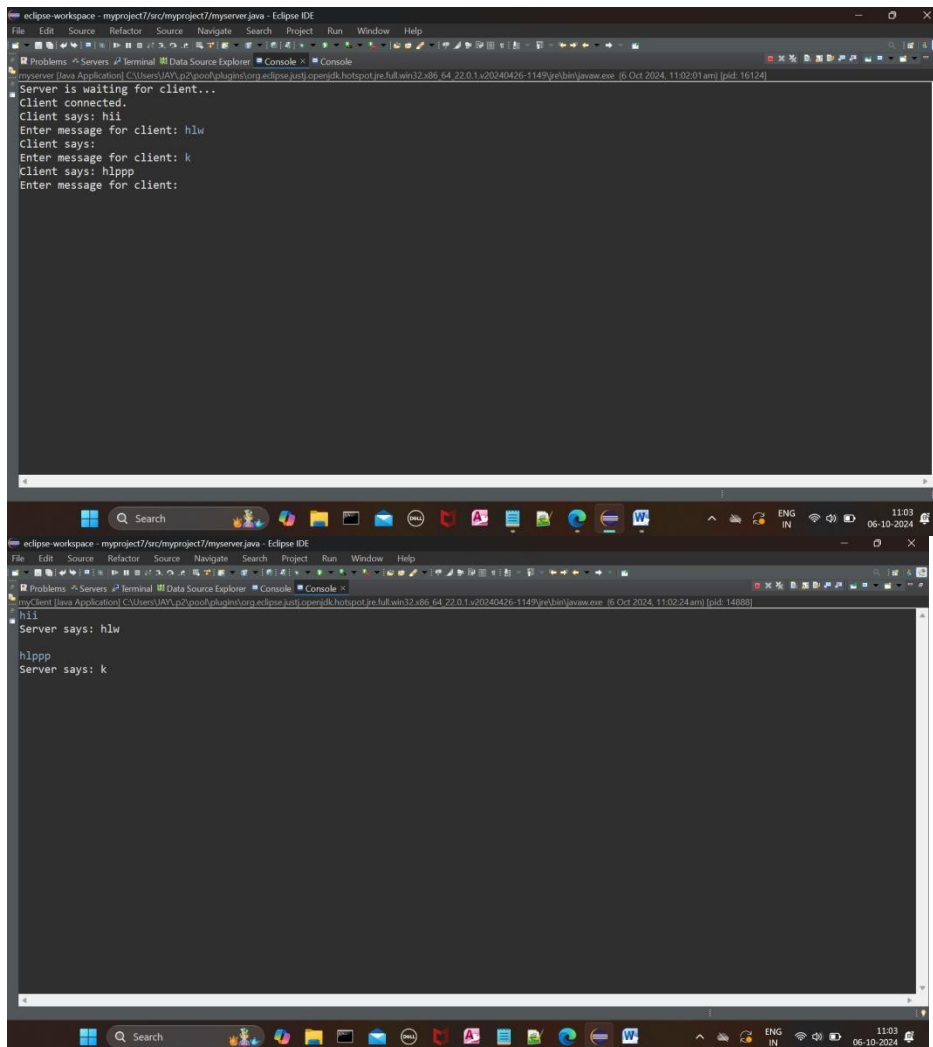
```
import java.io.BufferedReader;
import java.io.DataInputStream;
import java.io.DataOutputStream;
import java.io.InputStreamReader;
import java.net.*;

public class Myserver {
    public static void main(String[] args) throws Exception{
        ServerSocket ss=new ServerSocket(3333);
        Socket s=ss.accept();
        DataInputStream din=new DataInputStream(s.getInputStream());
        DataOutputStream dout=new DataOutputStream(s.getOutputStream());
        BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
        String str="",str2="";
```

```

        while(!str.equals("stop")) {
            str=din.readUTF();
            System.out.println("client says:"+str);
            str2=br.readLine();
            dout.writeUTF(str2);
            dout.flush();
        }
        din.close();
        s.close();
        ss.close();
    }
}
}
Output:

```



4. Write a Socket program using URLConnection and InetAddress class.

```
package sockets;
import java.io.BufferedReader;
import java.io.InputStreamReader;
import java.net.InetAddress;
import java.net.URL;
import java.net.URLConnection;
public class UrlConnection {
    public static void main(String args[]) {
        try {
            String host="www.example.com";
            InetAddress address=InetAddress.getByName(host);
            System.out.println("host name:"+address.getHostName());
            System.out.println("host address:"+address.getHostAddress());

            URL url=new URL("http://"+host);
            URLConnection urlconnection=url.openConnection();

            urlconnection.setConnectTimeout(5000);
            urlconnection.setReadTimeout(5000);

            BufferedReader in=new BufferedReader(new
InputStreamReader(urlconnection.getInputStream()));
            String inputLine;
            System.out.println("content form:"+host+":");
            while((inputLine=in.readLine())!=null) {
                System.out.println(inputLine);
            }
            in.close();
        } catch (Exception e) {
            e.printStackTrace();
        }
    }
}
```

Output:

5. Write a Servlet program to handle client request and generating response from server
package lab5;

```
import jakarta.servlet.ServletException; import
jakarta.servlet.http.HttpServlet; import
jakarta.servlet.http.HttpServletRequest; import
jakarta.servlet.http.HttpServletResponse; import
java.io.IOException;
import java.io.PrintWriter;

/**
 * Servlet implementation class Lab5
 */

public class Lab5 extends HttpServlet {
    private static final long serialVersionUID = 1L;

    /**
     * @see HttpServlet#HttpServlet()
     */
    public Lab5() {
        super();
        // TODO Auto-generated constructor stub
    }

    /**
     * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
     */
    protected void doGet(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {
        // TODO Auto-generated method stub
        response.setContentType("text/html");          PrintWriter
        pwriter=response.getWriter();
                pwriter.println("Hello from servlet <br>Fifth one");
        pwriter.close();
    }

    /**
     * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
     */
    protected void doPost(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {
        // TODO Auto-generated method stub
        doGet(request, response);
    }
}
```

6. Write a Servlet program to implement session tracking.

```
import java.io.*;
import jakarta.servlet.annotation.WebServlet;
import jakarta.servlet.http.HttpServlet;
import jakarta.servlet.http.HttpServletRequest;
import jakarta.servlet.http.HttpServletResponse;
import jakarta.servlet.http.HttpSession;

@WebServlet("/FirstServlet")
public class FirstServlet extends HttpServlet {

    public void doGet(HttpServletRequest request, HttpServletResponse response){
        try{

            response.setContentType("text/html");
            PrintWriter out = response.getWriter();

            String n=request.getParameter("userName");
            out.print("Welcome "+n);

            HttpSession session=request.getSession();
            session.setAttribute("uname",n);
            out.print("<a href='SecondServlet'>visit</a>");
            out.close();
        } catch(Exception e){System.out.println(e);}
    }
}
```

Second Servlet

```
import java.io.*;
import jakarta.servlet.annotation.WebServlet;
import jakarta.servlet.http.HttpServlet;
import jakarta.servlet.http.HttpServletRequest;
import jakarta.servlet.http.HttpServletResponse;
import jakarta.servlet.http.HttpSession;

@WebServlet("/SecondServlet")
public class SecondServlet extends HttpServlet {

    public void doGet(HttpServletRequest request, HttpServletResponse response) {
        try{
            response.setContentType("text/html");
            PrintWriter out = response.getWriter();
            HttpSession session=request.getSession(false);
            String n=(String)session.getAttribute("uname");
            out.print("Hello "+n);
        }
    }
}
```

```

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

```

Index.html

```

<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Insert title here</title>
</head>
<body>
<form action="Firstservlet">
Name:<input type="text" name="userName"/><br/>
<input type="submit" value="go"/>
</form>
</body>
</html>

```

Output:



7. Write a JSP program to implement the registration form.

Registration.jsp

```
<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<%@ page import="java.sql.*" %>
<%

    Class.forName("com.mysql.jdbc.Driver");
    try {Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/mcadb1", "root", "hima");
        PreparedStatement stmt = con.prepareStatement("INSERT INTO Students
(name, roll, course, email, phone) VALUES(?, ?, ?, ?, ?)");
        {

            String name = request.getParameter("name");
            String roll = request.getParameter("roll");
            String course = request.getParameter("course");
            String email = request.getParameter("email");
            String phone = request.getParameter("phone");

            stmt.setString(1, name);
            stmt.setString(2, roll);
            stmt.setString(3, course);
            stmt.setString(4, email);
            stmt.setString(5, phone);
            stmt.executeUpdate();

            out.print("Registration Successful");
        }
    } catch (Exception e) {
        out.print("Error: " + e.getMessage());
    }
%>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Insert title here</title>
</head>
<body>

</body>
</html>
Registration.html
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Insert title here</title>
</head>
```

```

<body>
<form action="registration.jsp" method="post">
  <table>
    <thead>
      <tr>
        <th colspan="2">Student Registration Form</th>
      </tr>
    </thead>
    <tbody>
      <tr>
        <td><label for="name">Name:</label></td>
        <td><input type="text" id="name" name="name" size="15" required/></td>
      </tr>
      <tr>
        <td><label for="roll">Roll No.:</label></td>
        <td><input type="text" id="roll" name="roll" size="15" required/></td>
      </tr>
      <tr>
        <td><label for="course">Course:</label></td>
        <td><input type="text" id="course" name="course" size="15" required/></td>
      </tr>
      <tr>
        <td><label for="email">Email:</label></td>
        <td><input type="email" id="email" name="email" required/></td>
      </tr>
      <tr>
        <td><label for="phone">Phone:</label></td>
        <td>
          <input type="text" id="country_code" name="country_code" value="+91"
size="2" readonly/>
          <input type="text" id="phone" name="phone" size="10" required/>
        </td>
      </tr>
      <tr>
        <td colspan="2"><input type="submit" value="Submit"/></td>
      </tr>
    </tbody>
  </table>
</form>

</body>
</html>

```

Output:



8. Write a JSP program to implement login and user's dashboard using session.

student.jsp

```
<%@ page language="java" contentType="text/html; charset=UTF-8"
pageEncoding="UTF-8"%>
<%@ page import="java.sql.*" %>
<%
```

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

```
Connection con = DriverManager.getConnection("jdbc:mysql://localhost:3306/mcadb",
"root", "hima");
%>
```

```
<!DOCTYPE html>
<html>
<head>
    <meta charset="UTF-8">
    <title>Registration</title>
</head>
<body>
<br>
<br>
<form action="studentlogin.jsp">
<table>
<thead> Student Login Form</thead>
<tr>
<td><label> User Id:</label></td>
<td><input type="text" name="id" size="15"/></td>
</tr>
<tr>
<td><label> Password:</label></td>
<td><input type="password" name="pass" size="15"/></td>
</tr>
<tr>
<td colspan=2><input type="submit" value="Login"/></td>
</tr>
</table>
</form>

<%
    String id=request.getParameter("id");
    String pass=request.getParameter("pass");
```

```

        if(pass!=null){
            PreparedStatement stmt=con.prepareStatement("Select * from students where
userId=? and password=?");
            stmt.setString(1,id);
            stmt.setString(2,pass);
            ResultSet rs=stmt.executeQuery();
            if(rs.next()){
                session.setAttribute("id",rs.getString(1));
                session.setAttribute("name",rs.getString(2));
                session.setAttribute("roll",rs.getString(3));
                session.setAttribute("course",rs.getString(4));
                session.setAttribute("phone",rs.getString(5));
                session.setAttribute("email",rs.getString(6));
                response.sendRedirect("dashboard.jsp");
            }
            else{
                out.println("Wrong Id or Password");
            }
        }
        con.close();
    %>

</body>
</html>

```

Dashboard.jsp

```

<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Insert title here</title>
</head>
<body>
<h2> dashboard </h2>
<br>
Student ID: <%=session.getAttribute("id") %>
<br>
Student Name: <%=session.getAttribute("name") %>
<br>
Student Roll No: <%=session.getAttribute("roll") %>
<br>
Student Course: <%=session.getAttribute("course") %>

```

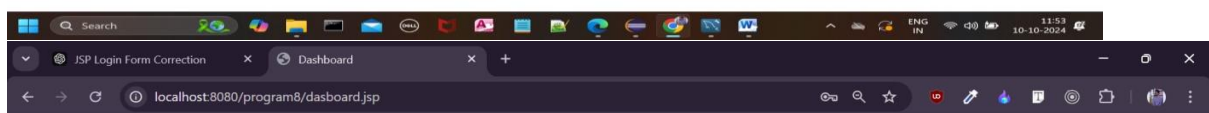

Student Email : <%=session.getAttribute("email") %>

Student Phone No: <%=session.getAttribute("phone") %>

</body>

</html>

Output:



9. Write a JSP program with Java Bean for editing the products information

Product.java

package prog9;

```
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.ArrayList;
import java.util.List;
```

```
public class Product {
```

```
    private String name;
    private int price;
    private String type;
    Connection con;
```

```
    super();
    try {
```

```
        Class.forName("com.m
```

```
ysql.jdbc.Driver");
        Connection("jdbc:mysql://localhost:3306/mcadb", "root", "hima");
```

```
    }
```

```
    {
```

```
    }
```

```
id, String name, int price, String type)
```

```
private String id;
```

```
public Product() {
```

```
    Class.forName("com.m
```

```
ysql.jdbc.Driver");
    con=DriverManager.get
```

```
catch(Exception e)
```

```
e.printStackTrace();
```

```
}
```

```
public Product(String
```

```

        { super();
          this.id = id; this.name =
name; this.price = price; this.type = type;

          try {
            Class.forName("com.mysql.jdbc.Driver");
            con = DriverManager.getConnection("jdbc:mysql://localhost:3306/mcadb", "root",
"hima");

            catch(Exception e){
              e.printStackTrace();
            }

          }

        }

        public List<Product> getProducts(){
          ArrayList<Product>
products = new ArrayList<>();

          try {

            Statement stmt =
            ResultSet rs =

            System.out.println("stm
t executed");
            while(rs.next()) {

              System.out.println(rs.ge
tString(2));

              Product c = new
Product(rs.getString(1), rs.getString(2), rs.getInt(3), rs.getString(4));
              products.add(c);

            }

          } catch(Exception e) {

            e.printStackTrace();

          }

          return products;

        }

```



```

public void updateProduct()
{
    try {
        PreparedStatement ps = con.prepareStatement("update product set product_name=?, " +
"product_price=?, product_type=? where product_id=?");
        ps.setString(1, name);
        ps.setInt(2, price);
        ps.setString(3, type);
        ps.setString(4, id);
        ps.execute();
    } catch (Exception e) {
        e.printStackTrace();
    }
}

public String getId() {
    return id;
}

public void setId(String id) {
    this.id = id;
}

public String getName() {
    return name;
}

public void setName(String name) {
    this.name = name;
}

public int getPrice() {
    return price;
}

public void setPrice(int price) {
    this.price = price;
}

public String getType() {
    return type;
}

public void setType(String type) {
    this.type = type;
}
}

```

Product.jsp

```

<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<%@ page import="prog9.Product" %>

```

```

    <%@ page import="java.util.*" %>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Insert title here</title>
</head>
<body>
<table>
<tr>
    <td>ID</td>
    <td>Name</td>
    <td>Price</td>
    <td>Type</td>
    <td></td>
</tr>
<%
Product p = new Product();
List <Product> products= p.getProducts();
for (Product product:products)
{
%>
<form action="edit.jsp" method="post">
    <tr>
        <td><input name="id" value=<%= product.getId() %> /></td>
        <td><input name="name" value=<%= product.getName() %> /> </td>
        <td><input name="price" value=<%=product.getPrice() %> /></td>
        <td><input name="type" value=<%=product.getType() %> /></td>
        <td><input type="submit" value="Edit" /></td>
    </tr>
</form>
<%} %>

</table>
</body>
</html>

```

Edit.jsp

```

<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
    <%@ page import="prog9.Product" %>
    <%@ page import="java.util.*" %>
<!DOCTYPE html>

```

```

<html>
<head>
<meta charset="UTF-8">
<title>Insert title here</title>
</head>
<body>

</body>
<%
Product p= new Product(request.getParameter("id"),
                        request.getParameter("name"),
                        Integer.parseInt(request.getParameter("price")),
                        request.getParameter("type"));
p.updateProduct();
out.print("Record updated Successfully");
%>
<form action="Product.jsp">
<input type="submit" value="Go To Products page" />
</form>

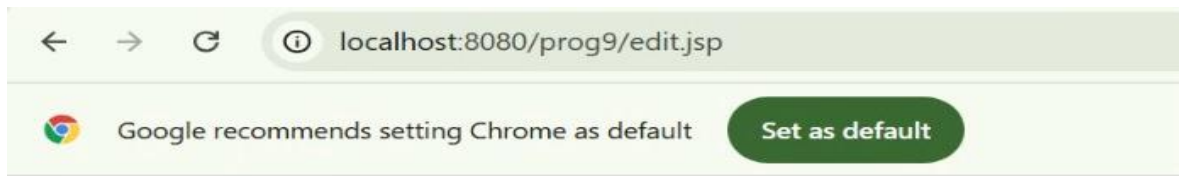
</html>

```

Output:



ID	Name	Price	Type	
1	navaratna	1000	coolants	Edit
2	iron	32000	electronics	Edit
3	fridge	50000	electronics	Edit
4	iphone	25000	phone	Edit



ID	Name	Price	Type	
1	navaratna	1000	coolants	Edit
2	television	32000	electronics	Edit
3	fridge	50000	electronics	Edit
4	iphone	25000	phone	Edit

The screenshot shows a web browser window with the address bar displaying 'localhost:8080/prog9/Product.jsp?'. Below the address bar is a green banner with the Google logo, the text 'Google recommends setting Chrome as default', and a green button labeled 'Set as default'. Below the banner is a table with four columns: ID, Name, Price, and Type. The table contains four rows of data. Each row has an 'Edit' button to its right.

10. Design an application to access product information using MVC- JSP and Servlet.

ProductController.java

```
import java.io.IOException;
import jakarta.servlet.ServletException;
import jakarta.servlet.http.HttpServlet;
import jakarta.servlet.http.HttpServletRequest;
import jakarta.servlet.http.HttpServletResponse;

public class ProductController extends HttpServlet {
    private static final long serialVersionUID = 1L;
    private ProductDAO productDAO;
    @Override
    public void init() throws ServletException {
        productDAO = new ProductDAO();
    }
    Joe
    * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
    */
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        // TODO Auto-generated method stub
        List<Product> products = productDAO.getAllProducts();
        request.setAttribute( "products", products);
        request.getRequestDispatcher("/jsp/productList.jsp"). forward(request, response);
    }
}
```

ProductDAO. java

```
package com.example.model;
import java.util.*;
public interface ProductDAO {
    // Fetch all products
    public List<Product> getAllProducts();
}
```

Productlist.jsp

```
<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
```

```

<title>Insert title here</title>
</head>
<body>

<h1>Product List</h1>
<table border="1">
<tr>
<th>ID</th>
<th>Name</th>
<th>Description</th>
<th>Price</th>
</tr>
<c:forEach var="product" items="${products}">
<tr>
<td>${product.id}</td>
<td>${product.name}</td>
<td>${product.type}</td>
<td>${product.price}</td>
</tr>
</c:forEach>
</table>
</body>
</html>

```

Field	Type	Null	Key
product_id	int	NO	PRI
product_name	varchar(45)	YES	
product_price	int	YES	
product_type	varchar(45)	YES	

PART – B

ABSTRACTION

The **Portrait Selling Platform** is an e-commerce application built using JSP, SQL, and Servlets that enables users to purchase unique portraits. The platform provides an intuitive interface for customers to register, log in, and browse a curated gallery of portraits, each with pricing, descriptions, and customer reviews. With features like a personalized cart, secure purchase confirmations, and user-friendly interfaces for both reviewing and purchasing art, the platform aims to enhance user experience and streamline online art transactions.

INTRODUCTION

The need for efficient and secure e-commerce platforms has grown significantly in the digital age. This project—Portrait Selling Platform—addresses this demand by offering a robust solution for the sale of artwork, specifically portraits. The application’s primary objectives include ensuring smooth user interactions, data consistency, and efficient management of customer transactions. It was developed using JSP for dynamic web pages, SQL for secure data handling, and Servlets to manage back-end interactions. The goal is to provide an easy-to-navigate platform for users interested in purchasing art online, with additional features to manage customer reviews and personalized cart experiences.

Key Features

1. User Authentication and Registration
 - Users can register their accounts and log in securely.
 - Successful registration and login trigger pop-up messages for user confirmation.
2. Portrait Gallery
 - A well-organized gallery displaying available portraits with details such as price, description, and user reviews.
 - Users can view each portrait's information, leave comments, and see reviews from other customers.
3. Cart Management
 - Customers can add portraits to their cart with quantity selection.
 - The cart page includes options to edit items: increase or decrease quantity, and remove items.
 - A “View Cart” button in the gallery provides quick access to the user's cart.
4. Purchase Confirmation
 - After finalizing the cart, users can confirm their purchase.
 - A dedicated confirmation page displays a thank-you message, reassuring the customer of successful purchase initiation.
 - Confirmation details are stored in the database for future reference.
5. Backend Data Management
 - Portraits, customer information, and transactions are securely managed in the database.
 - SQL queries support data retrieval for user login, cart actions, and reviews.

IMPLEMENTATION

1. Technologies Used

- JSP (Java Server Pages): Used to create dynamic web pages for login, gallery display, cart, and purchase confirmation.
- SQL Database: Stores user information, portrait details, reviews, and transaction histories.
- Servlets: Manage server-side processing, connecting JSP pages to the SQL database for user actions like login and purchase.

2. Database Design

- Tables for customers, portraits, reviews, and orders help organize application data effectively.
- The customers table maintains personal data for authentication and identification.
- The portraits table stores information about each artwork, such as price, description, and image URL.
- The reviews table allows users to leave feedback on portraits.
- The orders table holds transaction details, recording completed purchases.

3. Process Flow

- Registration and Login: Users register with their details, then log in to access the platform. Successful logins direct them to the gallery.
- Portrait Browsing and Cart Management: The gallery shows available portraits, where users can add items to their cart. Cart actions allow users to adjust quantities or remove items.
- Purchase and Confirmation: Upon confirming the cart, users receive a thank-you message, and order details are stored in the database.

User Experience

The Portrait Selling Platform prioritizes a seamless and intuitive experience. Each user interaction, from login to purchase, is designed to be straightforward, with clear prompts and feedback. The use of pop-up messages upon registration and login provides real-time confirmations, enhancing the reliability and user satisfaction of the platform. Additionally, the gallery layout mirrors popular e-commerce sites, which makes it easy for users to browse, review, and purchase portraits.

Database Content :

Create database as1;

Use as1;

- Create the portraits table

```
CREATE TABLE portraits (  
    id INT NOT NULL AUTO_INCREMENT,  
    label VARCHAR(255) NOT NULL,  
    price DECIMAL(10, 2) NOT NULL,  
    image_url VARCHAR(255),  
    description TEXT,  
    PRIMARY KEY (id)  
);
```

-- Create the customers table

```
CREATE TABLE customers (  
    id INT NOT NULL AUTO_INCREMENT,  
    username VARCHAR(100) NOT NULL UNIQUE,  
    password VARCHAR(100) NOT NULL,  
    email VARCHAR(100) NOT NULL,  
    whatsapp_number VARCHAR(15),  
    place VARCHAR(100),  
    PRIMARY KEY (id)  
);
```

-- Create the cart table

```
CREATE TABLE cart (  
    id INT NOT NULL AUTO_INCREMENT,  
    customer_id INT NOT NULL,  
    portrait_id INT NOT NULL,  
    quantity INT NOT NULL,  
    PRIMARY KEY (id),  
    FOREIGN KEY (customer_id) REFERENCES customers(id),  
    FOREIGN KEY (portrait_id) REFERENCES portraits(id)  
);
```

-- Create the reviews table

```
CREATE TABLE reviews (  
    id INT NOT NULL AUTO_INCREMENT,  
    portrait_id INT NOT NULL,  
    customer_id INT NOT NULL,  
    review_text TEXT NOT NULL,  
    created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP,  
    PRIMARY KEY (id),  
    FOREIGN KEY (portrait_id) REFERENCES portraits(id),  
    FOREIGN KEY (customer_id) REFERENCES customers(id)  
);
```

```
-- Create the orders table
CREATE TABLE orders (
    order_id INT NOT NULL AUTO_INCREMENT,
    customer_id INT,
    order_date TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
    total_amount DECIMAL(10, 2) NOT NULL,
    PRIMARY KEY (order_id),
    FOREIGN KEY (customer_id) REFERENCES customers(id)
);
```

```
INSERT INTO portraits (label, price, image_url, description) VALUES
('Bluenature', 20.00, 'images/bluenature.jpg', 'A beautiful sunset over a peaceful lake.'),
('Bears', 30.00, 'images/bears.jpg', 'Teedy Bears using canvas board, Acrylic paint'),
('Butterfly', 25.00, 'images/butterfly.jpg', 'Butterfly art piece using Black art pen'),
('Red Women Dress', 35.00, 'images/dress.jpg', 'Women with red using Posterpaints'),
('Heidi', 30.00, 'images/Heidi (2).jpg', 'Heidi cartoon using canvas board, Acrylic paint'),
('MomsLove', 15.00, 'images/momlove.jpg', 'Mom and Baby using black pencils'),
('PinkNature', 25.00, 'images/pinknature.jpg', 'Pink Evening using canvas board, Acrylic paint'),
('Sitarama', 30.00, 'images/sitarama (2).jpg', 'Sita Rama using Poster colors'),
('Evening', 20.00, 'images/evening.jpg', 'Evening with nature and Soulmate using Black Pencils');
```

Servlets :

RegisterServlet.java

```
import java.io.IOException;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import jakarta.servlet.ServletException;
import jakarta.servlet.http.HttpServlet;
import jakarta.servlet.http.HttpServletRequest;
import jakarta.servlet.http.HttpServletResponse;

public class RegisterServlet extends HttpServlet {
    protected void doPost(HttpServletRequest request, HttpServletResponse response) throws
    ServletException, IOException {
        String username = request.getParameter("username");
        String email = request.getParameter("email");
        String password = request.getParameter("password");

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

```

        Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/ASA1", "root", "tiger");

        String query = "INSERT INTO customers (username, email, password) VALUES (?,
?, ?)";
        PreparedStatement stmt = conn.prepareStatement(query);
        stmt.setString(1, username);
        stmt.setString(2, email);
        stmt.setString(3, password);

        stmt.executeUpdate();

        response.sendRedirect("login.jsp");
    } catch (Exception e) {
        e.printStackTrace();
    }
}
}

```

LoginServlet.java

```

import java.io.IOException;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import jakarta.servlet.ServletException;
import jakarta.servlet.http.HttpServlet;
import jakarta.servlet.http.HttpServletRequest;
import jakarta.servlet.http.HttpServletResponse;

public class LoginServlet extends HttpServlet {
    protected void doPost(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {
        String username = request.getParameter("username");
        String password = request.getParameter("password");
        String url = "jdbc:mysql://localhost:3306/ASA1";
        String user = "root";
        String pass = "tiger";

        try {
            Class.forName("com.mysql.cj.jdbc.Driver");
            Connection conn = DriverManager.getConnection(url, user, pass);
            String sql = "SELECT id FROM customers WHERE username = ? AND password =
?";
            PreparedStatement pstmt = conn.prepareStatement(sql);
            pstmt.setString(1, username);

```

```

        pstmt.setString(2, password);

        ResultSet rs = pstmt.executeQuery();

        if (rs.next()) {
            int customerId = rs.getInt("id");
            // Redirect to gallery page with customer_id
            response.sendRedirect("gallery.jsp?customer_id=" + customerId);
        } else {
            response.sendRedirect("login.jsp?error=Invalid username or password.");
        }
    } catch (Exception e) {
        e.printStackTrace();
        response.sendRedirect("login.jsp?error=An error occurred. Please try again.");
    }
}
}

```

ConfirmPurchase.java

```

import java.io.IOException;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;

import jakarta.servlet.ServletException;
import jakarta.servlet.http.HttpServlet;
import jakarta.servlet.http.HttpServletRequest;
import jakarta.servlet.http.HttpServletResponse;

public class ConfirmPurchase extends HttpServlet {
    protected void doPost(HttpServletRequest request, HttpServletResponse response) throws
    ServletException, IOException {
        String customerIdParam = request.getParameter("customer_id");

        if (customerIdParam == null || customerIdParam.isEmpty()) {
            response.sendError(HttpServletResponse.SC_BAD_REQUEST, "Customer ID is
missing.");
            return;
        }

        int customerId;
        try {
            customerId = Integer.parseInt(customerIdParam);
        } catch (NumberFormatException e) {

```

```

        response.sendError(HttpServletResponse.SC_BAD_REQUEST, "Invalid Customer
ID.");
    }
    return;
}

// Database connection details
String url = "jdbc:mysql://localhost:3306/ASA1";
String user = "root";
String password = "tiger";

Connection conn = null;
PreparedStatement pstmt = null;
ResultSet rs = null;
double totalAmount = 0;

try {
    // Register the JDBC driver
    Class.forName("com.mysql.cj.jdbc.Driver");
    conn = DriverManager.getConnection(url, user, password);

    // Calculate the total amount from the cart
    String totalQuery = "SELECT SUM(p.price * c.quantity) AS total FROM cart c JOIN
portraits p ON c.portrait_id = p.id WHERE c.customer_id = ?";
    pstmt = conn.prepareStatement(totalQuery);
    pstmt.setInt(1, customerId);
    rs = pstmt.executeQuery();

    if (rs.next()) {
        totalAmount = rs.getDouble("total");
    }

    // Insert order into the database with total amount
    String insertOrderQuery = "INSERT INTO orders (customer_id, total_amount)
VALUES (?, ?)";
    pstmt = conn.prepareStatement(insertOrderQuery);
    pstmt.setInt(1, customerId);
    pstmt.setDouble(2, totalAmount);
    pstmt.executeUpdate();

    // Clear the cart after purchase
    String clearCartQuery = "DELETE FROM cart WHERE customer_id = ?";
    pstmt = conn.prepareStatement(clearCartQuery);
    pstmt.setInt(1, customerId);
    pstmt.executeUpdate();

    // Set confirmation message in the request attribute

```

```

        request.setAttribute("confirmationMessage", "Thank you for confirming your
purchase!");
        request.setAttribute("customerId", customerId);

        // Forward to confirmation JSP
        request.getRequestDispatcher("ConfirmPurchase.jsp").forward(request, response);

    } catch (ClassNotFoundException e) {
        response.getWriter().println("MySQL Driver not found: " + e.getMessage());
    } catch (SQLException e) {
        response.getWriter().println("Database error: " + e.getMessage());
    } finally {
        try {
            if (rs != null) rs.close();
            if (pstmt != null) pstmt.close();
            if (conn != null) conn.close();
        } catch (SQLException e) {
            e.printStackTrace();
        }
    }
}
}
}

```

JSP Pages:

frontpage.jsp

```

<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-
8"%>
<!DOCTYPE html>
<html>
<head>
    <title>Welcome to the Colorful World!</title>
    <style>
        /* General Reset */
        * {
            margin: 0;
            padding: 0;
            box-sizing: border-box;
            font-family: 'Arial', sans-serif;
        }

    </style>
</head>
<body>
    <div class="overlay"></div> <!-- Overlay for better text visibility -->
</div>

```



```

    <h1>Welcome to the Colorful World!</h1>
    <p>Let your creativity shine in the world of art!</p>
    <div class="options">
        <a href="register.jsp">Register</a>
        <a href="login.jsp">Login</a>
    </div>
</div>

<!-- Glowing Circles for aesthetic design -->
<div class="glow-circle glow-1"></div>
<div class="glow-circle glow-2"></div>
<div class="glow-circle glow-3"></div>
<div class="glow-circle glow-4"></div>

</body>
</html>

```

register.jsp

```

<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Customer Registration</title>
    <style>
        /* General Reset */
        * {
            margin: 0;
            padding: 0;
            box-sizing: border-box;
            font-family: 'Arial', sans-serif;
        }

        /* Background with Flower Effect */
        body {
            background: linear-gradient(135deg, #ff6b6b, #f7c94c, #6bc8c7, #a86ef2);
            background-size: 400% 400%;
            animation: gradient 15s ease infinite;
            color: #333;
            display: flex;
            justify-content: center;
            align-items: center;
            height: 100vh;
        }
    </style>

```

```

    position: relative;
    overflow: hidden;
}

/* Flower Pattern */
body::before {
    content: "";
    position: absolute;
    top: 0;
    left: 0;
    width: 100%;
    height: 100%;
    background: url('data:image/svg+xml;utf8,<svg
xmlns="http://www.w3.org/2000/svg" width="100" height="100"><circle cx="50" cy="50"
r="40" fill="rgba(255, 255, 255, 0.1)" /><path d="M50,15 Q60,25 70,15 Q80,25 70,35
Q80,45 70,55 Q80,65 70,75 Q60,65 50,75 Q40,65 30,75 Q20,65 30,55 Q20,45 30,35 Q20,25
30,15 Q40,25 50,15" fill="rgba(255, 0, 0, 0.05)" /><path d="M50,85 Q40,75 30,85 Q20,75
30,65 Q20,55 30,45 Q20,35 30,25 Q40,35 50,25 Q60,35 70,25 Q80,35 70,45 Q80,55 70,65
Q80,75 70,85 Q60,75 50,85" fill="rgba(0, 0, 255, 0.05)" /></svg>') repeat;
    z-index: -1;
}

</style>
</head>
<body>
<div>
<h1>Welcome to the Colorful World!</h1>
<h2>Customer Registration</h2>
<form action="RegisterServlet" method="post">
<div class="form-group">
<label for="username">Username:</label>
<input type="text" id="username" name="username" required>
</div>
<div class="form-group">
<label for="email">Email:</label>
<input type="email" id="email" name="email" required>
</div>
<div class="form-group">
<label for="password">Password:</label>
<input type="password" id="password" name="password" required>
</div>
<button type="submit">Register</button>
</form>
<div class="quote">Paint the World in the Colors of your Love!</div>
</div>

```

```
</body>
</html>
```

login.jsp

```
<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Login Page</title>
  <style>
    /* General Reset */
    * {
      margin: 0;
      padding: 0;
      box-sizing: border-box;
    }

    /* Background with Gradient and Flower Pattern */
    body {
      font-family: Arial, sans-serif;
      background: linear-gradient(135deg, #ff6b6b, #6bc8c7);
      background-size: 400% 400%;
      animation: gradient 15s ease infinite;
      display: flex;
      justify-content: center;
      align-items: center;
      height: 100vh;
      position: relative;
      overflow: hidden;
    }

    /* Flower Pattern */
    body::before {
      content: "";
      position: absolute;
      top: 0;
      left: 0;
      width: 100%;
      height: 100%;
      background: url('data:image/svg+xml;utf8,<svg
xmlns="http://www.w3.org/2000/svg" width="100" height="100"><circle cx="50" cy="50"
r="40" fill="rgba(255, 255, 255, 0.1)" /><path d="M50,15 Q60,25 70,15 Q80,25 70,35
```

```

Q80,45 70,55 Q80,65 70,75 Q60,65 50,75 Q40,65 30,75 Q20,65 30,55 Q20,45 30,35 Q20,25
30,15 Q40,25 50,15" fill="rgba(255, 0, 0, 0.05)"/><path d="M50,85 Q40,75 30,85 Q20,75
30,65 Q20,55 30,45 Q20,35 30,25 Q40,35 50,25 Q60,35 70,25 Q80,35 70,45 Q80,55 70,65
Q80,75 70,85 Q60,75 50,85" fill="rgba(0, 0, 255, 0.05)"/></svg>') repeat;
    z-index: -1;
}
</style>
</head>
<body>
    <div class="login-container">
        <h2>Login</h2>

        <%
            String errorMessage = request.getParameter("error");
            if (errorMessage != null) {
                %>
                <div class="error"><%= errorMessage %></div>
                <%
            }
        %>

        <form action="LoginServlet" method="post">
            <input type="text" name="username" placeholder="Username" required>
            <input type="password" name="password" placeholder="Password" required>
            <button type="submit">Login</button>
        </form>
        <p>Don't have an account? <a href="register.jsp" style="color: #ff6b6b;">Register
here</a>.</p>
    </div>
</body>
</html>

```

galler.jsp

```

<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-
8"%>
<%@ page import="java.sql.*" %>
<!DOCTYPE html>
<html>
<head>
    <title>Portrait Gallery</title>
    <style>
        body {
            font-family: Arial, sans-serif;
            background-color: #87CEEB;
            padding: 20px;

```

```

        color: #333;
    }
    .logout-button, .cart-button, .submit-button {
        background-color: #ff66b3;
        border: none;
        color: white;
        padding: 10px 15px;
        font-size: 16px;
        cursor: pointer;
        border-radius: 5px;
        margin-top: 10px;
    }
    .logout-button:hover, .cart-button:hover, .submit-button:hover {
        background-color: #ff3385;
    }
    h2 {
        text-align: center;
        color: #e91e63;
    }
}
</style>
<script>
    function openModal(imageUrl) {
        document.getElementById("modal").style.display = "block";
        document.getElementById("modal-image").src = imageUrl;
    }
    function closeModal() {
        document.getElementById("modal").style.display = "none";
    }
</script>
</head>
<body>
    <form action="login.jsp">
        <button class="logout-button" type="submit">Logout</button>
    </form>

    <h2>Portrait Gallery</h2>

    <div class="portrait-container">
    <%
        String customerIdParam = request.getParameter("customer_id");
        Integer customerId = null;

        if (customerIdParam != null) {
            try {
                customerId = Integer.parseInt(customerIdParam);

```

```

        } catch (NumberFormatException e) {
            out.println("<p class='error'>Invalid customer ID. Please <a href='login.jsp'>log
in</a>.</p>");
        }
    } else {
        out.println("<p class='error'>Please <a href='login.jsp'>log in</a> to view the
gallery.</p>");
    }

    if (customerId != null) {
        String url = "jdbc:mysql://localhost:3306/ASA1";
        String user = "root";
        String password = "tiger";
        Connection conn = null;
        Statement stmt = null;
        ResultSet rs = null;

        try {
            conn = DriverManager.getConnection(url, user, password);
            stmt = conn.createStatement();
            rs = stmt.executeQuery("SELECT * FROM portraits");

            int count = 0;
            while (rs.next()) {
                if (count % 2 == 0) {
                    out.println("<div class='row'>");
                }

                int portraitId = rs.getInt("id");
                String label = rs.getString("label");
                String price = rs.getString("price");
                String description = rs.getString("description");
                String imageUrl = rs.getString("image_url");

%>
                <div class="portrait">
                    "
onclick="openModal('<%= imageUrl %>')">
                    <div class="portrait-details">
                        <h3><%= label %></h3>
                        <p class="price" style="color: navy; font-weight: bold;">Price: Rs<%=
price %></p>
                        <p><%= description %></p>

                        <!-- Add to Cart Form -->
                        <form action="AddToCart" method="post">
                            <input type="hidden" name="portrait_id" value="<%= portraitId %>">

```

```

        <input type="hidden" name="customer_id" value="<%= customerId
%>">

        <label>Quantity:</label>
        <input type="number" name="quantity" value="1" min="1">
        <button class="submit-button" type="submit">Add to Cart</button>
    </form>

    <!-- Review Section -->
    <h4>Reviews:</h4>
    <div class="reviews">
        <%
            PreparedStatement reviewStmt = null;
            ResultSet reviewRs = null;
            try {
                String reviewQuery = "SELECT r.review_text, r.created_at,
c.username AS customer_name " +
                                "FROM reviews r JOIN customers c ON r.customer_id
= c.id " +
                                "WHERE r.portrait_id = ?";
                reviewStmt = conn.prepareStatement(reviewQuery);
                reviewStmt.setInt(1, portraitId);
                reviewRs = reviewStmt.executeQuery();

                int reviewCount = 0;
                while (reviewRs.next() && reviewCount < 10) {
                    String reviewText = reviewRs.getString("review_text");
                    String reviewerName = reviewRs.getString("customer_name");
                    <%>
                        <p class="review-text"><strong><%= reviewerName
%>:</strong> <%= reviewText %> <span style="font-size: 0.7em; color: #000080;">(Posted
on <%= reviewRs.getTimestamp("created_at") %>)</span></p>
                        <%
                            reviewCount++;
                        }
                    } catch (SQLException e) {
                        out.println("<p class='error'>Error fetching reviews: " +
e.getMessage() + "</p>");
                    } finally {
                        if (reviewRs != null) try { reviewRs.close(); } catch (SQLException
e) { }

                        if (reviewStmt != null) try { reviewStmt.close(); } catch
(SQLException e) { }
                    }
                }
            } catch (SQLException e) { }
        %>
    </div>

```

```

        <h4>Add a Review:</h4>
        <form action="SubmitReviewServlet" method="post" class="review-
form">
            <input type="hidden" name="customer_id" value="<%= customerId
%>">
            <input type="hidden" name="portrait_id" value="<%= portraitId %>">
            <textarea name="review_text" required></textarea>
            <button class="submit-button" type="submit">Submit Review</button>
        </form>
    </div>
</div>
<%
    count++;
    if (count % 2 == 0) {
        out.println("</div>");
    }
}
if (count % 2 != 0) {
    out.println("</div>");
}
} catch (SQLException e) {
    out.println("<p class='error'>Error: " + e.getMessage() + "</p>");
} finally {
    if (rs != null) try { rs.close(); } catch (SQLException e) { }
    if (stmt != null) try { stmt.close(); } catch (SQLException e) { }
    if (conn != null) try { conn.close(); } catch (SQLException e) { }
}
}
%>
</div>

<form action="cart.jsp" method="get" style="margin-top: 20px;">
    <input type="hidden" name="customer_id" value="<%= customerId %>">
    <button class="cart-button" type="submit">View Cart</button>
</form>

<!-- Modal for enlarged image -->
<div id="modal" class="modal" onclick="closeModal()">
    <span class="modal-close" onclick="closeModal()">&times;</span>
    <img class="modal-content" id="modal-image">
</div>
</body>
</html>

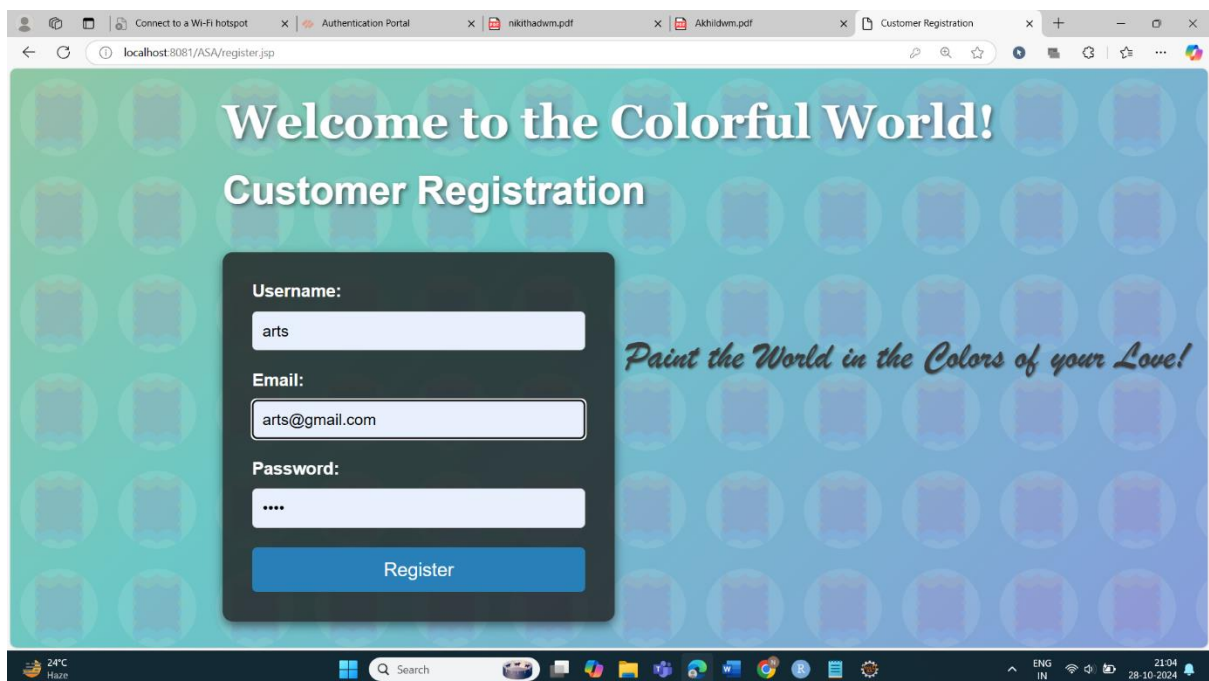
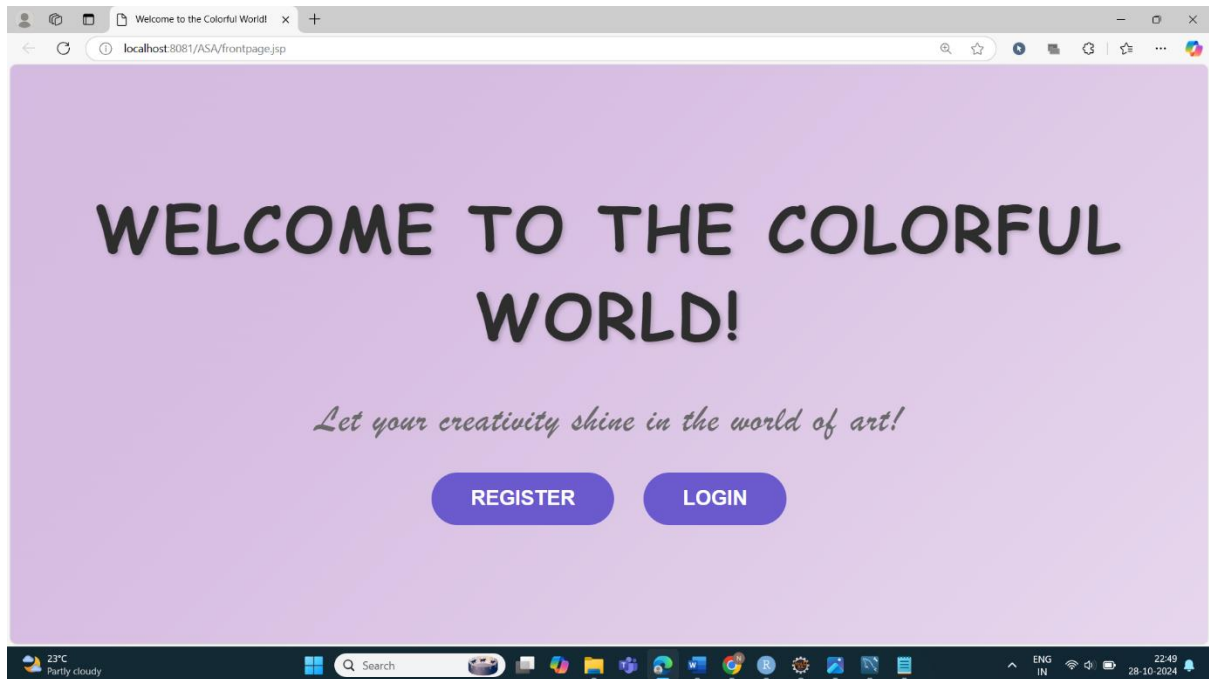
```

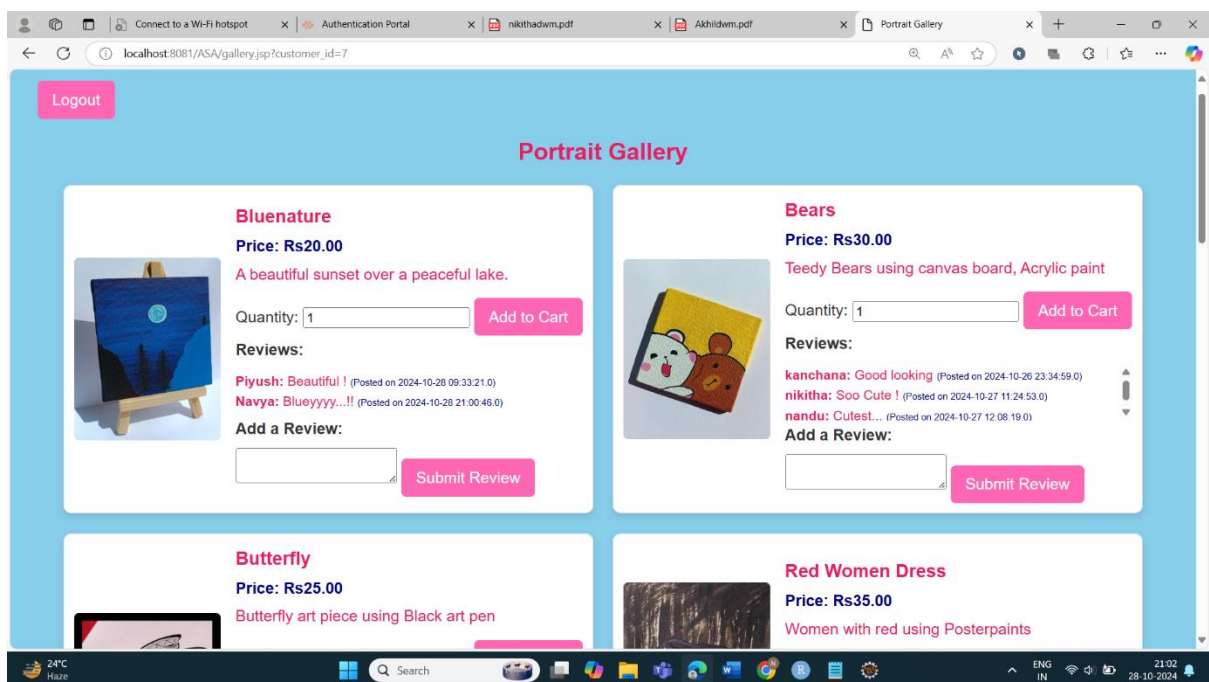
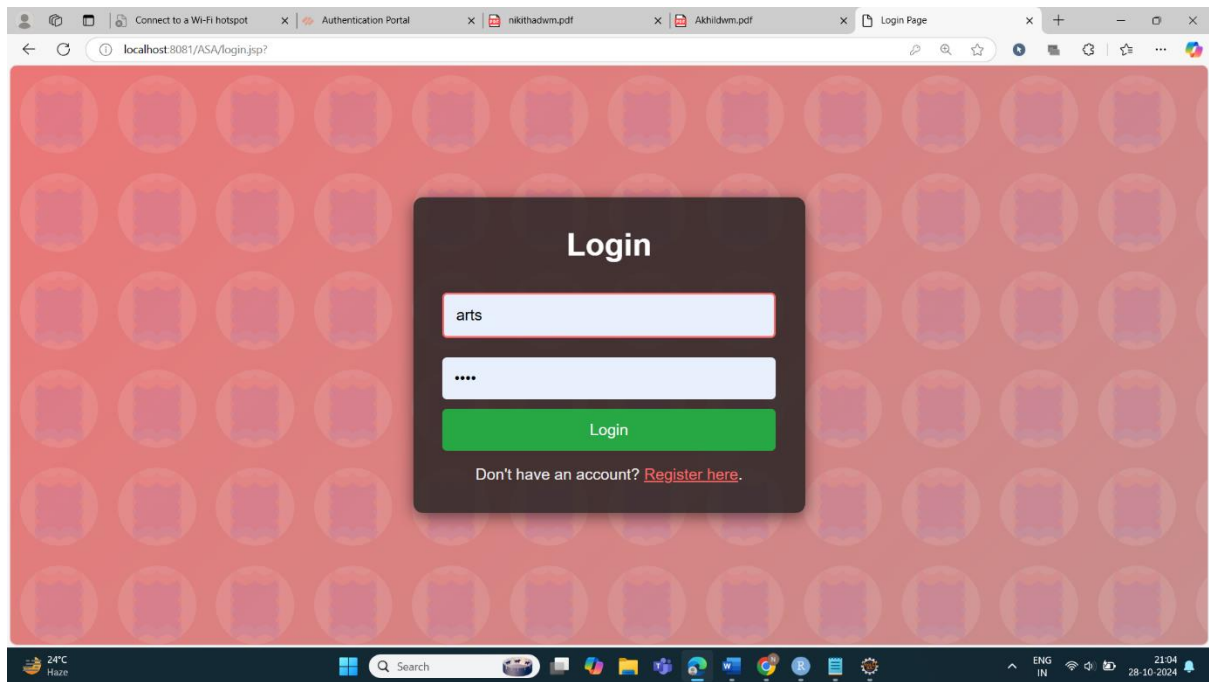

ConfirmPurchase.jsp

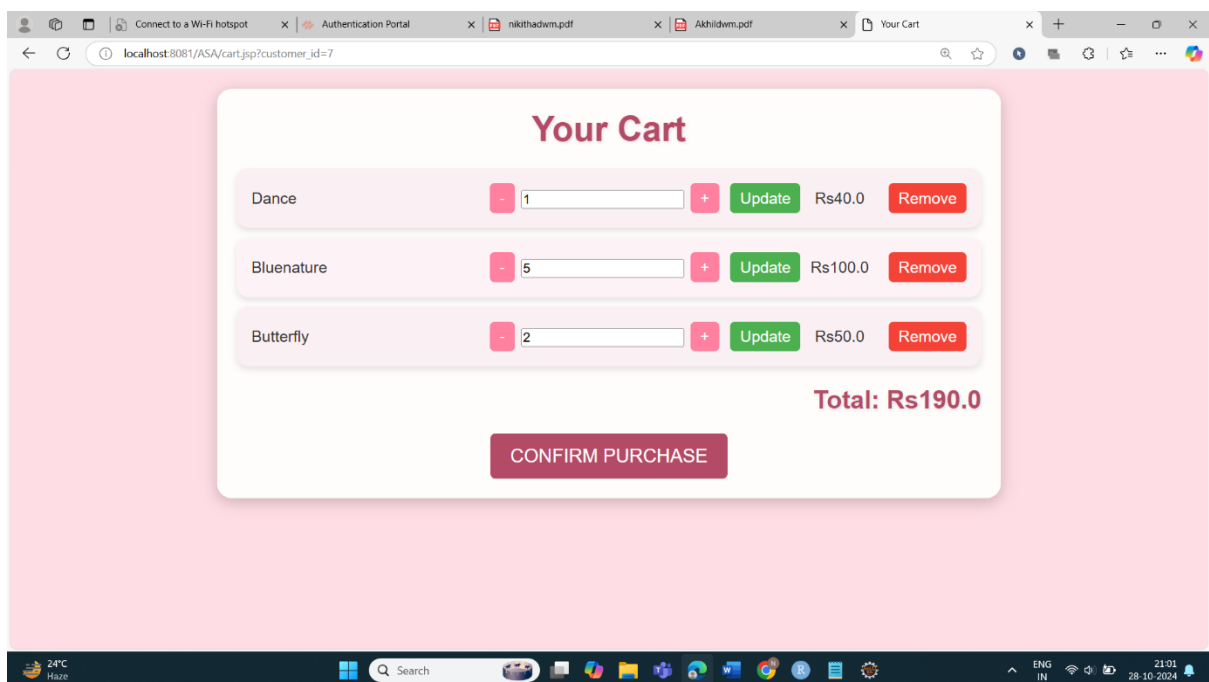
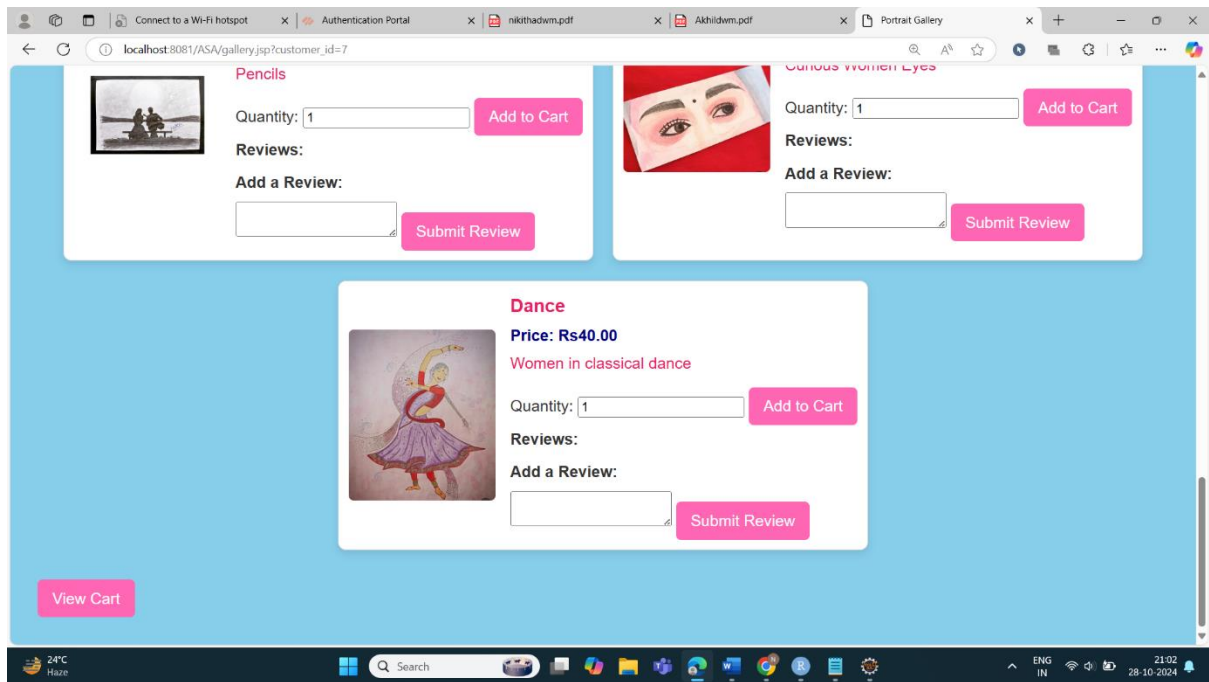
```
<%@ page contentType="text/html; charset=UTF-8" language="java" %>
<%
    String confirmationMessage = (String) request.getAttribute("confirmationMessage");
    Integer customerId = (Integer) request.getAttribute("customerId"); // Assuming you keep it
    as Integer
%>

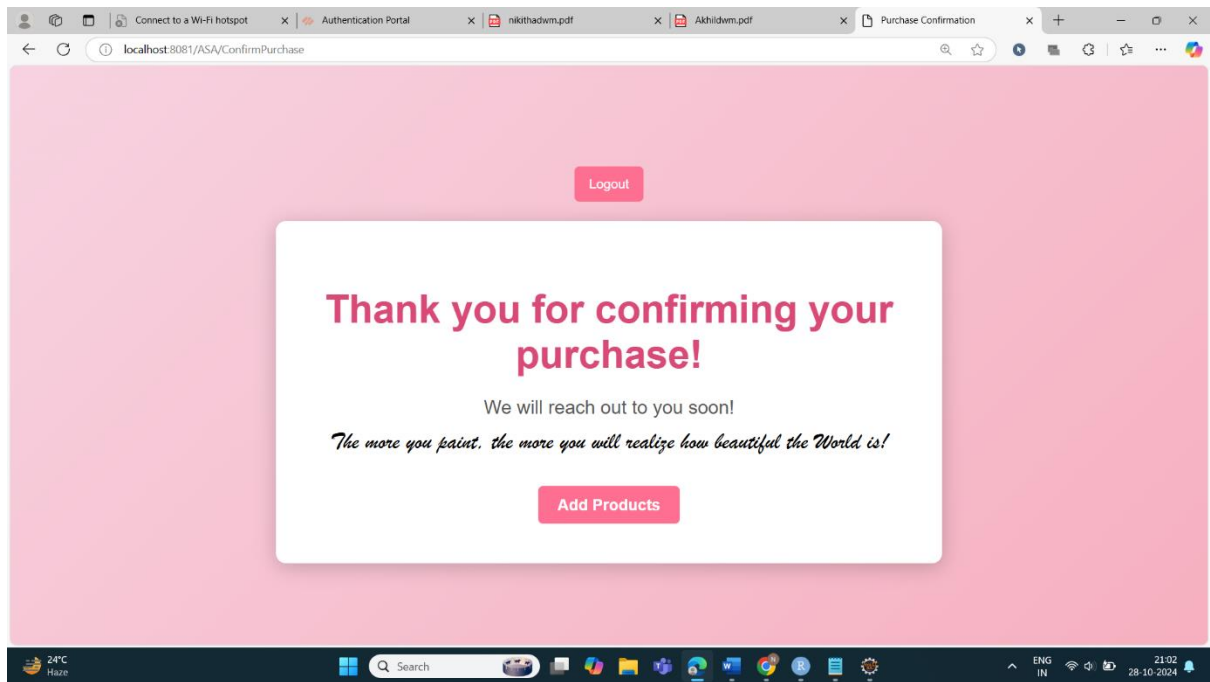
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Purchase Confirmation</title>
    <link href="https://fonts.googleapis.com/css2?family=Patrick+Hand&display=swap"
rel="stylesheet"> <!-- Import cursive font -->
    <style>
        body {
            background: linear-gradient(135deg, #f8d3e1, #f6b0c0); /* Light pink gradient */
        }
    </style>
</head>
<body>
    <form action="login.jsp">
        <button type="submit" class="logout-button">Logout</button>
    </form>
    <div class="container">
        <h1><%= confirmationMessage != null ? confirmationMessage : "Confirmation
message not available." %></h1>
        <p>We will reach out to you soon!</p> <!-- Caption -->
        <p class="cursive-caption">The more you paint, the more you will realize how beautiful
the World is!</p> <!-- New Caption -->
        <a href='gallery.jsp?customer_id=<%= customerId != null ? customerId.toString() : "0"
%>'>Add Products</a> <!-- Link to gallery.jsp with customer_id -->
    </div>
</body>
</html>
```

Output :









id	customer_id	portrait_id	quantity
22	9	1	1
23	9	6	1
24	9	5	1

Cart Details

id	username	password	email
1	kanchana	123	arts@gmail.com
2	arts	123	arts@gmail.com
3	nikitha	123	nikitha@gmail.com
4	nandini	123	arts@gmail.com
5	nandu	123	nikitha@gmail.com
6	Piyush	123	arts@gmail.com
7	Navya	123	arts@gmail.com
9	Nikitha26	123	arts@gmail.com

Customer Registered

id	label	price	image_url	description
1	Bluenature	20.00	images/bluenature.jpg	A beautiful sunset over a peaceful lake.
2	Bears	30.00	images/bears.jpg	Teedy Bears using canvas board, Acrylic paint.
3	Butterfly	25.00	images/butterfly.jpg	Butterfly art piece using Black art pen
4	Red Women Dress	35.00	images/dress.jpg	Women with red using Poster paints
5	Heidi	30.00	images/Heidi (2).jpg	Heidi cartoon using canvas board, Acrylic paint
6	MomLove	15.00	images/momlove.jpg	Mom and Baby using black pencils
7	PinkNature	25.00	images/pinknature.jpg	Pink Evening using canvas board, Acrylic paint
8	Sitarama	30.00	images/sitarama (2).jpg	Sita Rama using Poster colors
9	Evening	20.00	images/evening.jpg	Evening with nature and Soulmate using Black P...
10	Eyes	30.00	images/eyes.jpg	Curious Women Eyes
11	Dance	40.00	images/dance.jpg	Women in classical dance

Portraits Inserted

id	portrait_id	customer_id	review_text	created_at
1	2	1	Good looking	2024-10-26 23:34:59
6	2	3	Soo Cute !	2024-10-27 11:24:53
7	7	4	beautiful !	2024-10-27 11:35:02
8	3	3	good	2024-10-27 11:35:59
9	5	3	cute	2024-10-27 11:36:18
10	8	5	Jai Shree Ram	2024-10-27 11:39:05
11	2	5	Cutest...	2024-10-27 12:08:19
12	1	6	Beautiful !	2024-10-28 09:33:21
13	1	7	Blueyyyy...!!	2024-10-28 21:00:46

Customer Reviews

order_id	customer_id	order_date	total_amount
1	1	2024-10-26 23:40:41	85.00
2	1	2024-10-27 10:41:38	30.00
3	1	2024-10-27 10:58:38	240.00
4	1	2024-10-27 10:59:08	20.00
5	3	2024-10-27 11:21:30	20.00
6	3	2024-10-27 11:25:23	50.00
7	4	2024-10-27 11:35:21	30.00
8	5	2024-10-27 11:39:23	50.00
9	6	2024-10-28 09:34:06	90.00
10	7	2024-10-28 21:02:01	190.00
11	7	2024-10-28 21:03:39	0.00

Customer Purchase Confirm

CONCLUSION

This project demonstrates the development of a user-friendly e-commerce platform tailored for a portrait gallery. Through a combination of JSP, SQL, and servlet technologies, it achieves a structured and interactive user experience, covering essential e-commerce functionalities from registration to final purchase. The structured database enables seamless data flow, while the user interface provides easy navigation and interaction. This project successfully bridges user engagement with backend data management, ensuring a reliable and efficient online shopping experience.