Objectives:
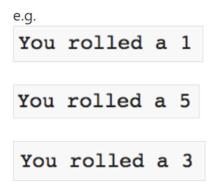
To familiarize students with the concepts in java:

a. Strings and String methods
b. Random class
c. Inner and Static classes
d. Static variables and Static Methods

Task 1:

a. Create an array named ch_Arr={'H','e','l','l','o',' ','W','o','r','l','d','!'}
b. Now create a string from this array

Hint: You can use: new String()

Task 2: Write a java program, which takes string as input and counts how many times the character **a** appears in that string, ignore the case of character **a.**

Task 3: Consider the following string: "Lazy fox is jumping", display the indexes of all **i** characters in this string

Task 4: Write a java program which reverses a string, Like Brown Is converted to nworB

Task 5: Write some code that generates a random number to simulate the roll of a six-sided dice. Print the number rolled.

e.g.

```
You rolled a 1
```

```
You rolled a 5
```

```
You rolled a 3
```

Task 6:

1. Create a class CPU, and add an instance variable named price
2. Add an inner class named Processor inside CPU, Processor has number of cores and a manufacturer
3. Add a method in Processor called getCache() which returns a value of 4.3
4. Add another class inside Processor class, this class should be static and its name is RAM, A RAM has memory and manufacturer(static), it has a static method getClockSpeed() which returns a value of 5.5
5. Inside main method, create three objects:
   a. Object of CPU class
   b. Object of RAM Class
   c. Object of Processor Class
6. Call the getCahce() and getClockSpeed() method