**Practical No.6**

**Prac 6.1**

**Aim:** Create a Telephone directory using JSP and store all the information within a database, so that later could be retrieved as per the requirement.

Code:

Create a database and create table

CREATE DATABASE PhoneDirectory;

USE PhoneDirectory;

CREATE TABLE Contacts (

id INT AUTO\_INCREMENT PRIMARY KEY,

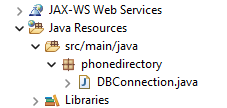
name VARCHAR(255) NOT NULL,

phone VARCHAR(20),

email VARCHAR(255)

);

Create a java class in



DBConnection.java:

package phonedirectory;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.SQLException;

public class DBConnection {

public static Connection getConnection() throws SQLException {

String url = "jdbc:mysql://localhost:3306/telephone\_directory";

String username = "root";

String password = "password";

Connection connection = null;

try {

connection = DriverManager.getConnection(url, username, password);

} catch (SQLException e) {

e.printStackTrace();

throw e; // You may want to handle this exception more gracefully in a real application

}

return connection;

}

}

Add\_contact.jsp

<%@ page language=*"java"* contentType=*"text/html; charset=ISO-8859-1"*

pageEncoding=*"ISO-8859-1"*%>

<%@ page import=*"java.sql.\*"* %>

<%@ page import=*"phonedirectory.DBConnection"* %><%

Connection connection = DBConnection.getConnection();

if (request.getMethod().equals("POST")) {

String name = request.getParameter("name");

String phone = request.getParameter("phone");

String email = request.getParameter("email");

if (name != null && phone != null && email != null) {

try {

// Insert the new contact into the database

String insertQuery = "INSERT INTO contacts (name, phone, email) VALUES (?, ?, ?)";

PreparedStatement preparedStatement = connection.prepareStatement(insertQuery);

preparedStatement.setString(1, name);

preparedStatement.setString(2, phone);

preparedStatement.setString(3, email);

preparedStatement.executeUpdate();

preparedStatement.close();

} catch (SQLException e) {

e.printStackTrace();

}

}

}

// Close the database connection

if (connection != null) {

connection.close();

}

%>

<html>

<body>

<h1>Add a New Contact</h1>

<form action=*"add\_contact.jsp"* method=*"post"*>

<label>Name: <input type=*"text"* name=*"name"*></label><br>

<label>Phone: <input type=*"text"* name=*"phone"*></label><br>

<label>Email: <input type=*"text"* name=*"email"*></label><br>

<input type=*"submit"* value=*"Add Contact"*>

<a href=*"display\_contacts.jsp"*>show data</a>

</form>

</body>

</html>

Display\_contact.jsp:

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

<%@ page import=*"java.sql.\*"* %>

<%@ page import=*"phonedirectory.DBConnection"* %>

<!DOCTYPE html>

<html>

<head>

<title>Display Users</title>

</head>

<body>

<h1>Registered Users</h1>

<table border=*"1"*>

<tr>

<th>User ID</th>

<th>name</th>

<th>phone</th>

<th>Email</th>

<th>Update</th>

</tr>

<%

try {

// Establish a database connection

Connection connection = DBConnection.getConnection();

// Create and execute an SQL SELECT statement

String selectQuery = "SELECT \* FROM contacts";

Statement statement = connection.createStatement();

ResultSet resultSet = statement.executeQuery(selectQuery);

while (resultSet.next()) {

int userId = resultSet.getInt("id");

String username = resultSet.getString("name");

String phone = resultSet.getString("phone");

String email = resultSet.getString("email");

%>

<tr>

<td><%= userId %></td>

<td><%= username %></td>

<td><%= phone %></td>

<td><%= email %></td>

<td>

<a href=*"edit\_contact.jsp?id=*<%= userId %>*"*>Edit</a>

<a href=*"delete\_contact.jsp?id=*<%= userId %>*"*>Delete</a>

</td>

</tr>

<%

}

resultSet.close();

statement.close();

connection.close();

} catch (SQLException e) {

// Handle database errors here

out.println("Database error: " + e.getMessage());

}

%>

</table>

</body>

</html>

Edit\_contacts.jsp:

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

<%@ page import=*"java.sql.\*"* %>

<%@ page import=*"phonedirectory.DBConnection"* %>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"UTF-8"*>

<title>Edit Contact</title>

</head>

<body>

<h1>Edit Contact</h1>

<%

Connection connection = null;

PreparedStatement preparedStatement = null;

ResultSet resultSet = null;

try {

// Establish a database connection

connection = DBConnection.getConnection();

// Check if an ID parameter is provided in the URL

String idParam = request.getParameter("id");

int contactId = -1;

if (idParam != null) {

contactId = Integer.parseInt(idParam);

// Retrieve the contact's current details

String selectQuery = "SELECT \* FROM contacts WHERE id=?";

preparedStatement = connection.prepareStatement(selectQuery);

preparedStatement.setInt(1, contactId);

resultSet = preparedStatement.executeQuery();

if (resultSet.next()) {

String currentName = resultSet.getString("name");

String currentPhone = resultSet.getString("phone");

String currentEmail = resultSet.getString("email");

%>

<form action=*"update\_contact.jsp"* method=*"post"*>

<input type=*"hidden"* name=*"id"* value=*"*<%= contactId %>*"*>

Name: <input type=*"text"* name=*"name"* value=*"*<%= currentName %>*"*><br>

Phone: <input type=*"text"* name=*"phone"* value=*"*<%= currentPhone %>*"*><br>

Email: <input type=*"text"* name=*"email"* value=*"*<%= currentEmail %>*"*><br>

<input type=*"submit"* value=*"Update Contact"*>

</form>

<%

}

}

} catch (SQLException e) {

e.printStackTrace();

} finally {

// Close database resources individually

if (resultSet != null) resultSet.close();

if (preparedStatement != null) preparedStatement.close();

if (connection != null) connection.close();

}

%>

</body>

</html>

update \_contact.jsp:

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

<%@ page import=*"java.sql.\*"* %>

<%@ page import=*"phonedirectory.DBConnection"* %>

<!DOCTYPE html>

<html>

<head>

<title>Update Contact</title>

</head>

<body>

<h1>Update Contact</h1>

<%

Connection connection = null;

PreparedStatement preparedStatement = null;

try {

// Establish a database connection

connection = DBConnection.getConnection();

// Get the data submitted from the form

int contactId = Integer.parseInt(request.getParameter("id"));

String newName = request.getParameter("name");

String newPhone = request.getParameter("phone");

String newEmail = request.getParameter("email");

// Update the contact's information in the database

String updateQuery = "UPDATE contacts SET name=?, phone=?, email=? WHERE id=?";

preparedStatement = connection.prepareStatement(updateQuery);

preparedStatement.setString(1, newName);

preparedStatement.setString(2, newPhone);

preparedStatement.setString(3, newEmail);

preparedStatement.setInt(4, contactId);

preparedStatement.executeUpdate();

%>

<p>Contact updated successfully.</p>

<a href=*"display\_contacts.jsp"*>Back to Contacts</a>

<%

} catch (SQLException e) {

e.printStackTrace();

%>

<p>An error occurred while updating the contact: <%= e.getMessage() %></p>

<%

} finally {

// Close database resources individually

if (preparedStatement != null) preparedStatement.close();

if (connection != null) connection.close();

}

%>

</body>

</html>

Delete\_contact.jsp:

<%@ page language=*"java"* contentType=*"text/html; charset=ISO-8859-1"*

pageEncoding=*"ISO-8859-1"*%>

<%@ page import=*"java.sql.\*"* %>

<%@ page import=*"phonedirectory.DBConnection"* %>

<%

Connection connection = DBConnection.getConnection();

// Check if an ID parameter is provided in the URL

String idParam = request.getParameter("id");

if (idParam != null) {

int contactId = Integer.parseInt(idParam);

try {

// Delete the contact from the database

String deleteQuery = "DELETE FROM contacts WHERE id=?";

PreparedStatement preparedStatement = connection.prepareStatement(deleteQuery);

preparedStatement.setInt(1, contactId);

preparedStatement.executeUpdate();

preparedStatement.close();

} catch (SQLException e) {

e.printStackTrace();

}

}

// Close the database connection

if (connection != null) {

connection.close();

}

%>

<html>

<body>

<h1>Contact Deleted</h1>

<p>The contact has been deleted successfully.</p>

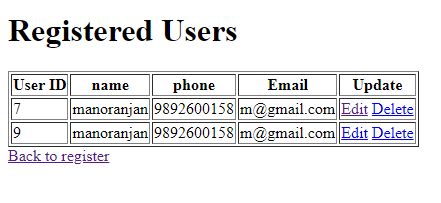
<a href=*"display\_contacts.jsp"*>Back to Contacts</a>

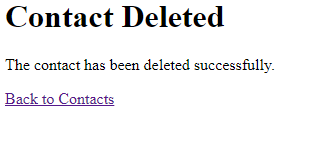
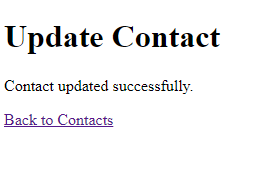
</body>

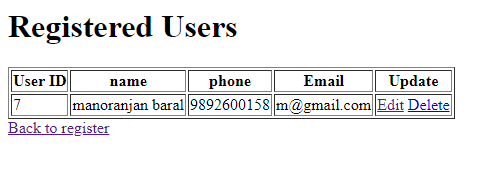
</html>

Output:

****

****

****

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**Prac 6.2**

**Aim:** Write a JSP page to display the Registration form.

Code:

Register.jsp:

<!DOCTYPE html>

<html>

<head>

<title>Registration Form</title>

</head>

<body>

<h1>Registration Form</h1>

<form action=*"conn.jsp"* method=*"post"*>

<label for=*"username"*>Username:</label>

<input type=*"text"* id=*"username"* name=*"username"* required><br><br>

<label for=*"email"*>Email:</label>

<input type=*"email"* id=*"email"* name=*"email"* required><br><br>

<label for=*"password"*>Password:</label>

<input type=*"password"* id=*"password"* name=*"password"* required><br><br>

<label for=*"confirmPassword"*>Confirm Password:</label>

<input type=*"password"* id=*"confirmPassword"* name=*"confirmPassword"* required><br><br>

<input type=*"submit"* value=*"Register"* name=*"btn\_add"*>

</form>

</body>

</html>

Conn.jsp:

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

<%@ page import=*"java.sql.\*"* %>

<!DOCTYPE html>

<html>

<head>

<title>Registration Result</title>

</head>

<body>

<h1>Registration Result</h1>

<%

String username = request.getParameter("username");

String email = request.getParameter("email");

String password = request.getParameter("password");

String confirmPassword = request.getParameter("confirmPassword");

**if** (request.getParameter("btn\_add")!=**null**) {

**try** {

// Establish a database connection

String dbUrl = "jdbc:mysql://localhost:3306/penta";

String dbUser = "root";

String dbPassword = "password";

Connection connection = DriverManager.getConnection(dbUrl, dbUser, dbPassword);

// Create and execute an SQL INSERT statement

String insertQuery = "INSERT INTO users (username, email, password) VALUES (?, ?, ?)";

PreparedStatement preparedStatement = connection.prepareStatement(insertQuery);

preparedStatement.setString(1, username);

preparedStatement.setString(2, email);

preparedStatement.setString(3, password);

preparedStatement.executeUpdate();

connection.close();

%>

<p>Registration successful!</p>

<%

} **catch** (SQLException e) {

out.println("Database error: " + e.getMessage());

}

} **else** **if**(request.getParameter("btn\_show")!=**null**){

%>

<p>Passwords do not match. Please try again.</p>

<%

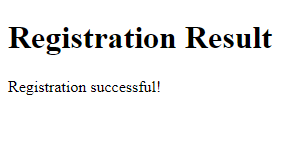
}

%>

</body>

</html>

Output:  

**Prac 6.3**

**Aim:** Write a JSP program to add, delete and display the records from StudentMaster

(RollNo, Name, Semester, Course) table.

**Code:**

DBConnection.java:  
package studentmaster;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.SQLException;

public class DBConnection {

public static Connection getConnection() throws SQLException {

String url = "jdbc:mysql://localhost:3306/studentmaster";

String username = "root";

String password = "password";

Connection connection = null;

try {

connection = DriverManager.getConnection(url, username, password);

} catch (SQLException e) {

e.printStackTrace();

throw e; // You may want to handle this exception more gracefully in a real application

}

return connection;

}

}

Add\_student.jsp

<%@ page language=*"java"* contentType=*"text/html; charset=ISO-8859-1"*

pageEncoding=*"ISO-8859-1"*%>

<%@ page import=*"java.sql.\*"* %>

<%@ page import=*"studentmaster.DBConnection"* %>

<%

Connection connection = DBConnection.getConnection();

**boolean** ia = **false**;

**if** (request.getMethod().equals("POST")) {

String RollNo =request.getParameter("RollNo");

String Name = request.getParameter("Name");

String Semester = request.getParameter("Semester");

String Course = request.getParameter("Course");

**if** (RollNo !=**null** && Name != **null** && Semester != **null** && Course != **null**) {

**try** {

// Insert the new contact into the database

String insertQuery = "INSERT INTO students (RollNo,Name,Semester, Course) VALUES (?, ?, ?,?)";

PreparedStatement preparedStatement = connection.prepareStatement(insertQuery);

preparedStatement.setString(1, RollNo);

preparedStatement.setString(2, Name);

preparedStatement.setString(3, Semester);

preparedStatement.setString(4, Course);

ia = preparedStatement.executeUpdate() > 0;

preparedStatement.close();

} **catch** (SQLException e) {

e.printStackTrace();

}

}

}

// Close the database connection

**if** (connection != **null**) {

connection.close();

}

%>

<html>

<body>

<h1>Add a New student</h1>

<form action=*"add\_student.jsp"* method=*"post"*>

<label>RollNO: <input type=*"number"* name=*"RollNo"*></label><br><br>

<label>Name: <input type=*"text"* name=*"Name"*></label><br><br>

<label>Semester: <input type=*"text"* name=*"Semester"*></label><br><br>

<label>Course: <input type=*"text"* name=*"Course"*></label><br><br>

<input type=*"submit"* value=*"Add Student"*>

<a href=*"display\_student.jsp"*>show data</a>

</form>

<div>

<% **if** (ia) { %>

<p>Data added successfully!</p>

<% } %>

</div>

</body>

</html>

Display\_student.jsp

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

<%@ page import=*"java.sql.\*"* %>

<%@ page import=*"studentmaster.DBConnection"* %>

<!DOCTYPE html>

<html>

<head>

<title>Display Student Info</title>

</head>

<body>

<h1>Registered Students </h1>

<table border=*"1"*>

<tr>

<th>User ID</th>

<th>RollNo</th>

<th>Name</th>

<th>Semester</th>

<th>Course</th>

<th>Update</th>

</tr>

<%

**try** {

// Establish a database connection

Connection connection = DBConnection.getConnection();

// Create and execute an SQL SELECT statement

String selectQuery = "SELECT \* FROM students";

Statement statement = connection.createStatement();

ResultSet resultSet = statement.executeQuery(selectQuery);

**while** (resultSet.next()) {

**int** userId = resultSet.getInt("id");

Integer RollNo=resultSet.getInt("RollNo");

String username = resultSet.getString("Name");

String semester = resultSet.getString("Semester");

String course = resultSet.getString("Course");

%>

<tr>

<td><%= userId %></td>

<td><%= RollNo %></td>

<td><%= username %></td>

<td><%= semester %></td>

<td><%= course %></td>

<td>

<a href=*"edit\_student.jsp?id=*<%= userId %>*"*>Edit</a>

<a href=*"delete\_student.jsp?id=*<%= userId %>*"*>Delete</a>

</td>

</tr>

<%

}

resultSet.close();

statement.close();

connection.close();

} **catch** (SQLException e) {

// Handle database errors here

out.println("Database error: " + e.getMessage());

}

%>

</table><br><br>

Back to register:<a href=*"add\_student.jsp"*>link</a>

</body>

</html>

Edit\_student.jsp:

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

<%@ page import=*"java.sql.\*"* %>

<%@ page import=*"studentmaster.DBConnection"* %>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"UTF-8"*>

<title>Edit Student Info</title>

</head>

<body>

<h1>Edit Student Info</h1>

<%

Connection connection = **null**;

PreparedStatement preparedStatement = **null**;

ResultSet resultSet = **null**;

**try** {

// Establish a database connection

connection = DBConnection.getConnection();

// Check if an ID parameter is provided in the URL

String idParam = request.getParameter("id");

**int** contactId = -1;

**if** (idParam != **null**) {

contactId = Integer.parseInt(idParam);

// Retrieve the contact's current details

String selectQuery = "SELECT \* FROM students WHERE id=?";

preparedStatement = connection.prepareStatement(selectQuery);

preparedStatement.setInt(1, contactId);

resultSet = preparedStatement.executeQuery();

**if** (resultSet.next()) {

Integer RollNo=resultSet.getInt("RollNo");

String username = resultSet.getString("Name");

String semester = resultSet.getString("Semester");

String course = resultSet.getString("Course");

%>

<form action=*"update\_student.jsp"* method=*"post"*>

<input type=*"hidden"* name=*"id"* value=*"*<%= contactId %>*"*>

RollNo: <input type=*"number"* name=*"RollNo"* value=*"*<%= RollNo %>*"*><br><br>

Name: <input type=*"text"* name=*"Name"* value=*"*<%= username %>*"*><br><br>

Semester: <input type=*"text"* name=*"Semester"* value=*"*<%= semester %>*"*><br><br>

Course: <input type=*"text"* name=*"Course"* value=*"*<%= course %>*"*><br><br>

<input type=*"submit"* value=*"Update Student"*>

</form>

<%

}

}

} **catch** (SQLException e) {

e.printStackTrace();

} **finally** {

// Close database resources individually

**if** (resultSet != **null**) resultSet.close();

**if** (preparedStatement != **null**) preparedStatement.close();

**if** (connection != **null**) connection.close();

}

%>

</body>

</html>

Update\_student.jsp:

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

<%@ page import=*"java.sql.\*"* %>

<%@ page import=*"studentmaster.DBConnection"* %>

<!DOCTYPE html>

<html>

<head>

<title>Update Student Info</title>

</head>

<body>

<h1>Update Student Info</h1>

<%

Connection connection = **null**;

PreparedStatement preparedStatement = **null**;

**try** {

// Establish a database connection

connection = DBConnection.getConnection();

// Get the data submitted from the form

**int** contactId = Integer.parseInt(request.getParameter("id"));

String newRollNo =request.getParameter("RollNo");

String newName = request.getParameter("Name");

String newsemester = request.getParameter("Semester");

String newcourse = request.getParameter("Course");

// Update the contact's information in the database

String updateQuery = "UPDATE students SET RollNo=?,Name=?, Semester=?, Course=? WHERE id=?";

preparedStatement = connection.prepareStatement(updateQuery);

preparedStatement.setString(1, newRollNo);

preparedStatement.setString(2, newName);

preparedStatement.setString(3, newsemester);

preparedStatement.setString(4, newcourse);

preparedStatement.setInt(5, contactId);

preparedStatement.executeUpdate();

%>

<p>Student Info updated successfully.</p>

Back to Registered Students:<a href=*"display\_student.jsp"*>link</a>

<%

} **catch** (SQLException e) {

e.printStackTrace();

%>

<p>An error occurred while updating the contact: <%= e.getMessage() %></p>

<%

} **finally** {

// Close database resources individually

**if** (preparedStatement != **null**) preparedStatement.close();

**if** (connection != **null**) connection.close();

}

%>

</body>

</html>

Delete\_student.jsp:

<%@ page language=*"java"* contentType=*"text/html; charset=ISO-8859-1"*

pageEncoding=*"ISO-8859-1"*%>

<%@ page import=*"java.sql.\*"* %>

<%@ page import=*"studentmaster.DBConnection"* %>

<%

Connection connection = DBConnection.getConnection();

// Check if an ID parameter is provided in the URL

String idParam = request.getParameter("id");

**if** (idParam != **null**) {

**int** contactId = Integer.parseInt(idParam);

**try** {

// Delete the contact from the database

String deleteQuery = "DELETE FROM students WHERE id=?";

PreparedStatement preparedStatement = connection.prepareStatement(deleteQuery);

preparedStatement.setInt(1, contactId);

preparedStatement.executeUpdate();

preparedStatement.close();

} **catch** (SQLException e) {

e.printStackTrace();

}

}

// Close the database connection

**if** (connection != **null**) {

connection.close();

}

%>

<html>

<body>

<h1>Contact Deleted</h1>

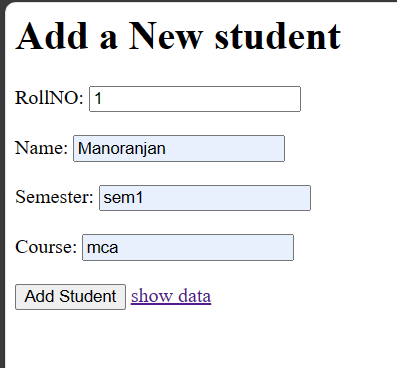
<p>The Student data has been deleted successfully.</p>

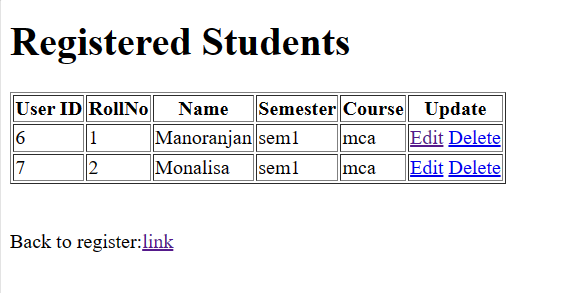
Back to registered students:<a href=*"display\_student.jsp"*>link</a>

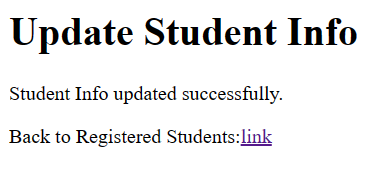
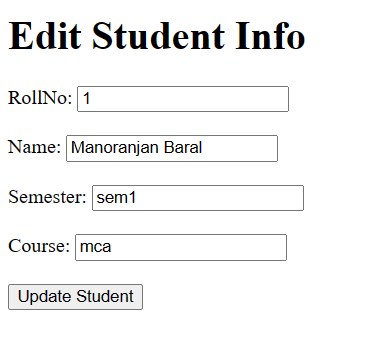
</body>

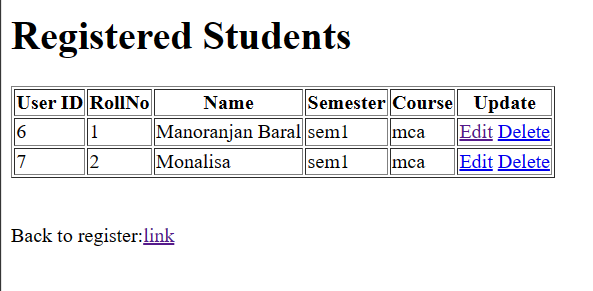
</html>

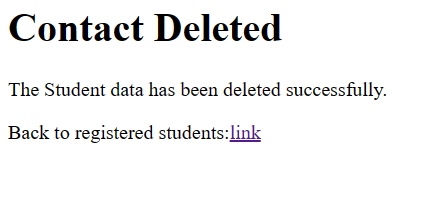
**Output:**

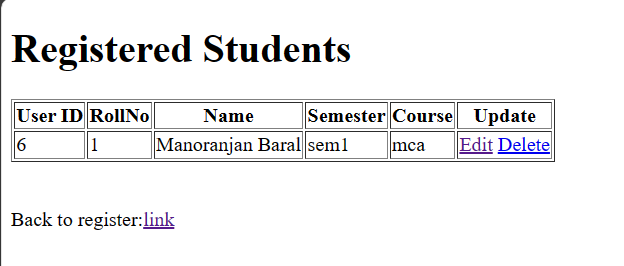


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**Prac 6.4**

Aim: Design loan calculator using JSP which accepts Period of Time (in years) and

Principal Loan Amount. Display the payment amount for each loan and then list the

loan balance and interest paid for each payment over the term of the loan for the

following time period and interest rate:

a. 1 to 7 year at 5.35%

b. 8 to 15 year at 5.5%

c. 16 to 30 year at 5.75%

**Code:**

<!DOCTYPE html>

<html>

<head>

<title>Simple Interest Calculator</title>

</head>

<body>

<h1>Simple Interest Calculator</h1>

<form>

Principal Amount: <input type=*"text"* id=*"principal"* required><br>

Rate of Interest (per annum): <input type=*"text"* id=*"rate"* required><br>

Time (in years): <input type=*"text"* id=*"time"* required><br>

<input type=*"button"* value=*"Calculate"* onclick="calculateSimpleInterest()">

</form>

<p id=*"result"*></p>

<script>

**function** calculateSimpleInterest() {

**var** principal = parseFloat(document.getElementById("principal").value);

**var** rate = parseFloat(document.getElementById("rate").value);

**var** time = parseFloat(document.getElementById("time").value);

**var** simpleInterest = (principal \* rate \* time) / 100;

// Display the result in a traditional way

**var** resultMessage = "Simple Interest: " + simpleInterest;

**var** resultElement = document.getElementById("result");

resultElement.innerHTML = resultMessage;

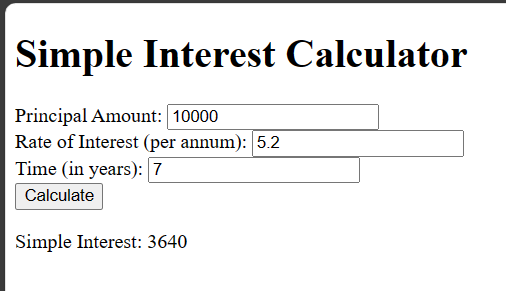
}

</script>

</body>

</html>

**Output:**

****

**Prac 6.5**

**Aim:** Write a program using JSP that displays a webpage consisting Application form for

change of Study Center which can be filled by any student who wants to change his/

her study center. Make necessary assumptions

Code:

student \_exchange.jsp:  
<%@ page language=*"java"* contentType=*"text/html; charset=UTF-8"* pageEncoding=*"UTF-8"*%>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"UTF-8"*>

<title>Change Study Center Application</title>

</head>

<body>

<h1>Change Study Center Application</h1>

<form action=*"exchange.jsp"* method=*"post"*>

<label for=*"studentName"*>Student Name:</label>

<input type=*"text"* id=*"studentName"* name=*"studentName"* required><br><br>

<label for=*"currentCenter"*>Current Study Center:</label>

<input type=*"text"* id=*"currentCenter"* name=*"currentCenter"* required><br><br>

<label for=*"newCenter"*>New Study Center:</label>

<input type=*"text"* id=*"newCenter"* name=*"newCenter"* required><br><br>

<input type=*"submit"* value=*"Submit"*>

</form>

</body>

</html>

Exchange.jsp:

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

<%@ page import=*"java.io.\*, java.util.\*"* %>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"UTF-8"*>

<title>Application Submitted</title>

</head>

<body>

<h1>Application Submitted</h1>

<p>Thank you for submitting your study center change application.</p>

<p>Student Name: <%= request.getParameter("studentName") %></p>

<p>Current Center: <%= request.getParameter("currentCenter") %></p>

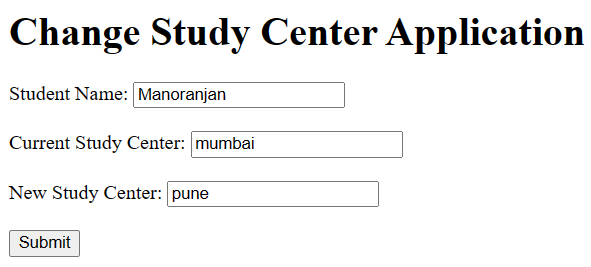
<p>New Center: <%= request.getParameter("newCenter") %></p>

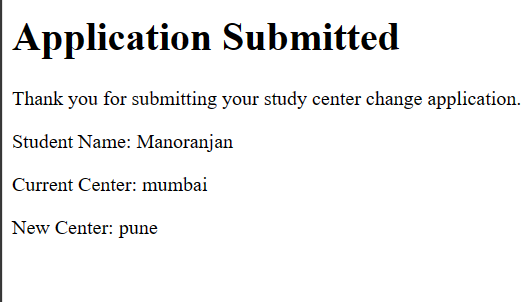
<!-- Perform database updates or other necessary actions here -->

</body>

</html>

Output:





**Prac 6.6**

**Aim:** Write a JSP program that demonstrates the use of JSP declaration, scriptlet,

directives, expression, header and footer.

Code:

Main.jsp:  
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"

pageEncoding="ISO-8859-1"%>

<!DOCTYPE html>

<html>

<head>

<meta charset="ISO-8859-1">

<title>JSP Declaration, Scriptlet, Directive, Expression, Header, and Footer Example</title>

</head>

<body>

<%@ include file="header.jsp" %>

<center>

<%! int data=50; %>

<%= "Value of the variable is: " + data %>

<%! double circle(int n) { return 3.14 \* n \* n; } %>

<br>

<%= "Area of Circle is: " + circle(5) %>

<br>

<%! int rectangle(int l, int b) { return l \* b; } %>

<%= "Area of rectangle is: " + rectangle(4, 6) %>

<br>

<%! int perimeter(int x, int y) {

int peri = 2 \* (x + y);

return peri;

} %>

<br>

<%= "Perimeter of rectangle: " + perimeter(5, 6) %>

<br>

<p>Thanks for visiting my page</p>

</center>

<%@ include file="footer.jsp" %>

</body>

</html>

Header.jsp:

<%@ page language=*"java"* contentType=*"text/html; charset=ISO-8859-1"*

pageEncoding=*"ISO-8859-1"*%>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"ISO-8859-1"*>

<%! int pageCount=0;

void addcount(){pageCount++;}%>

<% addcount();%>

<title>Jsp Declaration, Scriptlet,directive,expression,header and footer example</title>

</head>

<body>

<center>

<h2>

The include Directive Example

</h2>

<p><b>This site has been visited <%= pageCount %>.</b></p>

</center>

</body>

</html>

Footer,jsp:

<%@ page language=*"java"* contentType=*"text/html; charset=ISO-8859-1"*

pageEncoding=*"ISO-8859-1"*%>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"ISO-8859-1"*>

<title>Insert title here</title>

</head>

<body>

<center>

<b>Manoranjan baral </b><br>

<b>23-Mca-05</b>

</center>

</body>

</html>

Output:

