**NAME: HAMSA.G**

**USN: 1DS23IS406**

**PROGRAM 1: VEHICLE**

package pkg1ds23is406;

public class Vehicle {

int no\_of\_seats,no\_of\_wheels;

Vehicle(int s, int w)

{

no\_of\_wheels=w;

no\_of\_seats=s;

}

void display()

{

System.out.println(" number of wheels "+no\_of\_wheels);

System.out.println("total number of seats "+no\_of\_seats);

}

}

class Bike extends Vehicle

{

String regno;

int modelno;

Bike(int w,int s,String r,int m)

{

super(w,s);

regno=r;

modelno=m;

}

void display()

{

System.out.println("Honda Two Wheeler");

super.display();

System.out.println("regno:"+regno);

System.out.println("modelno:"+modelno);

}

}

class Car extends Vehicle

{

String regno;  int modelno;

Car(int w,int s,int b,String n)

{

Super(w,s);  regno=n;  modelno=b;

}

Void display()

{

System.out.println(“Car details”);

Super.display();

System.out.println(“reg no”+regno+”\n”+”modelno:”+modelno);

}

}

public class VehicleDemo

{

public static void main(String []args)

{

Bike b1=new Bike(2,2,”KA52”,1234); b1.display();

Car c1=new Car(4,2,”KA34”,5649); c1.display();

}

}

//OUTPUT:

# Run 1:

Bike details

No of wheels:2

No of seats:2

Reg no:KA52

Modelno:1234

Car details

No of wheels:4

No of seats:2

Regno:KA34 modelno:5649

**Run 2:**

Bike details

No of wheels:2

No of seats:2

Reg no:KA02

Modelno:6789

Car details

No of wheels:4

No of seats:2

Reg no: KA67

modelno: 4562

**PORGRAM 2: ACCOUNT**

package pkg1ds23is406;

import java.io.\*;

public class Account {

long acc,bal;

String name;

public void read()throws Exception

{

DataInputStream in=new DataInputStream(System.in);

System.out.println("enter the name:");

name=in.readLine();

System.out.println("enter the account number:");

acc=Long.parseLong(in.readLine());

System.out.println("enter the account balance:");

bal=Long.parseLong(in.readLine());

}

public void disp()

{

System.out.println("\_\_\_\_Account Details\_\_\_\_");

System.out.println("Name:"+name);

System.out.println("Account Number:"+acc);

System.out.println("Balance:"+bal);

}

}

class Bank{

public static void main(String ar[])

{

try

{

pkg1ds23is406.Account a=new pkg1ds23is406.Account();

a.read();

a.disp();

}

catch(Exception e)

{

System.out.println(e);

}

}

//OUTPUT:

**Run 1**

Enter name : HAMSA

Enter account no : 7866

Enter the balance : 3000000

Account details

Name : HAMSA

Account number : 7866

Balance amount : 3000000

**Run 2**

Enter name : PRAJWAL

Enter account no :5634

Enter the balance : 100000

Account details

Name : PRAJWAL

Account number : 5634

Balance amount : 100000

**PROGRAM 3: EMPLOYEE**

package pkg1ds23is406;

import java.util.Scanner;

public class Employee {

String empId;

String empName;

long empPhone;

float empSalary;

public void accept()

{

Scanner = new Scanner(System.in);

System.out.print("Enter Staff Id: ");

empId = scanner.next();

System.out.print("Enter Name: ");

empName = scanner.next();

System.out.print("Enter Phone: ");

empPhone = scanner.nextLong();

System.out.print("Enter Salary: ");

empSalary = scanner.nextFloat();

}

public void display()

{

System.out.println("Staff Id: " + empId);

System.out.println("Name: " + empName);

System.out.println("Phone: " + empPhone);

System.out.println("Salary: " + empSalary);

} }

class Teaching extends Employee

{

String domain;

int n;

public void accept()

{

super.accept();

Scanner = new Scanner(System.in);

System.out.print("Enter Domain: ");

domain = scanner.next();

System.out.print("Enter Number of Publications: ");

n = scanner.nextInt();

System.out.println("\n");

}

public void display()

{

super.display();

System.out.println("Domain: " + domain);

System.out.println("Publications:" + n);

System.out.println("\n");

}

}

class Technical extends Employee

{

String skill;

public void accept()

{

super.accept();

Scanner = new Scanner(System.in);

System.out.print("Enter technical Skills: ");

skill = scanner.nextLine();

System.out.println("\n");

}

public void display()

{

super.display();

System.out.println("Technical Skills: " + skill);

System.out.println("\n");

}

}

class Contract extends Employee {

int period;

public void accept()

{

super.accept();

Scanner = new Scanner(System.in);

System.out.print("Enter Period: ");

period = scanner.nextInt();

System.out.println("\n");

}

public void display()

{

super.display();

System.out.println("Contract Period: " + period);

} }

class EmployeeFour

{

public static void main(String[] args) {

Teaching = new Teaching();

System.out.println("Enter the details of Teaching Staff");

teaching.accept();

Technical = new Technical();

System.out.println("Enter the details of Technical Staff");

technical.accept();

Contract = new Contract();

System.out.println("Enter the details of Contract Staff");

contract.accept();

System.out.println("The details of Teaching Staff");

teaching.display();

System.out.println("The details of Technical Staff");

technical.display();

System.out.println("The details of Contract Staff");

contract.display();

}

}

**//OUTPUT:**

Enter the employee id

1

Enter the employee name : Hamsa

Enter the employee phonenumber  : 8476314820

Enter the employee salary : 450000

Enter the domain :Web Development

Enter the publications :43

Employee details

Employee id:1

Employee name: Hamsa

Employee phone number: 8476314820

Employee salary:450000

Domain: Web development Publications: 43 Enter the employee id:2

Enter the employee name:

Enter the employee phonenumber:9725001004

Enter the employee salary:12000

Enter the skills: App DEvelopment

Employee details

Employee id:10

Employee name :Disha

Employee phone number: 9725001004

Employee salary:12000

Skills: App Development

Enter the employee id: 11

Enter the employee name: Chandana

Enter the employee phonenumber:8320042010

Enter the employee salary:450000

Enter the period :11

Employee details

Employee id:11

Employee name: Chandana

Employee phone number: 8320042010

Employee salary:450000

Period:11

**Run 2**

Enter the employee id: 87

Enter the employee name: Sinchana

Enter the employee phone number: 8452389043

Enter the employee salary: 34267

Enter the domain: Internet of Things

Enter the publications: 43

Employee details

Employee id:87

Employee name: Sinchana

Employee phone number: 8452389043

Employee salary: 34267

Domain: Internet of Things

Publications: 43

Enter the employee id: 57

Enter the employee name: Prakash

Enter the employee phone number: 587496135

Enter the employee salary: 58796

Enter the skills: Python, C++, Julia

Employee details

Employee id: 57

Employee name: Prakash

Employee phone number: 587496135

Employee salary: 58796

Skills: Python, C++, Juila

Enter the employee id: 39

Enter the employee name: Rithik

Enter the employee phone number: 9873546218

Enter the employee salary: 68532

Enter the period: 5

Employee details

Employee id: 39

Employee name: Rithik

Employee phone number: 9873546218

Employee salary: 68532

Period: 5

**PROGRAM 4: EXCEPTION HANDLING**

Package pkg1ds23is406;

import java.util.Scanner;

public class ExceptionDemo {

public static void main(String[]args)

{

int a,b,result;

Scanner input= new Scanner(System.in);

System.out.println(“Input of two integers”);

a = input.nextInt();  b=input.nextInt();

try  {

result = a/b;

System.out.println(“result = “+ result);

}

catch(ArithmeticException e)

{

System.out.println(“Exception caught : divide by zero error” + e);

}

int array[]={2,3,4,5,6};

try{

System.out.println(“” + array[5]);

}

catch(ArrayIndexOutOfBoundsException e1 )

{

System.out.println(“Array Index Out of Bound “+e1);

}

}

}

**//OUTPUT:**

**Run 1:**

Input the two integers

3

0

Exception caught : divide by zero error

Array Index Out of Bound

**Run 2:**

Input the two integers

6

3

Result: 2

Array Index Out of Bound

**PROGRAM 5: URL**

Package pkg1ds23is406;

import java.net.URL; public class URLMain {

public static void main(String args[])

{  try

{

URL url=new

URL([https://www.example.com/path/to/file.html?key=value#fragment)](https://www.example.com/path/to/file.html?key=value#fragment);

System.out.println(“Protocol:”+url.getProtocol());

System.out.println(“Host:”+url.getHost());

System.out.println(“Port:”+url.getPort());

System.out.println(“Path:”+url.getPath());

System.out.println(“query:”+url.getQuery());

System.out.println(“Fragment:”+url.getRef());

}

catch(Exception e)

{

System.out.println(“Error:”+e.getMessage());

}

}

}

**//OUTPUT:**

Protocol:https

Host:www.example.com

Port:-1

Path:/path/to/file.html

Query:key=value

Fragment:fragment

Run 2

For url =https://www.google.co.in/

Protocol:https

Host: www.google.co.in

Port:-1

Path:./

Query: null

Fragment: null

**PROGRAM 6: SERVER CLIENT**

**//Server side**

Package pkg1ds23is406;

import java.io.\*;

import java.net.\*;

public class ServerSide {

public static void main(String[] args){  try{

ServerSocket ss = new ServerSocket(3306);

Socket s = ss.accept();

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

String str = (String)dis.readUTF();

System.out.println(“message : “+str); ss.close();

}

catch(Exception e)

{

System.out.println(e);

}

}

}

**// Client side**

Package pkg1ds23is406;

import java.io.\*;

import java.net.\*;

public class Client {

public static void main(String[] args)

{  try  {

Socket s = new Socket(“localhost”,3306);

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

dout.writeUTF(“ Hello server”);

dout.flush();

dout.close();

s.close();

}

catch(Exception e)

{

System.out.println(e);

}

}

}

**//Output:**

Hello server

Run 2

Hello world

**PROGRAM 7: JDBC CONNECTION**

//jdbc

package pkg1ds23is406;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.Statement;

import java.sql.\*;

import java.sql.DriverManager;

public class InsertJDBCdemo {

public static void main(String args[])

{

int id=406;

String name="name";

int age=4;

try

{

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

Connection con=DriverManager.getConnection("jdbc:mysql://localhost:3306/1ds23is406","root","root");

Statement stmt=con.createStatement();

String q1="INSERT INTO Student VALUES('"+id+"','"+name+"','"+age+"')";

int x=stmt.executeUpdate(q1);

if(x>0)

System.out.println("Succefully inserted");

else

System.out.println("insert failed");

ResultSet rs=stmt.executeQuery("select \* from student");

while(rs.next())

System.out.println(rs.getInt(1)+" "+rs.getString(2)+" "+rs.getInt(3));

con.close();

}

catch(Exception e)

{

System.out.println(e);

}

}

//jdbc userinput

import java.sql.\*; import java.sql.DriverManager;

import java.util.\*;

public class InsertJDBCuserInput

{

public static void main(String args[])

{  int sem;  String name,usn;

Scanner s1=new Scanner(System.in);

System.out.println(“Enter usn of student”);

usn=s1.next();

System.out.println(“Enter name of student”);

name=s1.next();

System.out.println(“Enter sem of student”);

sem=s1.nextInt();

Try  {

Class.forName(“com.mysql.jdbc.Driver”);

Connection con=DriverManager.getConnection(“jdbc:mysql://localhost:3306/1ds22is038”,”root”,”root”);

Statement stmt=con.createStatement();

String q1 = “insert into student values(‘” +usn+ “’, ‘” +name+ “’, ‘” +sem+ “’)”;

Int x = stmt.executeUpdate(q1);

If (x > 0)

System.out.println(“Successfully Inserted”);

Else

System.out.println(“Insert Failed”);

Con.close();

}

Catch(Exception e)

{

System.out.println€;

}

}

}

**OUTPUT:**

Enter usn of student

1DS22IS038

Enter name of student

Chandana

Enter sem of student

4

Successfully Inserted

Run 2

Enter usn of student

1DS22IS044

Enter name of student

Disha

Enter sem of student

4

Successfully Inserted

}

}

//Insert details

Package pkg1ds23is406;

Import java.sql.\*;

Import java.sql.DriverManager;

Public class InsertJDBCdemo

{

Public static void main(String args[])

{

String usn=”1ds22is055”;

String name = “pavan”;

Int sem=5;

Try  {

Class.forName(“com.mysql.jdbc.Driver”); Connection con=DriverManager.getConnection(“jdbc:mysql://localhost:3306/1DS22IS038”

,”root”,”root”);

Statement stmt=con.createStatement();

String q1 = “insert into Student values(‘” +usn+ “’, ‘” +name+ “’, ‘”

+sem+ “’)”;

Int x = stmt.executeUpdate(q1);

If (x > 0)

System.out.println(“Successfully Inserted”);

Else

System.out.println(“Insert Failed”);

Con.close();

}

Catch(Exception e)

{

System.out.println€;

}

}

}

**OUTPUT:**

Successfully inserted

Overall output in SQL command

Select \* from Student

+---------------+------------+-----+

| USN | name | sem |

+---------------+------------+-----+

| 1ds22is038 | chandana | 4 |

| 1ds22is044 | Disha. | 4 |

| 1ds23is023 | shriya | 3 |

| 1ds22is406 | hamsa | 6 |

| 1ds22is055 | pavan | 5 |

+--------------+-------------+----+