Marwadi University
Faculty of Technology
Department of Information and Communication Technology

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.
```

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```
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:-

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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.
 */
```

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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:

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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);
```

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```
        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:

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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() ;
    }
```

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```
}

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

Output:-