**Experiment: 1**

**Aim:** WAP to implement public and private modifier in class?

**Software:** VS Code

**Code:-**

import java.util.\*;

class Outer

{

    public int a = 20 ;

    private class inner

    {

        int b = 20;

    }

}

public class Programm1

{

    public static void main(String[] args)

    {

       Scanner sc = new Scanner(System.in) ;

       Outer O = new Outer();

      // Inner I = new Inner() ;

       System.out.println("Public Integer:- " + O.a);

       //System.out.println("Private Integer:- " + O.b);

      // System.out.println("Nested Class:- "+I.b);

       sc.close();

    }

}

/\* This Code Is Showing the difference between the public and private variables. Here "a" is a is a public integer.

That Is why it will be printed. but b is protected therefore the existance of b is bounded for that class only.

// That is why it is showing error that b is not visible. \*/

**Output:-**

**Experiment: 2**

**Aim:** WAP to implement public and private modifier in method?

**Software:** VS Code

**Code:**

class Outer

{

    // private static int sum(int a,int b)

    // {

    //     return a+b;

    // }

    public static int sub(int a,int b)

    {

        return a -b ;

    }

}

public class Programm2

{

    public static void main(String[] args)

    {

        //int sum = Outer.sum(5,6);

        int sub = Outer.sub(6,5);

        System.out.println(" " + sub);

    }

}

/\*This code is showing the difference between the public and private methods. here sum is a private method

 \*  Here Sum is a private method. that is why it is showing the error that sum is not visible. but sub is a public

 \* metod. so it is accesble.

 \*/

**Output: -**

**Experiment: 3**

**Aim:** WAP to implement public and private modifier in variable

**Software:** VS Code

**Code:-**

class Outer

{

    private int a = 20 ;

    public int b = 10 ;

}

public class Programm3

{

    public static void main(String[] args)

    {

        Outer O = new Outer() ;

        System.out.println("Public Integer Is :- " + O.b);

       // System.out.println("Private Integer Is :- " + O.a);

    }

}

/\* This Code Is Showing the difference between the public and private variables. Here "a" is a is a public integer.

That Is why it will be printed. but b is protected therefore the existance of b is bounded for that class only.

 That is why it is showing error that b is not visible. \*/

**Output:**

**Experiment: 4**

**Aim:** WAP to implement public and private modifier in class,method and variable?

**Software:** VS Code

**Code:-**

class Outer

{

    public int a = 20;

    private int b = 10;

    public static int sum(int a,int b)

    {

        return a + b;

    }

    private static int sub(int a,int b)

    {

        return a - b ;

    }

    private class Inner

    {

        int c = 5;

    }

}

public class Programm4

{

    public static void main(String[] args)

    {

        Outer O = new Outer();

//        Inner I = new Inner();

        System.out.println("Public Integer:- " + O.a);

//        System.out.println("Private Ineger:- " + O.b);

        int c = Outer.sum(6, 7);

//        int d = Inner.sub(7,5) ;

    }

}

/\*

 \*  In this code class outer is a public class therefore it is accesable in psvm but inner class is private.

 \* So it is not accesable. Same as Sum is a public method so it is accesable and sub is a private method so it is

 \* not accesable on psvm.

 \* And a is a public variable so it is accesable and b is a private method so it is not accesable.

 \*/

**Output:**

**Experiment: 5**

**Aim:** WAP to implement public and private modifier in nested class?

**Software:** VS Code

**Code:**

import java.util.\*;

import javax.naming.InvalidNameException;

// WAP to impliment public and private modifiers in nested Class.

class Outer

{

    public int a = 20 ;

    private int b = 10 ;

    private class Inner

    {

        public int c = 30;

        private int d = 25;

        Inner(int num)

        {

            num = a ;

            System.out.println(num);

        }

    }

}

public class Programm5

{

    public static void main(String[] args)

    {

        Outer O = new Outer() ;

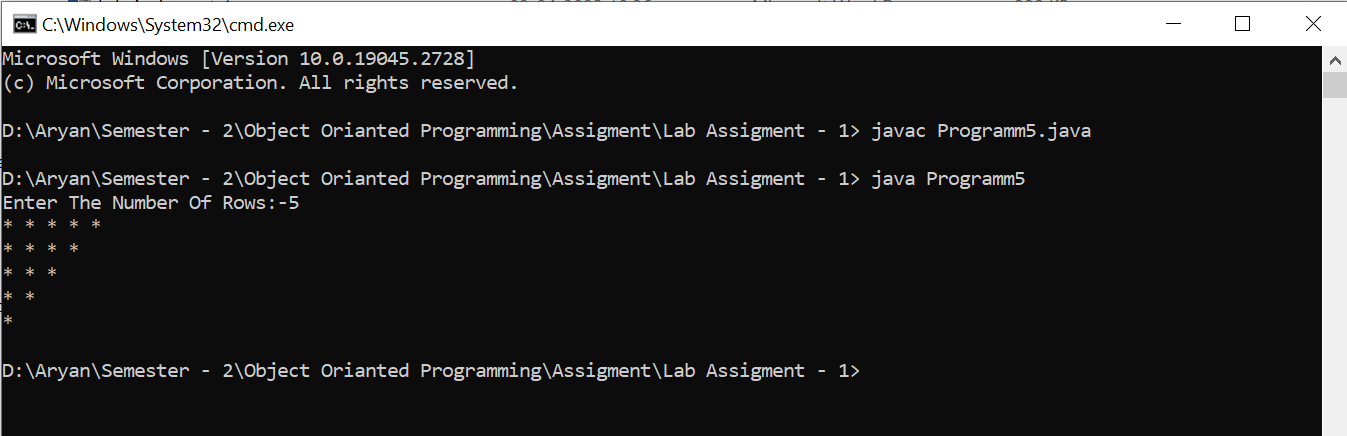
        Inner I = new Inner() ;

    }

}

/\* In this Programm Inner class Is private.that is why we can't acess it  \*/

**Output:-**

****