**Experiment 6**

* Write a program to create interface A, in this interface we have two method meth1 and meth2. Implements this interface in another class named MyClass.

**Algo:-**

1. Start

2. Create interface A and create methods meth1 & meth2.

3. Create class Myclass and implement the interface A in it.

4. Write code to display in Myclass

5. Create main class and create object of MyClass to call meth1 &2.

6. Stop

**Code:-**

interface A

{

void meth1();

void meth2();

}

class MyClass implements A

{

public void meth1 ( )

{

System.out.println("Implementing meth1() in MyClass.");

}

public void meth2()

{

System.out.println ("Implement meth2() in MyClass.");

}

}

public class lab6i

{

public static void main(String[] args)

{

MyClass ob = new MyClass();

ob.meth1();

ob.meth2();

System.out.println("Arjun singh--> *R214220232* ");

}

}

**Output:-**

* Implement Multiple and multilevel Inheritance using Interface.

**Algo:-**

1. START.

2. DECLARE INTERFACES BUYPEN AND MARKET, AND A CLASS ME THAT IMPLEMENTS BOTH OF THESE INTERFACES

3. USE MEMBER FUNCTION FROM BOTH INTERFACES IN THE OBJECT OF CLASS ME.

4. DECLARE INTERFACES VEHICLE AND CAR AND A CLASS I10.

5. WHERE CAR EXTENDS VEHICLE, AND THE CLASS I10 IMPLEMENTS ONLY CAR.

6. USE MEMBER FUNCTONS OF VEHICLE AND CAR IN OBJECT CLASS I10.

7. STOP

**Code:-**

public class lab6ii

{

public static void main(String args[])

{

System.out.println("Arjun singh--> *R214220232*");

me a = new me();

a.shop();

a.buy();

System.out.println("This shows multiple inheritance.(class me could use function from both the interfaces)\n\n");

i10 mine=new i10();

mine.seats();

mine.MoT();

System.out.println("This shows multi-level inheritance.class i10 didnt inherit from vehicle but was able to use MoT function");

}

}

interface buypen

{

void buy();

}

interface market

{

void shop();

}

class me implements buypen, market {

public void buy() {

System.out.println("I bought a pen.");

}

public void shop() {

System.out.println("I went to the marketplace.");

}

}

interface vehicle

{

void MoT();

}

interface car extends vehicle

{

void seats();

}

class i10 implements car

{

String col;

int model;

int seats;

i10()

{

model=6;

col="Blazing red";

seats=5;

}

public void seats()

{

System.out.println("No of seats:"+seats);

}

public void MoT()

{

System.out.println("Its a car, obviously LAND.");

}

}

**Output:-**

* Write a program to create an Interface having two methods division and modules. Create a class, which overrides these methods.

**Algo:-**

1. Start

2. Create interface method and create methods division and modulus

3. Create classMyClassiii and implement the interface

4. Write the code in the MyClass to display the division and module of the parameters.

5. Create main and create object of MyClass .

6. Let the use enter dividend and divisor, and then call both the methods.

7. Stop

**Code:-**

import java.util.Scanner;

public class lab6iii

{

public static void main(String[] args)

{

method obj=new MyClassiii();

System.out.println("Arjun singh--> *R214220232*");

System.out.println("Enter devidend:");

Scanner sc= new Scanner(System.in);

int a=sc.nextInt();

System.out.println("enter divisor:");

int b=sc.nextInt();

System.out.println("The quotient is : "+obj.division(a,b));

System.out.println("The remainder is : "+obj.modulus(a,b));

}

}

interface method

{

float division(float a,float b);

float modulus(float a,float b);

}

class MyClassiii implements method {

public float division(float a, float b) {

return (int) a / (int) b;

}

public float modulus(float a, float b) {

return a % b;

}

}

**Output:-**

* Write a program to create interface named Test. In this interface, the member function is square. Implement this interface in Arithmetic class. Create one new class called ToTestInt. In this class use the object of Arithmetic class.

**Algo:-**

1. Start

2. Create interface test and create member function square

3. Create class arithmetic to implement the test

4. Write the code in arithmetic class of a squaring.

5. Create class ToTestInt and create object of class arithmetic in ToTestInt

6. Create class Test and create object of ToTestInt

7. Create object of ToTestint in main class and call the function.

**Code:-**

import java.util.Scanner;

public class lab6iv

{

public static void main(String []args)

{

System.out.println("Arjun singh--> *R214220232*");

ToTestInt x= new ToTestInt();

Scanner sc=new Scanner(System.in);

System.out.println("Enter any number: ");

int a=sc.nextInt();

System.out.println("\nThe square of "+a+" is "+x.return\_ans(a));

}

}

interface test

{

int square();

}

class arithmetic implements test

{

int b;

arithmetic(int x)

{

b = x;

}

public int square()

{

return (b\*b);

}

}

class ToTestInt

{

public int return\_ans(int x)

{

arithmetic a=new arithmetic(x);

return a.square();

}

}

**Output:-**