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Exercise 2:

INHERITANCE

AIM:

To develop a java program to implement inheritance.

PSEUDOCODE:

Class Student

Integer roll_number

Method getValue(integer n)

Assign roll_number to n

Method putValue()

Print roll_number

End Student class

Class Test inherit the property of Student class

floating value part1, part2

Method getValue(float m1, float m2)//Method overriding

Assign part1 to m1 and part2 to m2

Method putMarks()

Print part1 and part2

End Test class

Interface Sports

Floating value sportwt

Assign 66.0F to sportwt

Method putwt()

End interface

Class Result inherit from Test class and implement from Sports class

Floating value total

Method putwt()

Print sportwt

Method display()

Total=part1+part2+sportwt

```
    putValue()
    putMarks()
    putwt()
    print Total
End Result class
```

Class Output

Main method

```
    Create result's object student1
    Student1.getValue(001)
    Student1.getValue(80.5F, 77.0F)
    Student1.display()
    End main
End Output class
```

CODE:

```
import java.io.*;
class Student
{
    int roll_number;
    void getValue(int n)
    {
        roll_number=n;
    }
    void putValue( )
    {
        System.out.println("Roll No.:"+roll_number);
    }
}
class Test extends Student
{
    float part1,part2;
    void getValue(float m1, float m2)
    {
        part1 = m1;
        part2 = m2;
    }
    void putMarks( )
    {
        System.out.println("MARKS OBTAINED");
        System.out.println("Mark 1="+part1);
    }
}
```

```

        System.out.println("Mark 2="+part2);
    }
}
interface Sports
{
    float swt=6.0F;
    void putwt();
}
class Results extends Test implements Sports
{
    float total;
    public void putwt( )
    {
        System.out.println("Sportswt="+swt);
    }
    void display( )
    {
        total=part1+part2+swt;
        putValue( );
        putMarks( );
        putwt( );
        System.out.println("Total Score="+total);
    }
}
class Output
{
    public static void main(String args[ ])
    {
        Results student1=new Results();
        student1.getValue(1234);
        student1.getValue(27.5F,33.0F);
        student1.display();
    }
}

```

OUTPUT:

```
E:\JAVA>javac Output.java  
  
E:\JAVA>java Output  
Roll No.:1  
MARKS OBTAINED  
Mark 1=80.5  
Mark 2=77.0  
Sportswt=66.0  
Total Score=223.5
```

RESULT:

Thus, The program has been executed successfully.