

Estd.2012



NILGIRI COLLEGE OF ARTS AND SCIENCE

(Affiliated to Bharathiar University)

PG DEPARTMENT OF COMPUTER SCIENCE

ADVANCED JAVA

PROGRAMMING-LAB

PRACTICALRECORD

2023—2025

NAME.....

REGISTER No.....

CLASS.....

SEMESTER..... ..

Estd.2012



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NAME. CLASS.

REGISTERNo.....

Certified that this is the bonafide record of work done by the above student
of M.Sc.Computer Science in the Advanced Java Programming Laboratory
during the year 2023-2025.

Staffin-charge

Head oftheDepartment

Principal

Submitted for the Practical Examination held on.....

Internal Examiner

External Examiner

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Ex. No:1	WELCOME MESSAGE USING SERVLET
Date:	

Aim:

To Display a welcome message using Servlet.

Algorithm:

Step1: Start the program

Step2: Create a welcome message using JSP technology.

Step3: Create dynamic web project.

Step 4: Select file – new – dynamic web.

Step5: Create a stand alone dynamic web project or existing enter price application.

Step 6 : Click button to configure project for existing building a java application.

Step7: Again click next button to configure web module setting.

Step 8: End the process.

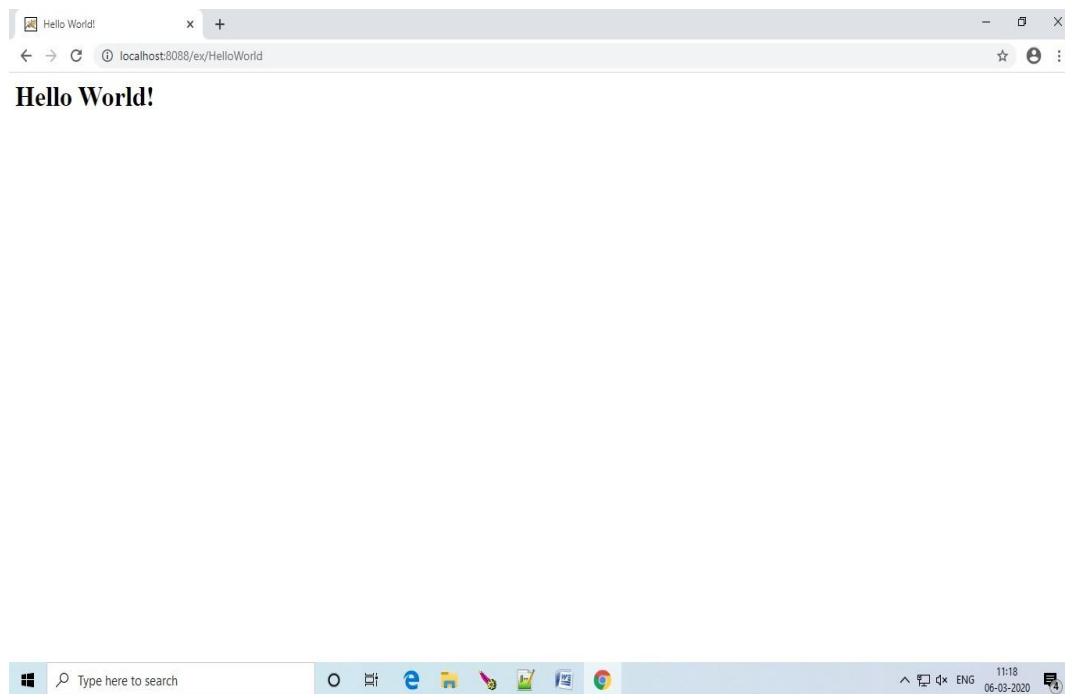
Package program1:

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

/**
 *
 * @author NCAS_PG LAB
 */
@WebServlet(name = "servlet", urlPatterns = {"/servlet"})
public class servlet extends HttpServlet {

    /**
     * Processes requests for both HTTP GET and POST
     * methods.
     *
     * @param request servlet request
     * @param response servlet response
     * @throws ServletException if a servlet-specific error occurs
     * @throws IOException if an I/O error occurs
     */
    protected void processRequest(HttpServletRequest request, HttpServletResponse
    response)
        throws ServletException, IOException {
        response.setContentType("text/html;charset=UTF-8");
        try (PrintWriter out = response.getWriter()) {
            /* TODO output your page here. You may use following sample code. */
            out.println("<!DOCTYPE html>");
            out.println("<html>");
            out.println("<head>");
            out.println("<title>Servlet servlet</title>");
            out.println("</head>");
            out.println("<body>");
            out.println("<h1>Hello World!" + request.getContextPath() + "</h1>");
            out.println("</body>");
            out.println("</html>");
        }
    }
}
```

OUTPUT:



RESULT:

The Program has been executed successfully and output was verified.

Ex. No:2	PURCHASE ORDER FORM USING SERVLET
Date:	
Aim To Design a Purchase Order form using Html and Servlet.	
Algorithm: Step 1:Start the program. Step 2:open NetBean and select file- new project- java web- web application Step 3: Create the file name and click finish Step4: Copy the coding from the notepad and paste it on netbean Step5: Right click on the project select new-servlet and create the file name. Step 6: save and run the program. Step7:End the program.	

index.html

```
<html>
<head>
<title>Purchase order using servlet</title>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0"> </head>
<body>
<center><h1> PURCHASE ORDER FORM</H1>
<form action="purchase" method="POST">
<table border="1">
<thead>
<tr>
<th>Sl No </th>
<th>Item Number </th>
<th>Item Name </th>
<th>Quantity </th>
<th>Price </th>
</tr>
</thead>
<tbody>
<tr>
<td><input type="text" name="sno" value="" /></td> <td><input type="text" name="ino"
value="" /></td> <td><input type="text" name="iname" value="" /></td> <td><input
type="text" name="qty" value="" /></td> <td><input type="text" name="price"
value="" /></td> </tr>
<tr>
<td><input type="text" name="sno1" value="" /></td> <td><input type="text"
name="ino1" value="" /></td> <td><input type="text" name="iname1" value="" /></td>
<td><input type="text" name="qty1" value="" /></td> <td><input type="text"
name="price1" value="" /></td> </tr>
<tr>
<td><input type="text" name="sno2" value="" /></td> <td><input type="text"
name="ino2" value="" /></td> <td><input type="text" name="iname2" value="" /></td>
<td><input type="text" name="qty2" value="" /></td> <td><input type="text"
name="price2" value="" /></td> </tr>
</tbody> </table>
<input type="submit" value="SUBMIT"/>
</form>
</center>
</body>
</html>
```


Purshase.java

```
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
@WebServlet(urlPatterns = {"/purchase"})
public class purchase extends HttpServlet {
    protected void doPost(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        int quantity=Integer.parseInt(request.getParameter("qty"));
        int price=Integer.parseInt(request.getParameter("price"));
        int totalamount=quantity*price;
        int quantity1=Integer.parseInt(request.getParameter("qty1"));
        int price1=Integer.parseInt(request.getParameter("price1"));
        int totalamount1=quantity*price;
        int quantity2=Integer.parseInt(request.getParameter("qty2"));
        int price2=Integer.parseInt(request.getParameter("price2"));
        int totalamount2=quantity*price;
        int totalamount3=totalamount+totalamount1+totalamount2;
        PrintWriter writer=response.getWriter();
        String htmlResponse="<html>";
        htmlResponse+= "<center><h1><b>Purchase Bill</b></h1></br><br>";
        htmlResponse+= "</h2><center>Total Amount is "+totalamount3+"<br></center>";
        htmlResponse+="</html>";
        writer.println(htmlResponse);
    }
}
```

OUTPUT:

SI No	Item Number	Item Name	Quantity	Price
1	10	rice	5	250
2	20	milk	4	200
3333	30	oil	3	150

Purchase Bill

Total Amount is 3750

RESULT:

The Program has been executed successfully and output was verified.

Ex. No:3	STUDENT PERCENTAGE USING JSP
Date:	
<p>Aim</p> <p>To develop a jsp program to display the grade of a student by accepting the marks of five subjects</p> <p>Algorithm</p> <p>Step 1:Start the program.</p> <p>Step2:Create a student mark using jsp technology</p> <p>Step3:Mark of student is displayed using HTML code</p> <p>Step 4: Compile the program using start- run- java c.file.java</p> <p>Step5:Run the program using run- java.filename</p> <p>Step 6: Stop the process</p>	

Index.html

```
<html>
<head>
<title>todo supply a title</title>
</head>
<body>
<h1>student marks</h1>
<form action="ms.jsp" method="get">
enter student regno: <input type="text"
name="regno"><br>

enter student name:<input type="text"
name="name"><br>

enter DM mark:<input type="text"
name="DM"><br>

enter AOS mark:<input type="text"
name="AOS"><br>

enter PHP mark:<input type="text"
name="PHP"><br>

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

ms.jsp

```
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<title>JSP Page</title>
</head>
<body>
<%
int
DM=Integer.parseInt(request.getParameter("DM"));
int
AOS=Integer.parseInt(request.getParameter("AOS"));
int
PHP=Integer.parseInt(request.getParameter("PHP"));
int
C=DM+AOS+PHP;
double avg=C/3;
out.println("The total="+C);%>
<br>
<%
out.println("\n the average="+avg);
%>
</body>
</html>
```

OUTPUT:

The first screenshot shows a web browser window with the title "student marks". The URL is "localhost:8080/PROGRAM33/". The form contains five input fields: "enter student regno:" with value "12346", "enter student name:" with value "nitheesh", "enter DM mark:" with value "100", "enter AOS mark:" with value "50", and "enter PHP mark:". A "Submit" button is located below the "enter DM mark:" field. The second screenshot shows the same browser window after submission. The URL is "localhost:8080/PROGRAM33/ms.jsp?regno=12346&name=nitheesh&DM=100&AOS=50&PHP=50". The output text is "The total=208" and "the average=69.0".

student marks

enter student regno: 12346 enter student name: nitheesh enter DM mark: 100 enter AOS mark: 50 enter PHP mark:
50 Submit

Activate Windows
Go to Settings to activate Windows.

localhost:8080/PROGRAM33/

localhost:8080/PROGRAM33/ms.jsp?regno=12346&name=nitheesh&DM=100&AOS=50&PHP=50

The total=208
the average=69.0

Activate Windows
Go to Settings to activate Windows.

RESULT:

The Program has been executed successfully and output was verified.

Ex. No:4	<u>PURCHASE ORDER FORM USING HTML AND JSP</u>
Date:	
Aim: To Design a Purchase Order formusing Html formand JSP	
Algorithm: Step1:Start the program. Step2:Open the Netbean and select file- new project- java web- java application Step3:click on next Step 4: Create the file name and click finish Step5:Copy the HTML code from notepad and paste it on netbean. Step 6: Save the process	

Index.html

```
<html>
<head>
</head>
<body>
<h1>AA COMPANY</h1>
<h2>purchase order form</h2>
<h4>enter your details: <a href="orrr"></a></h4>
<form action="orrr.jsp" method="get">
item no:<input type="text" name="item no">
item name:<input type="text" name="item name">
item description:<input type="text" name="item description">
item quantity:<<input type="text" name="item quantity">
<input type="submit">
</form>
</body>
</html>
```

Orrr.jsp

```
<html>
<head>
</head>
<body>
<%-- print out the variables--%>
<h1>Hello !!!</h1>
<h2> your order is confirmed</h2>
</body>
</html>
```


OUTPUT:

AA COMPANY

purchase order form

enter your details:

item no: item name: item description: item quantity:

Activate Windows
Go to Settings to activate Windows.

Hello !!!

your order is confirmed

Activate Windows
Go to Settings to activate Windows.

RESULT:

The Program has been executed successfully and output was verified.

Ex. No:5	EMPLOYEE PAY SLIP USING JSP
Date:	
Aim: Prepare Employee payslip using JSP	
Algorithm: Step 1: Start the program. Step 2:Open NetBean and select file->new project->java web->web application. Step 3:Create the filename and click finish. Step 4:Copy the html coding from the notepad and paste it on NetBean. Step 5:Click the project and click clean and build. Step 6: Right click on web pages and select new->jsp. Step 7:And create the file name and save it. Step 8: Run the program. Step 9:Stop the process.	

EMPLOYEE PAY SLIP USING JSP

```
<html>
  <head>
    <title>TODO supply a title</title>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
  </head>
  <body>
    <center><h1>Employee pay slip</h1>
    <form action ="EMPJSP.jsp" method="get">
      <table border="1">
        <tbody>
          <tr>
            <td>Employee name </td>
            <td><input type="text" name="name" value="" /> </td>
          </tr>
          <tr>
            <td>Employee number</td>
            <td><input type="text" name="empno" value="" /></td>
          </tr>
          <tr>
            <td>basic salary</td>
            <td><input type="text" name="bs" value="" /></td>
          </tr>
          <tr>
            <td>house rent allowance </td>
            <td><input type="text" name="hra" value="" /> </td>
          </tr>
          <tr>
            <td>provident fund</td>
            <td><input type="text" name="pf" value="" /></td>
          </tr>
        </tbody>
      </table>
      <input type="submit">

    </form>
  </ center>
</body>
</html>
```

EMPJSP.java

```
<% @page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<title>EMPLOYEE PAY SLIP </title>
</head>
<body>
<center>
<h1>EMPLOYEE PAY SLIP</h1>
<%
int basicsal=Integer.parseInt(request.getParameter("bs"));
int houserent=Integer.parseInt(request.getParameter("hra"));
int pf=Integer.parseInt(request.getParameter("pf"));
int netpay=basicsal+houserent+pf;
out.println("Employee Name:"+request.getParameter("name"));
out.println("Employee number:"+request.getParameter("empno"));
out.println("\nEmployee basic salary:"+basicsal);
out.println("Employee pf:"+pf);
out.println("Employee houserent:"+houserent);
out.println("Net salary:"+netpay);
%>
</center>
</body>
</html>
```

OUTPUT:

Employee pay slip

Employee name	nitheesh
Employee number	6543219876
basic salary	86000
house rent allowance	5000
provident fund	1000

Submit

Activate Windows
Go to Settings to activate Windows.

EMPLOYEE PAY SLIP

Employee Name:nitheesh Employee number:6543219876 Employee basic salary:86000 Employee pf:1000 Employee houserent:5000 Net salary:92000

Activate Windows
Go to Settings to activate Windows.

RESULT:

The Program has been executed successfully and output was verified.

Ex. No:6	<u>JDBC</u>
Date:	

Aim:

To write a program to create an employee table and manipulate the data in the table using JDBC.

Algorithm:

Step1:Start the program.

Step2:Create a database using MS-Acess.

Step3:Connect the database to ODBC source using the OBDC driver.

Step4:Enter the data Source name and add the database to it.

Step5:Open the notepad application and import the header file.

Step6:Create a class.

Step7:Declare the connection statement and create string.

Step8:Using try and catch method get the driver and catch the exception.

Step9:Using driver manager.grtconnection assign the full path name of the database.

Step10:Using switch case statement specify the queries for creating a table,insert values and also delete the value from the table.

Step11:When query is executed the specified action will be performed in the table in the database.

Step12:Stop the process.

JDBC

```
package jdbc;

import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStreamReader;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.util.Scanner;
import java.util.logging.Level;
import java.util.logging.Logger;

/**
 *
 * @author NCAS LAB2
 */
public class JDBC {

    /**
     * @param args the command line arguments
     */
    public static void main(String[] args) throws IOException{
        int operation=0;
        do{
            try {

                int id,rollNo,age;
                String admNo,firstName,lastName,phoneNo,sql;
                Class.forName("net.ucanaccess.jdbc.UcanaccessDriver");
                String dbURL = "jdbc:ucanaccess://Student.accdb";
                Connection con = DriverManager.getConnection(dbURL);
                Scanner sc = new Scanner(System.in);
                BufferedReader reader = new BufferedReader(new InputStreamReader(System.in));
                System.out.println("\nSelect Operation(1-3):\n\t1. Student Registration\n\t2. Student
                Expulsion\n\t3. Student List\n\t4. Log out");
                System.out.print("Select your choice : ");
                operation = sc.nextInt();

                PreparedStatement pStmnt = null;
                ResultSet result=null;

                switch(operation){
                    case 1 :
                        sql ="INSERT INTO Student(AdmNo,RollNo,FirstName,LastName,Age,
                        PhoneNo)
```

```

VALUES(?,?,?,?);
pStmtnt=con.prepareStatement(sql);
System.out.println("\n\n\t\t\tStudent Registration\n\n");
System.out.print("Admission Number : ");
admNo = reader.readLine();
System.out.print("\nRoll Number : ");
rollNo = sc.nextInt();
sc.nextLine();
System.out.print("\nFirst Name : ");
firstName = reader.readLine();
System.out.print("\nLast Name : ");
lastName = reader.readLine();
System.out.print("\nAge : ");
age = sc.nextInt();
sc.nextLine();
System.out.print("\nPhone Number : ");
phoneNo = reader.readLine();

pStmtnt.setString(1, admNo);
pStmtnt.setInt(2, rollNo);
pStmtnt.setString(3, firstName);
pStmtnt.setString(4, lastName);
pStmtnt.setInt(5, age);
pStmtnt.setString(6, phoneNo);
try{
    int rows = pStmtnt.executeUpdate();
    if(rows>0)
    {
        System.out.println("A new record added");
    }
} catch(SQLException e){
    System.out.print("An error occured...There have a chance of redundancy or internal
failure.");
}
break;
case 2 :
    System.out.println("\n\n\t\t\tStudent Expulsion\n\n");
    System.out.println("\nWhich method you want to select :\n\t1.By Admission Number
\n\t2.By Roll Number");
    System.out.print("Select your choice : ");
    int deleteMode = sc.nextInt();
    if (deleteMode==1)
    {
        System.out.print("Enter the number:");
        String delete = reader.readLine();
        sql = "DELETE FROM STUDENT WHERE AdmNo = '"+ delete+"'";
        try{
            pStmtnt =con.prepareStatement(sql);
            pStmtnt.execute();
            System.out.println("Admission Number matching "+delete+" has been removed.
He/She is no longer in database");

```

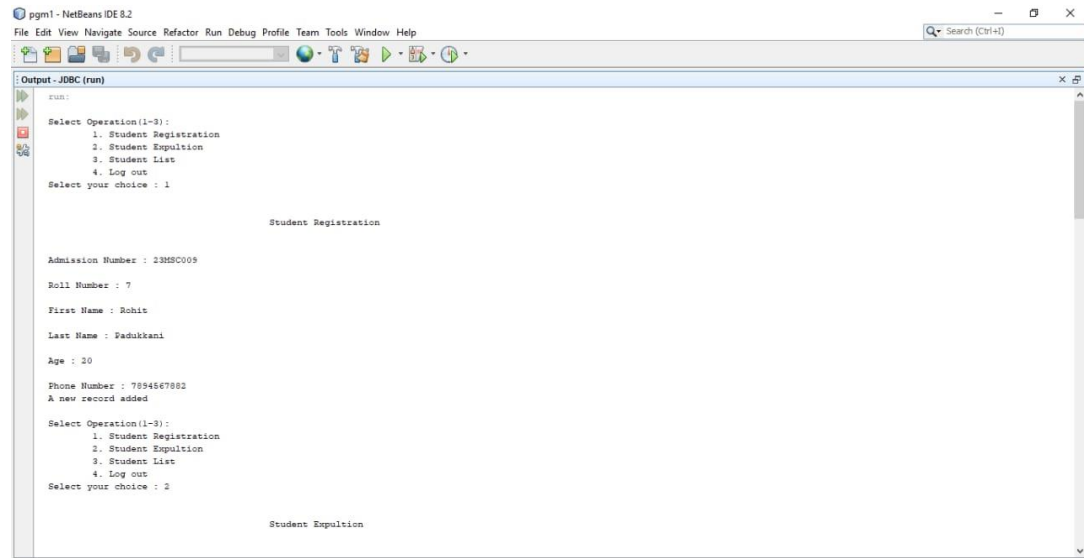


```

} catch (SQLException e) {
    System.out.println(e);
}
}
else if (deleteMode == 2) {
    System.out.print("Enter the number:");
    String delete = reader.readLine();
    int rollDelete = Integer.parseInt(delete);
    sql = "DELETE FROM STUDENT WHERE RollNO = " + rollDelete;
    pstmt = con.prepareStatement(sql);
    pstmt.execute();
    System.out.println("Roll Number matching " + delete + " has been removed. He/She is no
longer in database");
}
else {
    System.out.print("Invalid input");
    break;
}
operation = 3;
case 3 :
    System.out.println("\n\n\t\t\t\t\tStudent List\n\n");
    sql = "SELECT * FROM STUDENT ORDER BY RollNO ASC";
    pstmt = con.prepareStatement(sql);
    result = pstmt.executeQuery();
    while (result.next()) {
        id = result.getInt("ID");
        rollNo = result.getInt("RollNo");
        age = result.getInt("Age");
        admNo = result.getString("AdmNo");
        firstName = result.getString("FirstName");
        lastName = result.getString("LastName");
        phoneNo = result.getString("PhoneNo");
        System.out.println("\n ID : " + id + "\t Roll Number : " + rollNo + "\t Admission Number " + admNo + "\t
Name: " + firstName + " " + lastName + "\t Age : " + age + "\t Phone Number : " + phoneNo + "\n");
    }
    break;
case 4:
    System.out.print("You Log out from server");
    break;
default:
    System.out.print("Invalid Input...try again...");
    break;
}
con.close();
} catch (ClassNotFoundException ex) {
    Logger.getLogger(JDBC.class.getName()).log(Level.SEVERE, null, ex);
} catch (SQLException ex) {
    System.out.print("Database couldn't load. " + ex);
}
}
} while (operation == 1 || operation == 2 || operation == 3);
}
}

```

OUTPUT:



```
pgm1 - NetBeans IDE 8.2
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
Search (Ctrl+F)

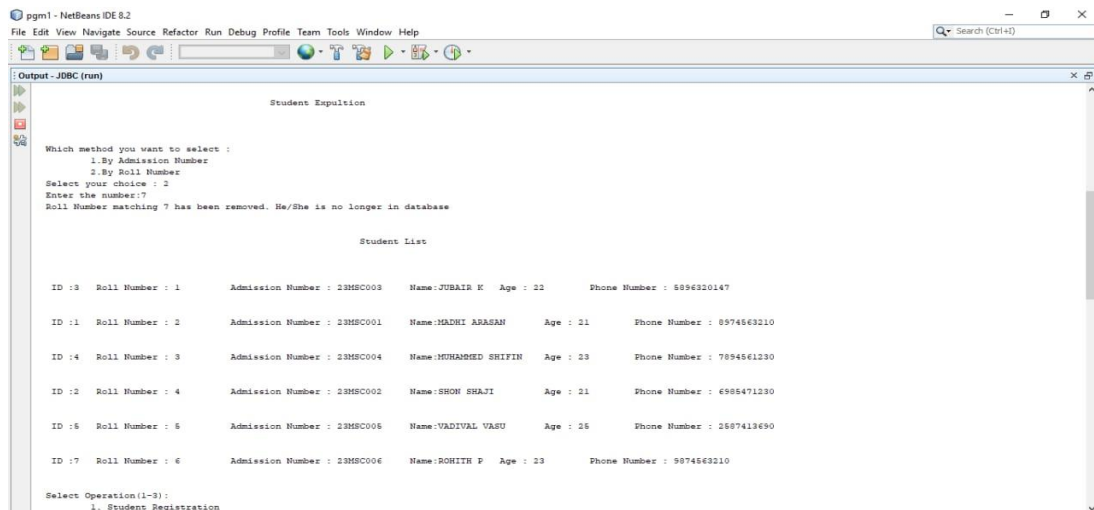
Output - JDBC (run)
RUN
Select Operation(1-3):
1. Student Registration
2. Student Expiration
3. Student List
4. Log out
Select your choice : 1

Student Registration

Admission Number : 23MSC009
Roll Number : 7
First Name : Rohit
Last Name : Padukkani
Age : 20
Phone Number : 7894567892
A new record added

Select Operation(1-3):
1. Student Registration
2. Student Expiration
3. Student List
4. Log out
Select your choice : 2

Student Expiration
```



```
pgm1 - NetBeans IDE 8.2
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
Search (Ctrl+F)

Output - JDBC (run)
RUN
Student Expiration

Which method you want to select :
1. By Admission Number
2. By Roll Number
Select your choice : 2
Enter the number:7
Roll Number matching 7 has been removed. He/She is no longer in database

Student List

ID :3 Roll Number : 1 Admission Number : 23MSC003 Name:JUBAIR K Age : 22 Phone Number : 8896320147
ID :1 Roll Number : 2 Admission Number : 23MSC001 Name:RADHI ARASHI Age : 21 Phone Number : 8974663210
ID :4 Roll Number : 3 Admission Number : 23MSC004 Name:MURAHMED SHIFIN Age : 23 Phone Number : 78945661230
ID :2 Roll Number : 4 Admission Number : 23MSC002 Name:SEOW SHAJI Age : 21 Phone Number : 6985471230
ID :6 Roll Number : 5 Admission Number : 23MSC005 Name:VADIVAL VASU Age : 25 Phone Number : 2687413490
ID :7 Roll Number : 6 Admission Number : 23MSC006 Name:ROHITH P Age : 23 Phone Number : 9874563210

Select Operation(1-3):
1. Student Registration
```

RESULT:

The Program has been executed successfully and output was verify

Ex. No:7	<u>JAVA SERVLET TO HANDLE FORM DATA</u>
Date:	

AIM:

To write a program using java servlet to handle form data.

Algorithm:

Step 1: start the program

Step 2: open the Netbean and select file->new project->java web->web application

Step 3: Right click on the project and select new->servlet

Step 4: create the filename and click finish

Step 5: save and run the program

Step 7:stop the process

index.html

```
<html>

  <head>

    <title>todo supply a title</title>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

  </head>

  <body><center>

    <h1>JAVA SERVLET TO HANDLE FORM DATA</h1><form name="loginform"
    action="servletform" method="POST">

    Username: <input type="text" name="username" value="" /><br/><br/>

    password:<input type="password" name="password" value="" /><br/><br/>

    <input type="submit" value="submit" />

  </form>

</center>

  </body>

</html>
```

Servletform.java

```
import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.annotation. WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;
@WebServlet("/servletform")

public class SERVLETFORM extends HttpServlet
{
@Override protected void doPost(HttpServletRequest request, HttpServletResponse repnse)
throws ServletException, IOException

{

response.setContentType("text/html;charset=UTF-8");

String username=(request.getParameter("username"));
String password=(request.getParameter("password"));
System.out.println("username:"+username);
System.out.println("password:"+password);

PrintWriter writer=(response.getWriter());

String htmlResponse="<html>";

htmlResponse+="<center><h1>Servlet to handle from data</h1><br/>";

htmlResponse+="</h2>Your name is:"+username+"<br/>";

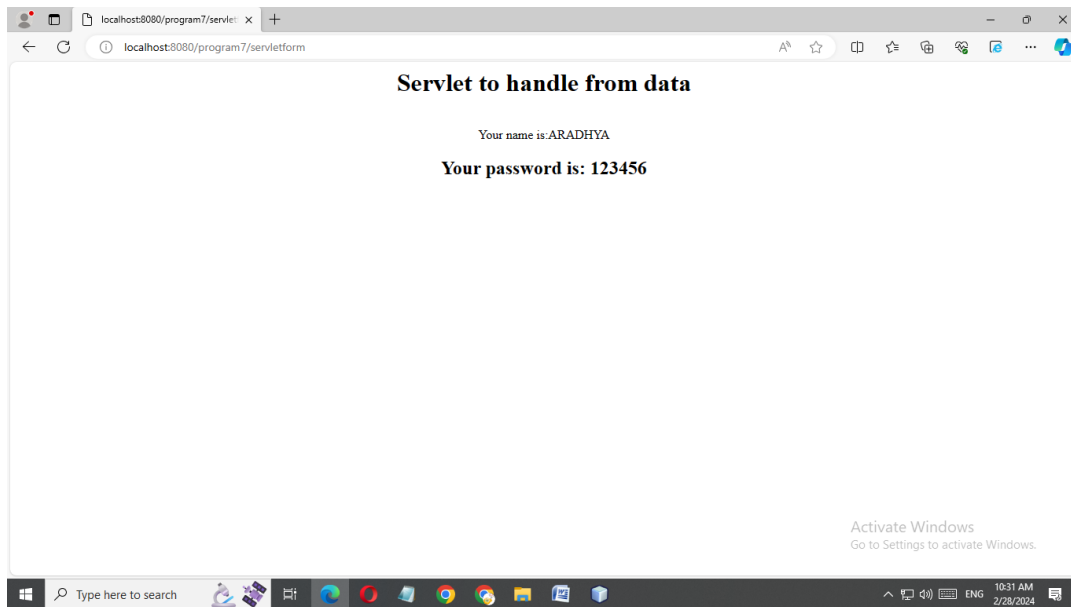
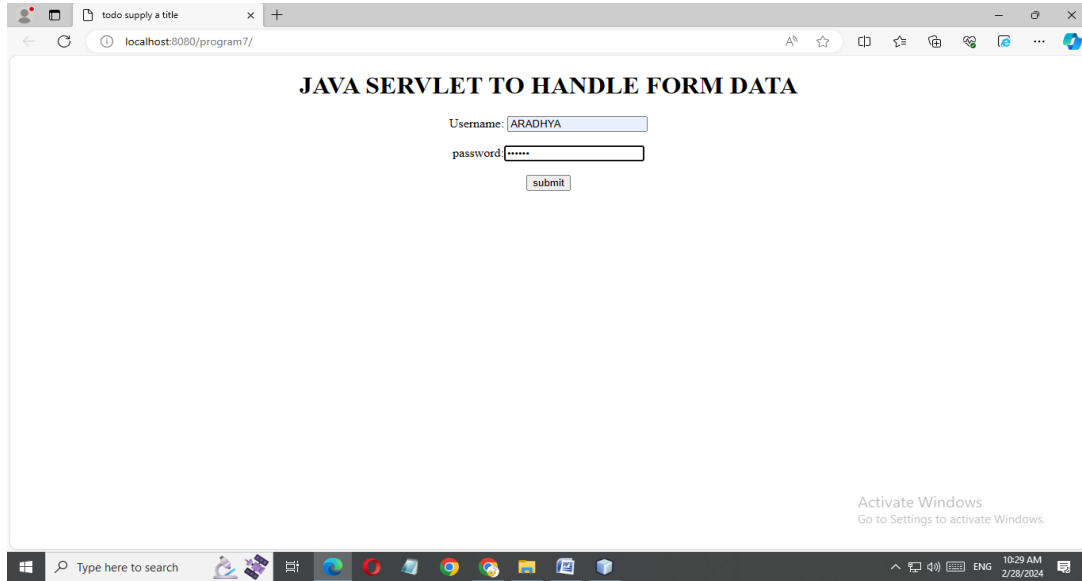
htmlResponse+="<h2>Your password is: "+password+"<br/></center>";

htmlResponse+="</html>";

writer.println(htmlResponse);

}
}
```

OUTPUT:



RESULT:

The Program has been executed successfully and output was verified.

Ex. No:8	<u>TO CREATE A TABLE USING STUDENT MARKLIST</u>
Date:	
Aim: To write a simple servlet program to create a table DB Algorithm: Step 1: Start the program Step 2: open the Netbean and select file->new project->java web->web application Step 3: Right click on the project and select new->java class Step 4: create the filename and click finish Step 5: create a table Step 6: save and run the program Step 7:Stop the process	

STUDENT MARKLIST

Index.html

```
<html>
<head>
<title>TODO supply a title</title>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
</head>
<body>
<center><h1>STUDENT MARK LIST</h1>
<form action="table" method="POST">
<table border="1">
<thead>
<tr>
<th>SL.No</th>
<th>Register number</th>
<th>Student Name</th>
<th>DM</th>
<th>OS</th>
<th>JAVA</th>
<th>AI</th>
<th>PHP</th>
</tr>
</thead>
<tbody>
<tr>
<td><input type="text" name="sno1" value="" /></td>
<td><input type="text" name="rno1" value="" /></td>
<td><input type="text" name="sname1" value="" /></td>
<td><input type="text" name="dm1" value="" /></td>
<td><input type="text" name="os1" value="" /></td>
<td><input type="text" name="java1" value="" /></td>
<td><input type="text" name="ai1" value="" /></td>
<td><input type="text" name="php1" value="" /></td>
</tr>
<tr>
<td><input type="text" name="sno2" value="" /></td>
<td><input type="text" name="rno2" value="" /></td>
<td><input type="text" name="sname2" value="" /></td>
<td><input type="text" name="dm2" value="" /></td>
<td><input type="text" name="os2" value="" /></td>
<td><input type="text" name="java2" value="" /></td>
<td><input type="text" name="ai2" value="" /></td>
<td><input type="text" name="php2" value="" /></td>
</tr>
```



```

<tr>
<td><input type="text" name="sno3" value="" /></td>
<td><input type="text" name="rno3" value="" /></td>
<td><input type="text" name="sname3" value="" /></td>
<td><input type="text" name="dm3" value="" /></td>
<td><input type="text" name="os3" value="" /></td>
<td><input type="text" name="java3" value="" /></td>
<td><input type="text" name="ai3" value="" /></td>
<td><input type="text" name="php3" value="" /></td>
</tr>
<tr>
<td><input type="text" name="sno4" value="" /></td>
<td><input type="text" name="rno4" value="" /></td>
<td><input type="text" name="sname4" value="" /></td>
<td><input type="text" name="dm4" value="" /></td>
<td><input type="text" name="os4" value="" /></td>
<td><input type="text" name="java4" value="" /></td>
<td><input type="text" name="ai4" value="" /></td>
<td><input type="text" name="php4" value="" /></td>
</tr>
</tbody>
</table>
<input type="submit" value="submit" />
</form></center>
</body>
</html>

```

table.java

```

import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
@WebServlet(urlPatterns = {"/table"})
public class table extends HttpServlet {

    @Override
    protected void doPost(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException {
        response.setContentType("text/html;charset=UTF-8");
        int dm1=Integer.parseInt(request.getParameter("dm1"));
        int os1=Integer.parseInt(request.getParameter("os1"));
        int java1=Integer.parseInt(request.getParameter("java1"));
        int ai1=Integer.parseInt(request.getParameter("ai1"));
        int php1=Integer.parseInt(request.getParameter("php1"));
        int total1=dm1+os1+java1+ai1+php1;
        int dm2=Integer.parseInt(request.getParameter("dm2"));
        int os2=Integer.parseInt(request.getParameter("os2"));

```

```

        int java2=Integer.parseInt(request.getParameter("java2"));
        int ai2=Integer.parseInt(request.getParameter("ai2"));
        int php2=Integer.parseInt(request.getParameter("php2"));
        int total2=dm2+os2+java2+ai2+php2;
        int dm3=Integer.parseInt(request.getParameter("dm3"));
        int os3=Integer.parseInt(request.getParameter("os3"));
        int java3=Integer.parseInt(request.getParameter("java3"));
        int ai3=Integer.parseInt(request.getParameter("ai3"));
        int php3=Integer.parseInt(request.getParameter("php3"));
        int total3=dm3+os3+java3+ai3+php3;
        int dm4=Integer.parseInt(request.getParameter("dm4"));
        int os4=Integer.parseInt(request.getParameter("os4"));
        int java4=Integer.parseInt(request.getParameter("java4"));
        int ai4=Integer.parseInt(request.getParameter("ai4"));
        int php4=Integer.parseInt(request.getParameter("php4"));
        int total4=dm4+os4+java4+ai4+php4;
        PrintWriter writer=response.getWriter();
        String htmlResponse="<html>";
        htmlResponse+="<center><h1>MARK SHEET FOR MSC I INTERNAL</h1><br/>";
        htmlResponse+="</h2>name:"+request.getParameter("sname1")+"<br/>";
        htmlResponse+="</h2>Your total marks is:"+total1+"<br/>";
        htmlResponse+="</h2>name:"+request.getParameter("sname2")+"<br/>";
        htmlResponse+="</h2>Your total marks is:"+total2+"<br/>";
        htmlResponse+="</h2>name:"+request.getParameter("sname3")+"<br/>";
        htmlResponse+="</h2>Your total marks is:"+total3+"<br/>";
        htmlResponse+="</h2>name:"+request.getParameter("sname4")+"<br/>";
        htmlResponse+="</h2>Your total marks is:"+total4+"<br/>";
        htmlResponse+="</html>";
        writer.println(htmlResponse);
    }
}

```

OUTPUT:

STUDENT MARK LIST

SL.No	Register number	Student Name	DM	OS	JAVA	AI	PHP
1	2332K0400	gopika	95	98	89	93	94
2	2332K0401	anisha	85	65	89	97	82
3	2332K0402	sneha	79	95	87	96	98
4	2332K0403	nisha	65	75	84	85	65

submit

MARK SHEET FOR MSC I INTERNAL

name:gopika
Your total marks is:469
name:anisha
Your total marks is:418
name:sneha
Your total marks is:455
name:nisha
Your total marks is:374

Result:

The Program has been executed successfully and output was verified.

Ex. No:9	<u>SESSION OBJECT</u>
Date:	
Aim: To create program in jsp by using session object.	
Algorithm: Step 1: start the program Step 2: create a welcome page using html code. Step 3: And perform action using session.jsp Step 4: The JSP Perform the horizontal reference to link the JSP technology. Step 5: Run the program and display the output. Step 6: stop the program	

session object

Index.html

```
<html>
<head>
<title>Welcome Page:Enter your name</title>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
</head>
<body>
<form action="session.jsp" method="get">
<input type="text" name="inputname">
<input type="submit" value="click here !!"><br/>
</form>
</body>
</html>
```

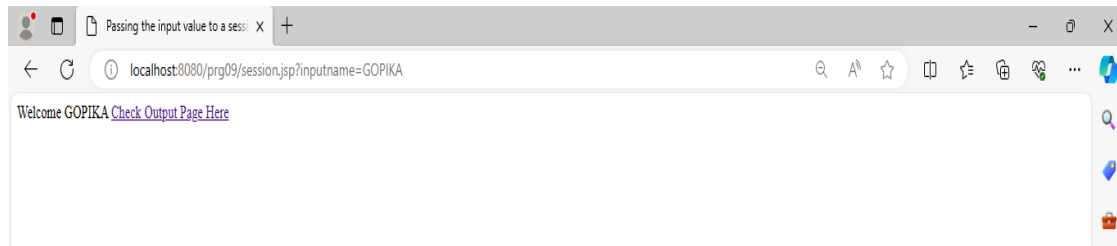
Session.java

```
<% @page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<title>Passing the input value to a session variable</title>
</head>
<body>
<%
String uname=request.getParameter("inputname");
out.print("Welcome "+uname);
session.setAttribute("sessionname",uname);
%>
<a href="output.jsp">Check Output Page Here</a>
</body>
</html>
```

Output.jsp

```
<% @page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<title>Output page :Fetching the value from session </title>
</head>
<body>
<%
string name=(String)session.getAttribute("sessionname");
out.print("hello user: you have entered the name:"+name);
%>
</body>
</html>
```

OUTPUT:



RESULT:

Thus the program executed successfully and the output is verified

Ex. No:10	<u>RMI</u>
Date:	
Aim: To write a java program for adding two numbers using RMI	
Algorithm: STEP 1:Start the program. STEP 2: Openthe Netbean and select file->new project->java->java application. STEP 3: Provide the implementation of the remote interface. STEP 4: Create and start the remote application. STEP 5: Create and start the client application. STEP 6: Create a new class and save as Hello.java. STEP 7: Run server and client classes. STEP 8: Stop the process.	

RMI

HelloInterface.java// interface

```
import java.rmi.*;

public interface HelloInterface extends Remote {

    public String say() throws RemoteException;
}
```

HelloServer.java//Class

```
import java.rmi.Naming;
import java.rmi.registry.Registry;

public class HelloServer {

    public static void main(String[] args) {
        try {
            Registry r = java.rmi.registry.LocateRegistry.createRegistry(1099);
            r.rebind("Hello", new Hello("Nilgiri College of Arts & Science, Thaloor."));
            System.out.println("Server is connected and ready for operation.");
        } catch (Exception e) {
            System.out.println("Server not connected: " + e);
        }
    }
}
```

HelloClient.java// Class

```
import java.rmi.Naming;

public class HelloClient {

    public static void main(String[] argv) {
        try {
            HelloInterface hello = (HelloInterface) Naming.lookup("//localhost/Hello");
            System.out.println(hello.say());
        } catch (Exception e) {
            System.out.println("HelloClient exception: " + e);
        }
    }
}
```

Hello.java//Class

```
import java.rmi.*;
import java.rmi.server.*;

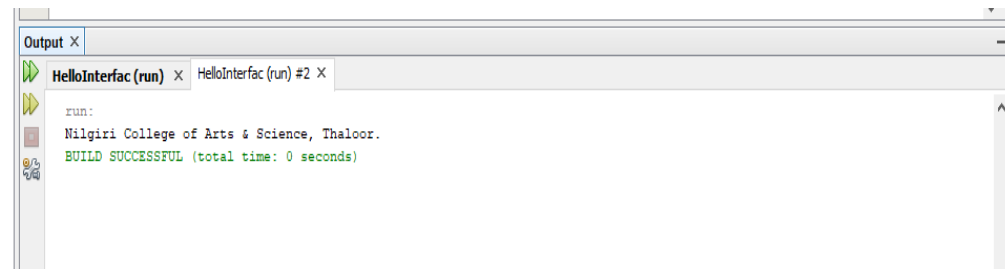
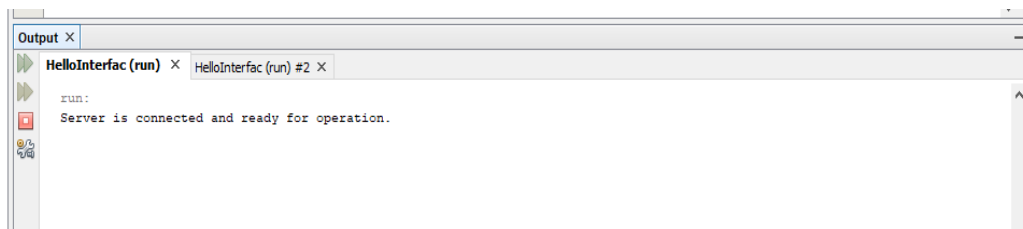
public class Hello extends UnicastRemoteObject
implements HelloInterface {

    private String message;

    public Hello(String msg) throws RemoteException {
        message = msg;
    }

    public String say() throws RemoteException {
        return message;
    }
}
```

OUTPUT:



RESULT:

Thus the program executed successfully and the output is verified.

Ex. No:11

CALCULATOR

Date:

Aim:

To create an applet program for a calculator application.

Algorithm:

STEP 1: Start the program.

STEP 2: Declare the class name as calc.

STEP 3: Declare the variable.

STEP 4: create an object

STEP 5: Check the condition using if – else

STEP 6: In the first case, give the value to be added, subtracted, divided, and multiplied
gets that value using int.

STEP 7: Run the program.

STEP 8: Stop the program.

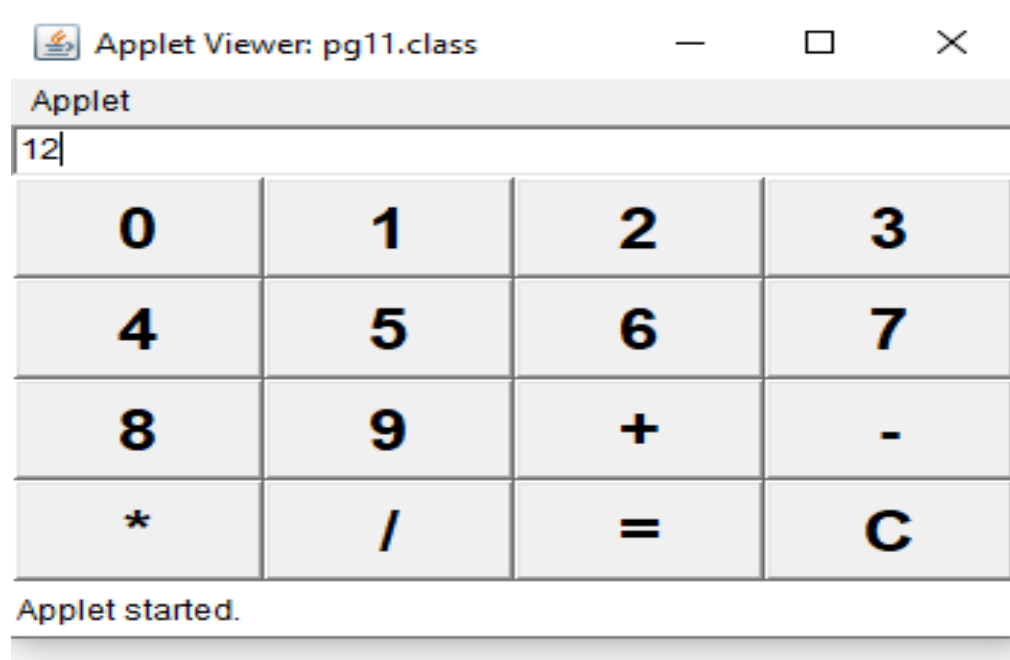
CALCULATOR

```
Import java.applet.*;
Import java.awt.*;
Import java.awt.event.*;
public class calc extends Applet implements ActionListener
/*<applet code="calc.class"height=300 width=300></applet>*/
{
String cmd[]={"+", "-", "*", "/", "=", "C"};
intpv=0;
String op="";
Button b[]=new Button[16];
TextField t1=new TextField(10);
public void init()
{
setLayout(new BorderLayout());
add(t1,"North");
t1.setText("0");
Panel p=new Panel();
p.setLayout(new GridLayout(4,4));
for(int i=0;i<16;i++)
{
if(i<10)
b[i]=new Button(String.valueOf(i));
else
b[i]=new Button(cmd[i%10]);
b[i].setFont(new Font("Arial",Font.BOLD,25));
p.add(b[i]);
add(p,"Center");
b[i].addActionListener(this);
}
}
public void actionPerformed(ActionEvent ae)
{
```

```
int res=0;
String cap=ae.getActionCommand();
int cv=Integer.parseInt(t1.getText());
if(cap.equals("C"))
{
t1.setText("0");
pv=0;
cv=0;
res=0;
op="";
}
else if(cap.equals("="))
{res=0;
if(op=="+")
res=pv+cv;
else if(op=="-")
res=pv-cv;
else if(op=="*")
res=pv*cv;
else if(op=="/")
res=pv/cv;
t1.setText(String.valueOf(res));
}
else if(cap.equals("+")||cap.equals("-")||cap.equals("*")||cap.equals("/"))
{
pv=cv;
op=cap;
t1.setText("0");
}
```

```
else
{
int v=cv*10+Integer.parseInt(cap);
t1.setText(String.valueOf(v));
}
}
```

OUTPUT:



RESULT:

The Program has been executed successfully and output was verified.

Ex. No:12

Date:

CLIENT SERVER INTERACTION

Aim:

To create a program to send a text message to another system and receive the text message from the system using sockets.

Algorithm:

STEP 1: Start the program.

STEP 2: Create a class and declare the variable and initialize it.

STEP 3: Server program and client program should be written in different notepad window.

STEP 4: Create a new object socket to read the message from the client.

STEP 5: Create a client program to send the message to the server.

STEP 6: Get the return message from the server.

STEP 7: Run both the server and client program in different command prompt.

STEP 8: The message will be sent by the client to the server and the server to client.

STEP 9: Stop the program.

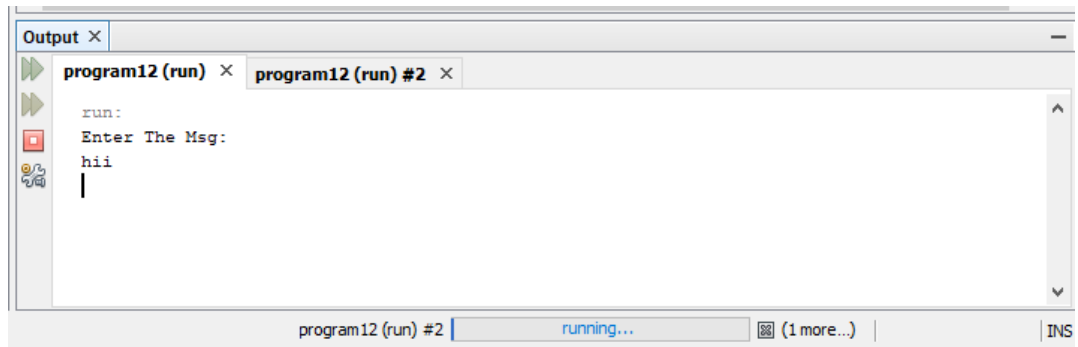
CLIENT SERVER INTERACTION

```
import java.io.*;
import java.net.*;
import java.lang.*;
public class Sserver
{
    public static void main(String args[])throws IOException
    {
        BufferedReader b=new BufferedReader(new InputStreamReader(System.in));
        ServerSocket s3=new ServerSocket(4000);
        Socket s=s3.accept();
        InputStream i=s.getInputStream();
        DataInputStream dis=new DataInputStream(i);
        OutputStream o=s.getOutputStream();
        DataOutputStream dos=new DataOutputStream(o);
        while(true)
        {
            System.out.println("Enter The Msg:");
            String st=b.readLine();
            dos.writeUTF(st);
            String s1=dis.readUTF().toString();
            System.out.println("msgreceived from client");
            System.out.println(s1);
            if(st.equals("bye"))
                break;
            }dos.close();
        o.close();
        s.close();}
```

/* PROGRAM FOR CLIENT */

```
import java.io.*;
import java.net.*;
import java. lang.*;
public class Sclient
{
public static void main(String args[])throws IOException
{
Socket s=new Socket(InetAddress.getLocalHost(),4000);
BufferedReader b=new BufferedReader(new InputStreamReader(System.in));
System.out.println("Waiting for response");
InputStream i=s.getInputStream();
DataInputStream dis=new DataInputStream(i);
OutputStream o=s.getOutputStream();
DataOutputStream dos=new DataOutputStream(o);
String s1=null;
while(true)
{
Try
{
s1=dis.readUTF().toString();
System.out.println("msg received from Server");
System.out.println(s1);
System.out.println("Enter The Msg:");
String str=b.readLine();
dos.writeUTF(str);
}
catch(IOException e){}
if(s1.equals("bye"))
break;
}
dis.close();
i.close();
System.out.flush();
}}
```

OUTPUT:

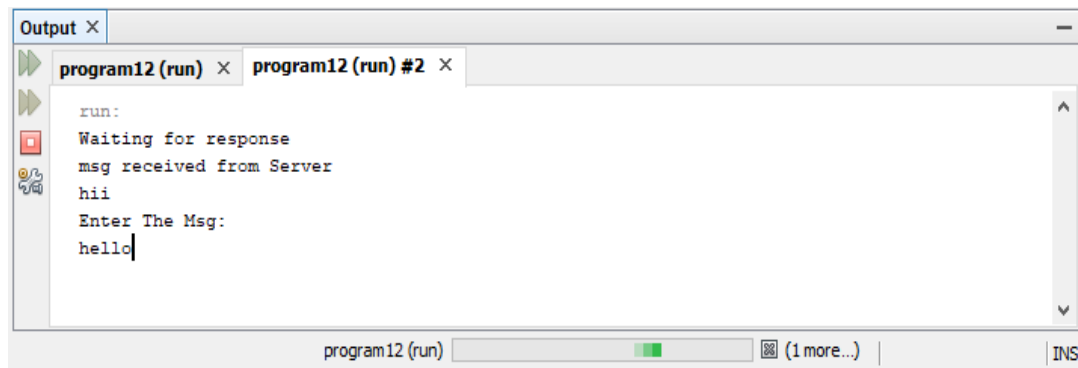


Output X

program12 (run) X program12 (run) #2 X

```
run:
Enter The Msg:
hii
|
```

program12 (run) #2 running... (1 more...) INS

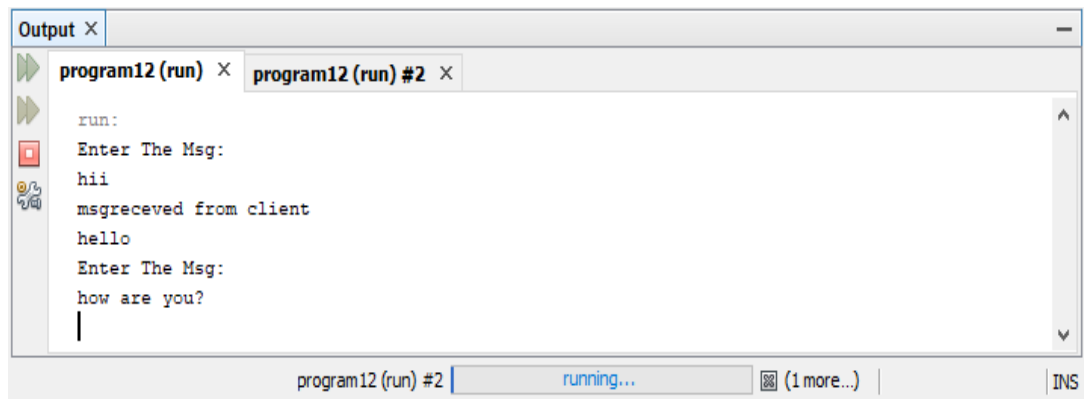


Output X

program12 (run) X program12 (run) #2 X

```
run:
Waiting for response
msg received from Server
hii
Enter The Msg:
hello|
```

program12 (run) (1 more...) INS



Output X

program12 (run) X program12 (run) #2 X

```
run:
Enter The Msg:
hii
msgreceived from client
hello
Enter The Msg:
how are you?
|
```

program12 (run) #2 running... (1 more...) INS

RESULT:

The Program has been executed successfully and output was verified.