LAB Exercise #6: Static fields/Methods and Random Number:
Assignment#3: Complete all exercises and upload against Assignment#3 on cuonline.

Example#1:
Consider the following program:

```
public class StaticMethod {
    private int a;
    private static int b;

    //one argument constructor
    public StaticMethod(int arg){
        b +=arg;
        a=arg;
     }
   //No argument constructor
    public StaticMethod(){
      for(int i=1;i<=5;i++)
          ++b;
      }
    public void setA(int value){
        a=value;
        setB(value);//static method

    }
    public  static void setB(int value){
        if(value==5)
            return;
        b +=value;


    }

    public static void showInfo(StaticMethod obj){
        System.out.printf("Object: %d \t %d\n",obj.a,obj.b);
    }



public static void main(String arg[]){


     StaticMethod obj1=new StaticMethod();
     showInfo(obj1);

     StaticMethod obj2 =new StaticMethod(5);
     showInfo(obj2);
     showInfo(obj1);
     obj1.setA(10);
```

```
        showInfo(obj1);
        showInfo(obj2);

        obj1.setA(5);

        showInfo(obj1);
        showInfo(obj2);
}
}
```

Exercise#1: **Write-down Its OUTPUT without executing that program:**

Example:2

Following program generate random numbers in range of 1-6 and display them as four rows.

```
2  // Shifted and scaled random integers.
3  import java.util.Random; // program uses class Random
4
5  public class RandomIntegers
6  {
7     public static void main( String[] args )
8     {
9        Random randomNumbers = new Random(); // random number generator
10       int face; // stores each random integer generated
11
12       // loop 20 times
13       for ( int counter = 1; counter <= 20; counter++ )
14       {
15          // pick random integer from 1 to 6
16          face = 1 + randomNumbers.nextInt( 6 );
17
18          System.out.printf( "%d  ", face ); // display generated value
19
20          // if counter is divisible by 5, start a new line of output
21          if ( counter % 5 == 0 )
22             System.out.println();
23       } // end for
24    } // end main
25 } // end class RandomIntegers
```

Exercise#2:

Modify the program and count the frequency of each number using switch statement. Implement using a static or non-static function.
Or
You can use an array of type int to count the frequencies of each number (think how to use don't ask me)

Exercise#3:
Create a simple guessing the number game.
Your program should generate a random number between [1 to 10 for example] and prompt the user to guess the number. If user couldn't able to guess the number correctly then the program should provide some hint to user like too low or too high.
When the user correctly guess the number then it should display how many attempts have been made to guess the number. If with three attempts the user correctly guess the number it should says you win otherwise you lose.
Program should execute unless user correctly guess the number.
Important: Use methods, do not write any logic in main method.

Exercise#4 Create a Snake ladder game between two players.
The game should be played automatically. Maximum points/ladder should be 100
User two check for following down from ladders for example at 36 and 77
The player who reached first to top ladder will win