NAME - ANKITA SHAILLY

ROLL NO. -11

COURSE – BCA , SECTION – G

```java
/*Q. WAP TO SHOW SYNCHRONIZED METHOD PROGRAMING. */
class Table{
synchronized void printTable(int n){
System.out.println("printing the table of "+n);
for(int i=1;i<=5;i++){
System.out.println(n*i);
try{
Thread.sleep(400);
}catch(Exception e){
System.out.println(e);}
}
}
}
class Thread1 extends Thread{
Table t;
Thread1(Table t){
this.t=t;
}
public void run(){
t.printTable(2);
}
}
class Thread2 extends Thread{
```

```java
Table t;

Thread2(Table t){

this.t=t;

}

public void run(){

t.printTable(10);

}

}

public class synchroniztion{

public static void main(String args[]){

Table obj = new Table();

Thread1 t1=new Thread1(obj);

Thread2 t2=new Thread2(obj);

t1.start();

t2.start();

}

}
```

NAME - ANKITA SHAILLY

ROLL NO. -11

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```
C:\Users\HP\OneDrive\Documents\java>java synchroniztion
printing the table of 2
2
4
6
8
10
printing the table of 10
10
20
30
40
50
```

NAME - ANKITA SHAILLY

ROLL NO. -11

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```java
/* Q.WAP IN JAVA SHOWING SOCKET PROGRAMMING . */

import java.net.*;

import java.io.*;

public class server {

    public static void main(String args[])

    throws Exception

    {

        ServerSocket ss=new ServerSocket(2222);

        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="",str1="";

        while(!str.equals("stop")){

            str=din.readUTF();

            System.out.println("CLIENT : "+ str);

            str1=br.readLine();

            dout.writeUTF(str1);

            dout.flush();

        }

        din.close();

        s.close();

        ss.close();

    }
```

```java
//CLIENT CLASS

import java.io.BufferedReader;

import java.io.DataInputStream;

import java.io.DataOutputStream;

import java.io.InputStreamReader;

import java.net.ServerSocket;

import java.net.Socket;

public class client {

    public static void main(String args[])

        throws Exception

    {

      Socket s=new Socket("localhost",2222);

      DataInputStream din=new DataInputStream(s.getInputStream());

      DataOutputStream dout= new DataOutputStream(s.getOutputStream());

      BufferedReader br= new BufferedReader(new InputStreamReader(System.in));

      String str="",str1="";

      while(!str.equals("stop")){

        str=br.readLine();

        dout.writeUTF(str1);

        dout.flush();

        str1=din.readUTF();

        System.out.println("SERVER : "+ str);

      }

      din.close();

      s.close();

    }

  }
```

NAME - ANKITA SHAILLY

ROLL NO. -11

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//SERVER

```
C:\Windows\System32\cmd.exe - java server

Microsoft Windows [Version 10.0.19045.3693]
(c) Microsoft Corporation. All rights reserved.

C:\Users\HP\OneDrive\Documents\java>javac server.java

C:\Users\HP\OneDrive\Documents\java>java server
CLIENT :
hehellohehef hi
CLIENT : hehellohehef hi
doing good
CLIENT : doing good
```

//CLIENT

```
C:\Windows\System32\cmd.exe - java client

Microsoft Windows [Version 10.0.19045.3693]
(c) Microsoft Corporation. All rights reserved.

C:\Users\HP\OneDrive\Documents\java>javac

C:\Users\HP\OneDrive\Documents\java>javac client.java

C:\Users\HP\OneDrive\Documents\java>java client
hello
SERVER : hello
how r u doing
SERVER : how r u doing
good
```

NAME - ANKITA SHAILLY

ROLL NO. -11

COURSE – BCA , SECTION – G


```java
/* Q. WAP IN JAVA USING ARRAYLIST, VECTOR , SET .*/
import java.util.*;
public class arraylist {
    public static void main(String [] arg){
        System.out.println("ARRAYLIST");
        ArrayList list=new ArrayList();
        list.add("hi");
        list.add("hello");
        list.add("bye");
        System.out.println(list);
        System.out.println(list.contains("bye"));
        list.remove("hi");
        System.out.println(list);
        System.out.println(list.contains("b"));
        list.clear();
        System.out.println(list);
        System.out.println("VECTOR");
        Vector v=new Vector();
        v.add("a");
        v.add("b");
        v.add("c");
        System.out.println(v);
        System.out.println("last element of the vector is "+v.firstElement());
        System.out.println("SET");
```

```java
        System.out.println(v);

        Set s = new HashSet();

        s.add("c");

        s.add("c++");

        s.add("java");

        s.add("c++");

        System.out.println(s);
    }
}
```

NAME - ANKITA SHAILLY

ROLL NO. -11

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```
C:\Users\HP\OneDrive\Documents\java>java arraylist
ARRAYLIST
[hi, hello, bye]
true
[hello, bye]
false
[]
VECTOR
[a, b, c]
last element of the vector is a
SET
[a, b, c]
[c++, c, java]
```

NAME - ANKITA SHAILLY

ROLL NO. -11

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```java
/* Q. WAP TO IMPLEMENT FRAME IN JAVA. */
import java.awt.*;
import java.awt.event.*;

public class loginad extends Frame implements ActionListener{
   TextField n,p;
   loginad(){
      setLayout(null);
      Label un=new Label("USERNAME :");
      un.setBounds(80,40,100,30);
      add(un);
       n=new TextField();
      n.setBounds(170,40,250,30);
      add(n);
      Label pw=new Label("PASSWORD :");
      pw.setBounds(80,80,100,30);
      add(pw);
       p=new JTextField();
      p.setBounds(170,80,250,30);
      add(p);
      JButton l=new JButton("Login");
      l.setBounds(250,150,100,40);
      l.addActionListener(this);
      add(l);
      JButton back=new JButton("Back");
```

```java
        back.setBounds(80,200,80,20);

        back.addActionListener(this);

        add(back);

        setSize(600,300);

        setLocation(400,200);

        setVisible(true);

    }

    public void actionPerformed(ActionEvent e){

        String s=e.getActionCommand();

        if(s.equals("LOGIN")){

            setVisible(false);

        }

        else {

            OptionPane.showMessageDialog(null, "INVALID USERNAME OR PASSWORD PLEASE TYR
AGAIN");

        }

    }

    public static void main(String[] arg){

        new loginad();

    }

}
```
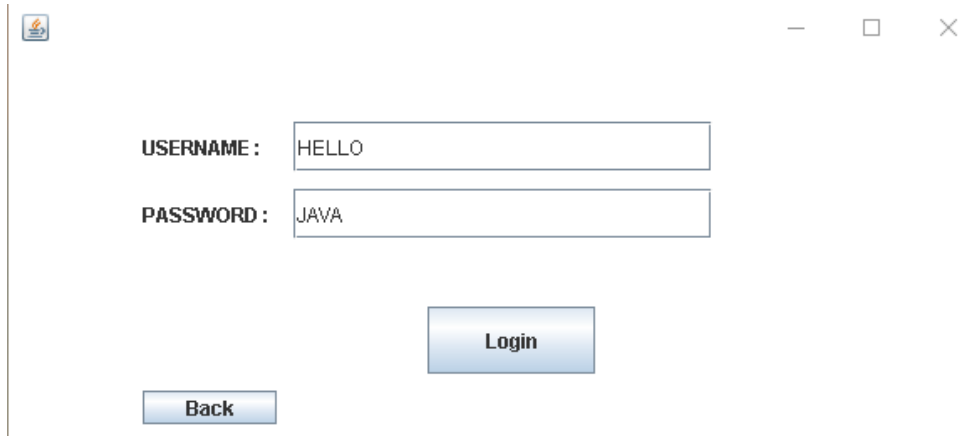
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USERNAME : HELLO

PASSWORD : JAVA

Login

Back