INDERPRASTHA ENGINEERING COLLEGE

GHAZIABAD

Department of Information Technology

SKILL 3 LAB

(2019-20)

Name	**:**	**Natasha Sharma**
Roll Number	**:**	**1703013043**
Course	**:**	**B.Tech. (I.T.)**
Year	**:**	**3**
Semester	**:**	**6**
Section	**:**	**A**

INDEX

Practical 1

Objective:- Write program in java to find n^{th} term of the series 3,6,18,24,45,54,…

Source Code :-

```
class Nth {
   public intnthTerm(int N)
   {
      return (N * ((N / 2) + ((N % 2) * 2) + N));
   }
}
public class Main {

   public static void main(String[] args)
   {
int N = 5;
      Nth a = new Nth();
System.out.println("Nth term for N = "
                   + N + " : "
                   + a.nthTerm(N));
   }
}
```

Output :-

```
Nth term for N = 5 : 45
```

Practical 2

Objective:- Write a program in java consider first n even numbers starting from 0 and find sum of all these no. divisible by 3 and print sum n=5

Source Code :-

```
public class Main
{
	public static void main(String args[])
	{
		inti,a=0,n=5;
		for(i=0;i<(2*n);i++)
		{
			if(i%2==0)
			{
				System.out.print(i+"");
				a=a+i;
			}
		}
		System.out.println("Sum of even no. divisible by 3: " + (a/3));
	}
}
```

Output:-

```
0 2 4 6 8 Sum of even no. divisible by 3: 6
```

Practical 3

Objective:- Write program in java to print all pairs of {1,5,7,-1,5} with given sum "6"

Source Code :-

```
public class Main
{
	public static void main(String args[])
	{
		inti,j,arr[]={1,5,7,-1,5};
		for(i=0;i<5;i++)
		{
		   for(j=i+1;j<5;j++)
		   {
		      if((arr[i]+arr[j])==6)
		System.out.println("("+ arr[i] +","+arr[j]+")");
		   }
		}
	}
}
```

Output:-

```
(1,5)
(1,5)
(7,-1)
```

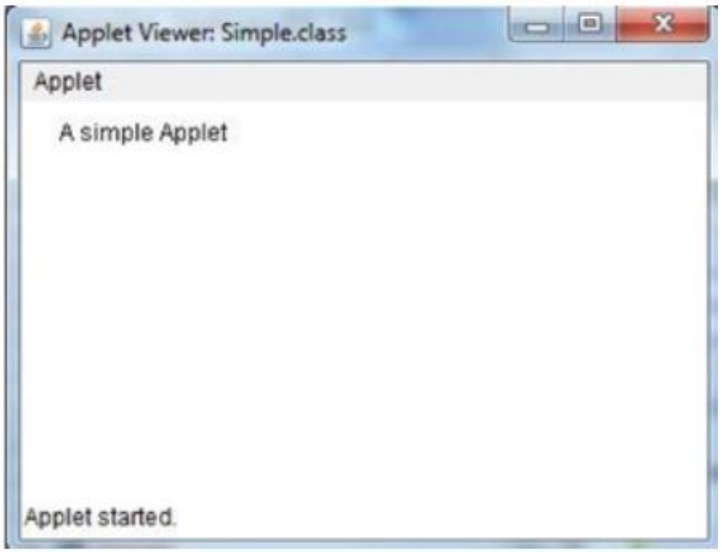
PRACTICAL 4

Objective: Program to implement applet.

SOURCE CODE:

```
import java.awt.*;
import java.applet.*;
public class Simple extends Applet
{
public voidpaint(Graphics g)
 {
  g.drawString("A simple Applet", 20, 20);  }
 }
```

OUTPUT:



PRACTICAL 5

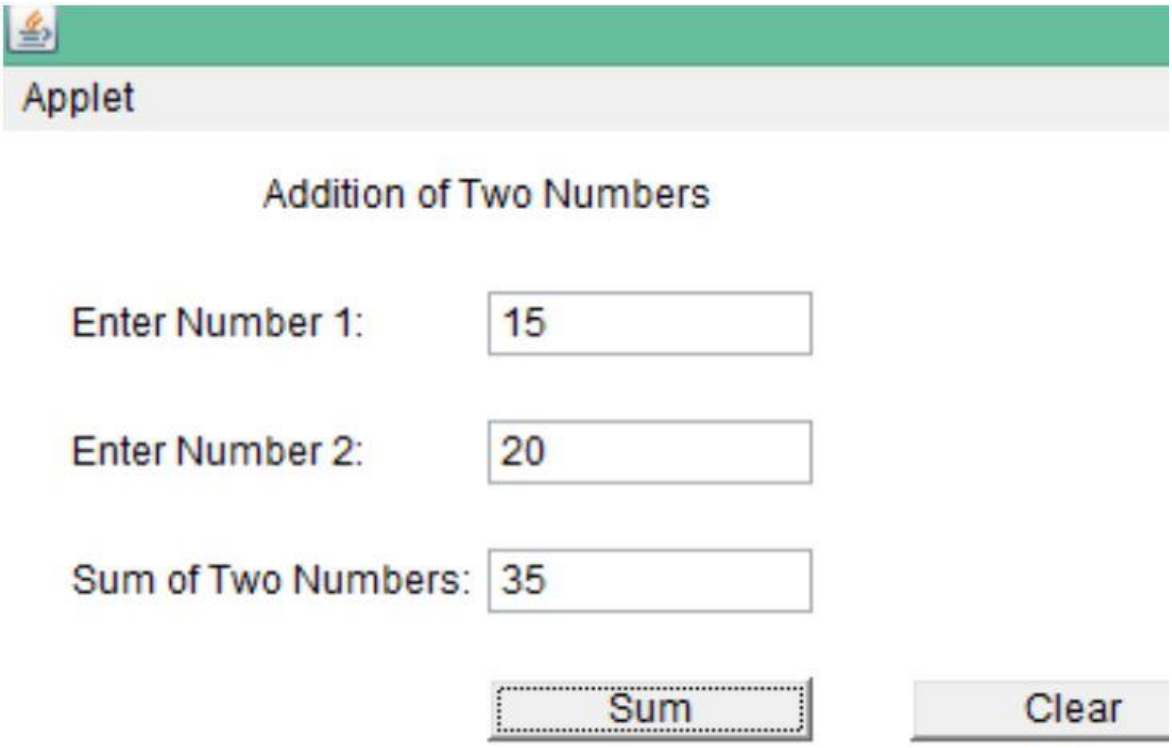
Objective: Applet Event handling : Java program to add two numbers using java Applet.

SOURCE CODE:

```
import java.awt.*;
import java.applet.*;
import java.awt.event.*;
import java.awt.Label;

public class add extends Applet implements ActionListener{
    TextField text1,text2,output;
    Label label1,label2,label3,title;
    Button button,clear;
    public void init(){
      setLayout(null);




        title = new Label("Addition of Two Numbers");
  title.setBounds(80,10,140,20);
  add(title);
  title.setAlignment(title.CENTER);

      label1 = new Label("Enter Number 1: ");
      label1.setBounds(20,50,100,20);
      add(label1);

      text1 = new TextField(5);
      text1.setBounds(150,50,100,20);
      add(text1);

      label2 = new Label("Enter Number 2: ");
      label2.setBounds(20,90,100,20);
      add(label2);
```

```
        text2 = new TextField(5);
        text2.setBounds(150,90,100,20);
        add(text2);

        label3 = new Label("Sum of Two Numbers: ");
        label3.setBounds(20,130,130,20);
        add(label3);

        output = new TextField(5);
        output.setBounds(150,130,100,20);
        add(output);

        button = new Button("Sum");
        button.setBounds(150,170,100,20);
        add(button);

clear = new Button("Clear");
        clear.setBounds(280,170,100,20);
        add(clear);

        button.addActionListener(this);
        clear.addActionListener(this);



        }
        public void actionPerformed(ActionEvent ae){
        int num1=Integer.parseInt(text1.getText());
        int num2=Integer.parseInt(text2.getText());
        int sum=num1+num2;
        output.setText(Integer.toString(sum));
if(ae.getSource() == clear)
{
 text1.setText("");
  text2.setText("");
   output.setText("");
   text1.requestFocus();
    }
}
}
```

OUTPUT:


Applet
Addition of Two Numbers
Enter Number 1:
15
Enter Number 2:
20
Sum of Two Numbers:
35
Sum
Clear

PRACTICAL 6

Objective: Program to create a page with a button using Java AWT.

SOURCE CODE:

```
import java.awt.*;
import java.awt.event.*;
public class ButtonExample {
public static void main(String[] args) {
        Frame f=new Frame("Button Example");
        final TextField tf=new TextField();
        tf.setBounds(50,50, 150,20);
        Button b=new Button("Click Here");
        b.setBounds(50,100,60,30);
        b.addActionListener(new ActionListener(){
        public void actionPerformed(ActionEvent e){
        tf.setText("Welcome to Javatpoint.");
        }
});
f.add(b);f.add(tf);
f.setSize(400,400);
f.setLayout(null);
f.setVisible(true);
}}
```

OUTPUT:

PRACTICAL 7

Objective: Program to create Login page using java AWT.

SOURCE CODE:

```
import java.awt.*;
import java.awt.event.*;
class MyLoginWindow extends Frame
{
   TextField name,pass;
   Button b1,b2;
   MyLoginWindow()
   {
      setLayout(new FlowLayout());
      this.setLayout(null);
      Label n=new Label("Name:",Label.CENTER);
      Label p=new Label("password:",Label.CENTER);
      name=new TextField(20);
      pass=new TextField(20);
      pass.setEchoChar('#');
      b1=new Button("submit");
      b2=new Button("cancel");
      this.add(n);
      this.add(name);
      this.add(p);
      this.add(pass);
      this.add(b1);
      this.add(b2);
      n.setBounds(70,90,90,60);
      p.setBounds(70,130,90,60);
      name.setBounds(200,100,90,20);
      pass.setBounds(200,140,90,20);
      b1.setBounds(100,260,70,40);
      b2.setBounds(180,260,70,40);

   }
   public static void main(String args[])
```

```
    {
        MyLoginWindow ml=new MyLoginWindow();
        ml.setVisible(true);
        ml.setSize(400,400);
        ml.setTitle("my login window");

    }
}
```

OUTPUT:

Program 8

Objective: Java program to implement JDBC connectivity to read employee table with MySQL.

SOURCE CODE:

Java_Mysql.java

```
importjava.sql.*;
public class Java_Mysql {
    public static void main(String args[])
    {
            try {
                    Class.forName("com.mysql.jdbc.Driver");
                    Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/Students","root","ro
ot");
                    Statement stmt = con.createStatement();
                    ResultSetrs = stmt.executeQuery("Select * from Student");
                    while (rs.next())
                    {
                            System.out.println(rs.getInt(1)+"  "+rs.getString(2)+"
"+rs.getString(3));
                    }
                    con.close();
            }
            catch(Exception e)
            {
                    System.out.println(e);
            }
    }
}
```

data.sql

```
CREATE DATABASE Students;
USE Students;
CREATE TABLE Student (
student_id INT(10),
student_name VARCHAR(30),
```

```
student_branch VARCHAR(30)
);
INSERT into Student values (
1234,
"Rohan",
"Information Technology"
);
INSERT into Student values (
5678,
"Max",
"Mechanical"
);
INSERT into Student values (
1432,
"John",
"Computer Science"
);

SELECT * FROM Student;
```

OUTPUT

PRACTICAL 9

Objective: Write a servlet for displaying a string "HELLO WORLD!".

SOURCE CODE:

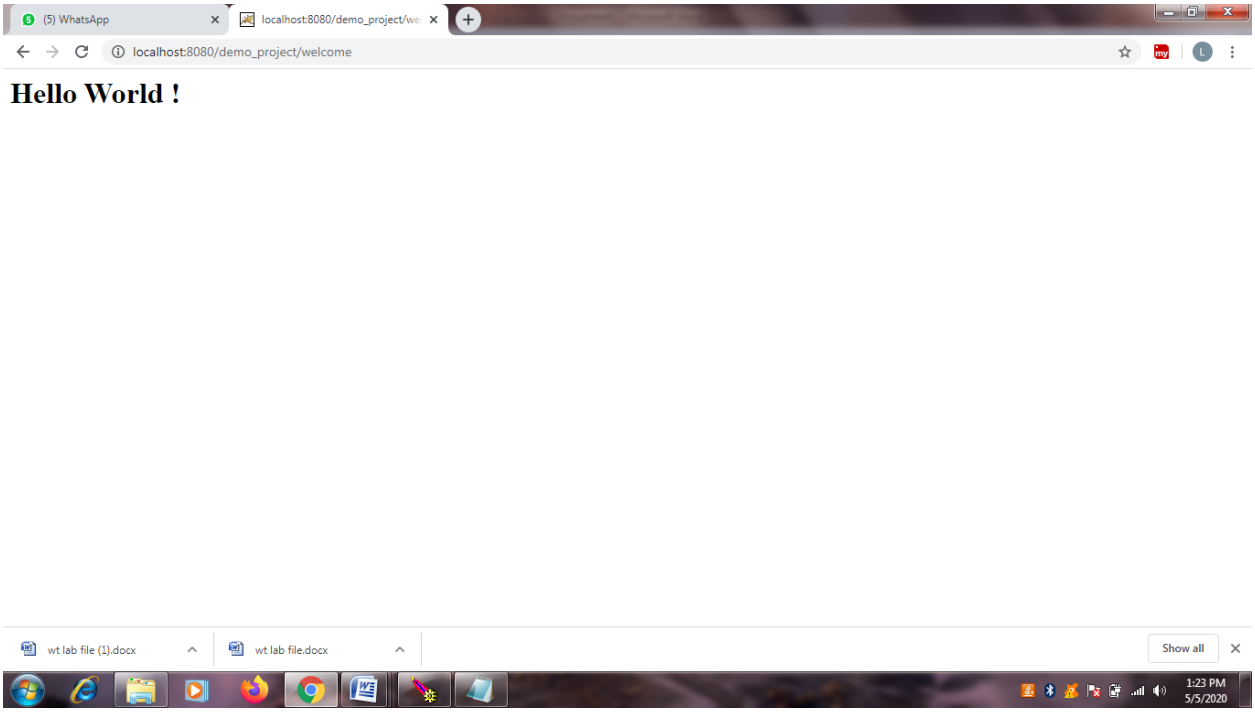
DemoServlet.java

```
import javax.servlet.http.*;
import javax.servlet.*;
import java.io.*;
public class DemoServlet extends HttpServlet{
public void doGet(HttpServletRequest req,HttpServletResponse res)
throws ServletException,IOException
{
res.setContentType("text/html");//setting the content type
PrintWriter pw=res.getWriter();//get the stream to write the data

//writing html in the stream
pw.println("<html><body>");
pw.println("<h1>Hello World !</h1>");
pw.println("</body></html>");

pw.close();//closing the stream
}}
```

web.xml

```
<web-app>

<servlet>
<servlet-name>sonoojaiswal</servlet-name>
<servlet-class>DemoServlet</servlet-class>
</servlet>

<servlet-mapping>
<servlet-name>sonoojaiswal</servlet-name>
<url-pattern>/welcome</url-pattern>
</servlet-mapping>

</web-app>
```

Output



PRACTICAL 10

Objective: Write a servlet for Login operation.In this program we are creating an index page. User can input his/her user name and password. If the user name and password is valid then user can successfully logged in.

Source Code:

Index.html

```
<HTML>
<BODY BGCOLOR="WHEAT">
<CENTER>
<FORM ACTION="./db" method="post">
Username<INPUT TYPE="TEXT" NAME="t1"><BR/><BR/>
password<INPUT TYPE="password" name="t2"><br/><br/>
<input type="submit" value="login"/>
<input type="reset" value="reset"/>
</FORM>
</BODY>
</HTML>
```

LoginServlet.java

```
import javax.servlet.*;
import javax.servlet.http.*;
import java.sql.*;
import java.io.*;
public class LoginServlet extends HttpServlet
{
        Connection con;
        public void init(ServletConfig config)
        {
                try{
                        Class.forName("com.mysql.jdbc.Driver");

con=DriverManager.getConnection("jdbc:mysql://localhost:3306/lopa","root",
"root");
```

```
                System.out.println("Connected");
            }
            catch(Exception e)
            {
                System.out.println(e);
            }
        }//init()
        public void doPost(HttpServletRequest request, HttpServletResponse
response)
        {
            try{
                int flag=0;
                String name=request.getParameter("t1");
                String pass=request.getParameter("t2");
                System.out.println(name+""+pass);
                response.setContentType("text/html");
                PrintWriter pw=response.getWriter();
                pw.println("<html>");
                pw.println("<body>");

                String sql="select * from lopa.login";

                Statement st=con.createStatement();


                ResultSet rs=st.executeQuery(sql);


                while(rs.next())
                {

                    String nm=rs.getString(1);
                    String ps=rs.getString(2);

                                        if(nm.equals(name) &&
ps.equals(pass)){
```

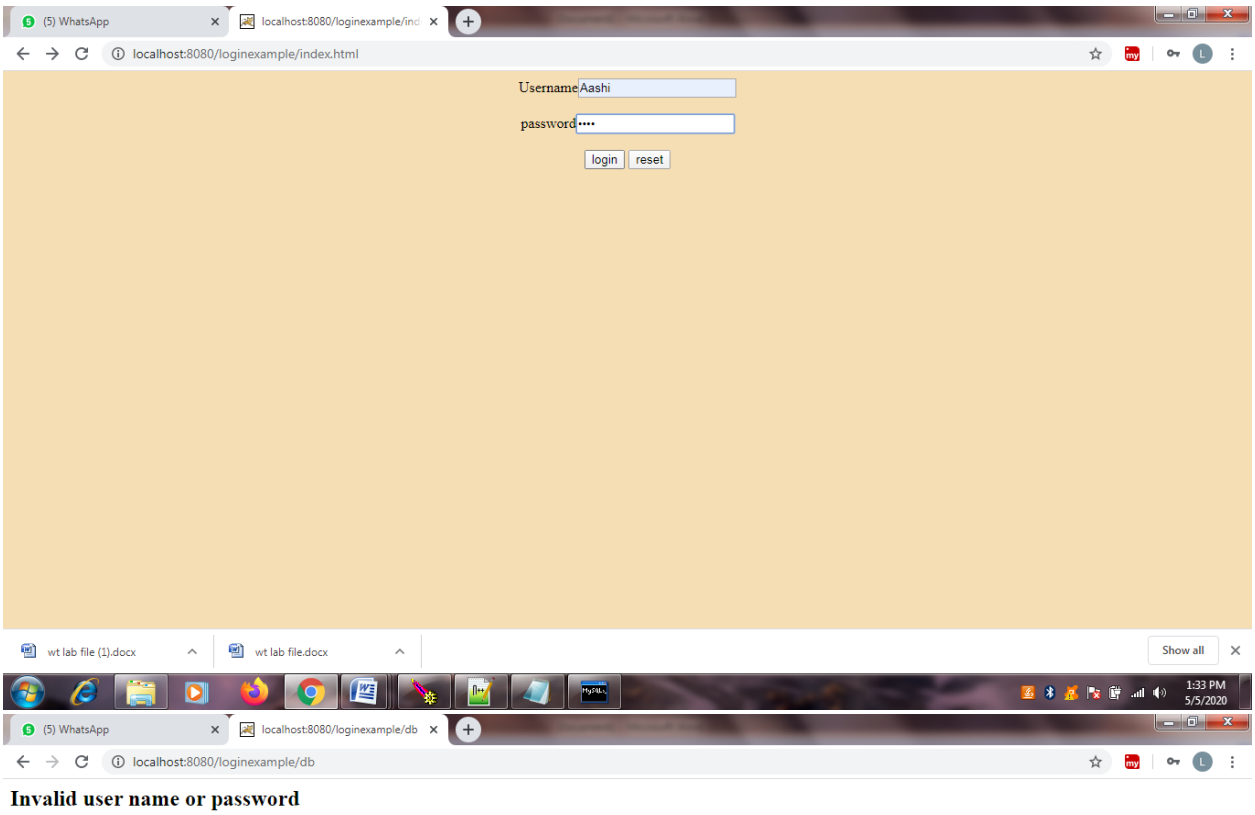
```
                                pw.println("<h1>Logged in successfully</h1>");
                                flag=1;
                                break;
                        }
                }
                if(flag==0){
                        pw.println("<h2>Invalid user name or
password</h2>");
                }

                rs.close();
                st.close();
                pw.close();

        }
        catch(Exception e)
        {
                System.out.println(e);
        }
    }//doPost()
    public void destroy(){
        try{
                con.close();
        }
        catch(Exception e)
        {
                System.out.println(e);
        }
    }//destroy()
}
```

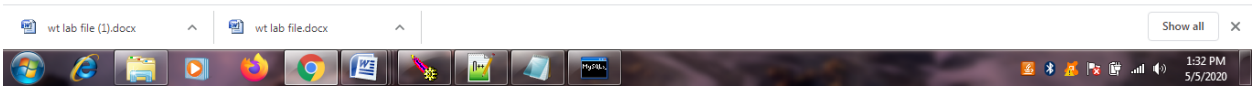
web.xml

```
<web-app>

<servlet>
<servlet-name>servlet1</servlet-name>
<servlet-class>LoginServlet</servlet-class>
</servlet>
```

```
<servlet-mapping>
<servlet-name>servlet1</servlet-name>
<url-pattern>/db</url-pattern>
</servlet-mapping>

</web-app>
```

Output





PRACTICAL 11

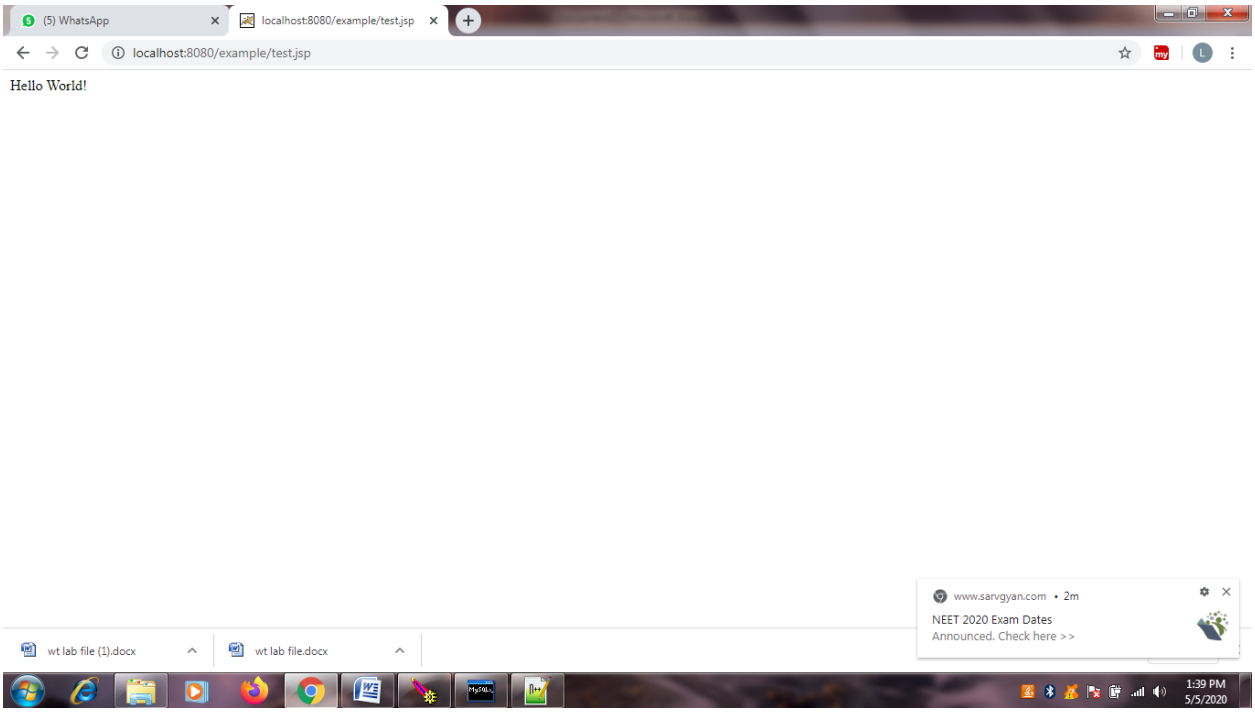
Objective: Write a JSP for displaying a string “HELLO WORLD!”.

Source Code:

test.jsp

```
<html>

<body>

<% out.print("Hello World!");%>

</body>

</html>
```

Output:



PRACTICAL 12

Objective: Create a web application using JSP in which, end user should be able to enter A/C number into the web form and get the Account details.

Source Code:

account.html

```
<HTML>
<BODY BGCOLOR="WHEAT">
<CENTER>
<FORM ACTION="account.jsp">
ENTER A/C NUMBER<INPUT TYPE="TEXT" NAME="t1"><BR/><BR/>
<INPUT TYPE="SUBMIT" VALUE="GETDETAILS">
</FORM>
</BODY>
</HTML>
```

account.jsp

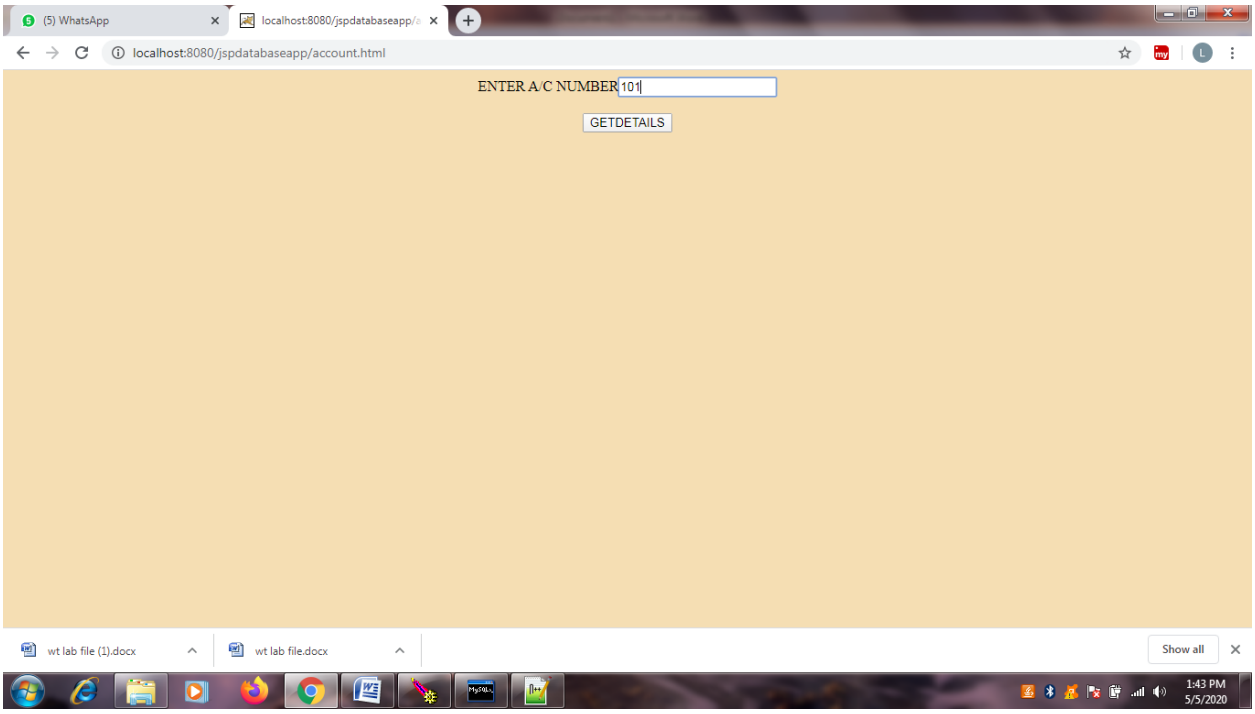
```
<%@ page import="java.sql.*"%>
<%!
Connection con;
public void jspInit()
{
	try{
		Class.forName("com.mysql.jdbc.Driver");

	con=DriverManager.getConnection("jdbc:mysql://localhost:3306/it","root","root");
	}//try
	catch(Exception e){
		System.out.println(e);
	}
}//jspInit()
```

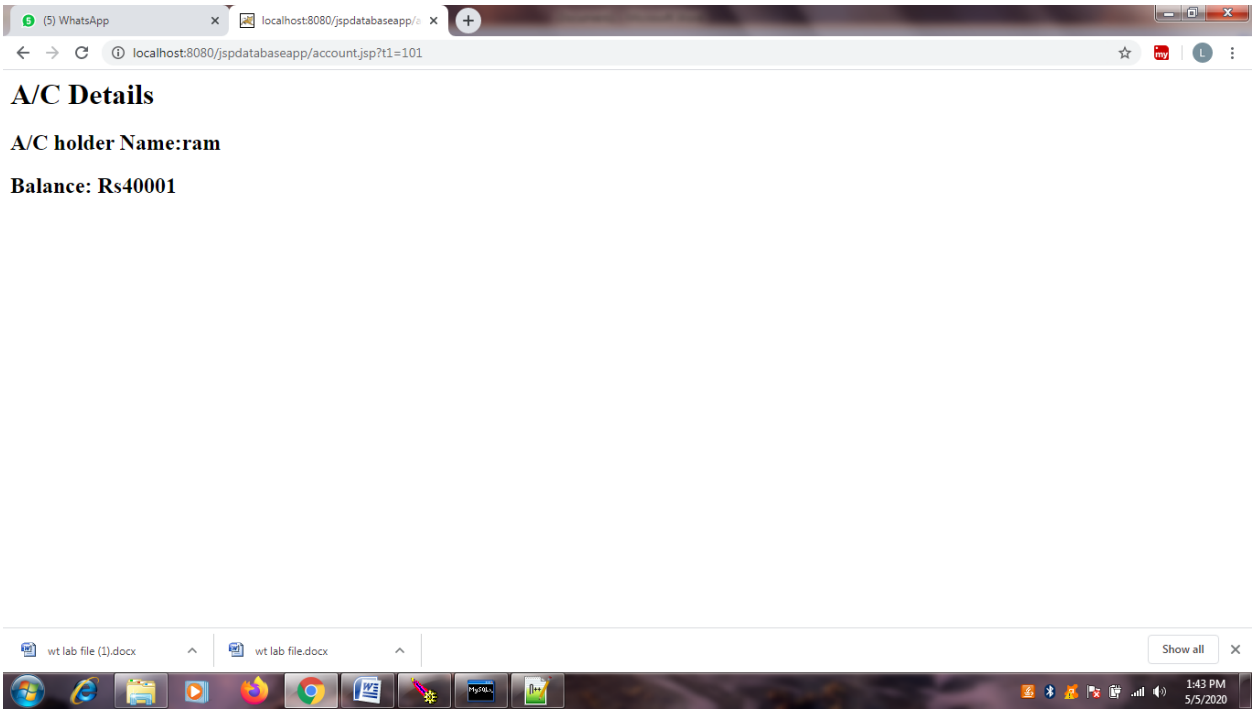
```
public void jspDestroy(){
	try{
		con.close();
	}
	catch(Exception e){
		System.out.println(e);
	}
}//jspDestroy()
%>
<%
int ano=Integer.parseInt(request.getParameter("t1"));
String sql="select * from account where accno="+ano;
Statement st=con.createStatement();
ResultSet rs=st.executeQuery(sql);
if(rs.next())
			{

				String nm=rs.getString(2);
				int bal=rs.getInt(3);

%>
<h1>A/C Details</h1>
<h2>A/C holder Name:<%= nm%></h2>
<h2>Balance: Rs<%= bal %></h2>
<%
}//if
else{
%>
<h1>A/C does not exst</h1>
<%
}//else
%>
```

web.xml

```
<web-app>
</web-app>
```

Output


(5) WhatsApp
localhost:8080/jspdatabaseapp/
localhost:8080/jspdatabaseapp/account.html
ENTER A/C NUMBER 101
GETDETAILS
wt lab file (1).docx
wt lab file.docx
Show all
1:43 PM
5/5/2020


(5) WhatsApp
localhost:8080/jspdatabaseapp/
localhost:8080/jspdatabaseapp/account.jsp?t1=101
A/C Details
A/C holder Name:ram
Balance: Rs40001
wt lab file (1).docx
wt lab file.docx
Show all
1:43 PM
5/5/2020