NAME:ROHAN NYATI

SAP ID:500075940

ROLL NO. : R177219148

BATCH-5(AI&ML)

Experiment-5

1) 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.

Code ->

```
interface Test {
     void Square (int x);
}
class Arithmetic implements Test {
     public void Square (int x) {
          System.out.println("Sqaure of 8 is -> "+x*x);
     }
}
public class ToTestInt {
     public static void main (String[] args) {
          Arithmetic A = new Arithmetic();
          A.Square(8);
     }
   }
```

Output ->

```
Sqaure of 8 is -> 64
```

2) 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.

Code ->

```
interface A {
```

```
    void meth1();
    void meth2();
}
class Myclass implements A {
    public void meth1() {
        System.out.println("Hello, Myself Somil Garg");
    }
    public void meth2() {
        System.out.println("My Sap Id is 500076441");
    }
}
public class Display {
    public static void main(String[] args) {
        Myclass M = new Myclass();
        M.meth1();
        M.meth2();
    }
```

Output ->

```
Hello, Myself Somil Garg
My Sap Id is 500076441
```

3) Write a program in Java to show the usefulness of Interfaces as a place to keep constant value of the program.

Code ->

```
interface A {
    void area(int r);
   double pi = 3.14;
}
class Const implements A {
    public void area(int r){
        System.out.println("Area -> " +pi*r*r);
    }
}
public class Class {
    public static void main(String[] args) {
        Const C = new Const();
        C.area(7);
    }
```

```
}
```

Output ->

```
Area -> 153.86
```

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

Code ->

```
interface Methods {
     void divide(int x , int y);
     void modules(int x , int y);
}
class Overrides  implements Methods {
     public void divide(int x , int y ) {
          System.out.println("Divide -> "+x/y);
     }
     public void modules(int x , int y) {
          System.out.println("Modules -> "+x%y);
     }
}
public class Function {
     public static void main(String[] args) {
          Overrides O = new Overrides();
          O.divide(24, 8);
          O.modules(24, 8);
     }
}
```

Output ->

```
Divide -> 3
Modules -> 0
```