# Assignment 3

## Instructions

- Max score is 10.
- Deadline is 11:59PM Sept 30, Saturday.
- Extra credits are added only if total score is less than 10.
- Try every question and keep practising from online sites.
- Upload all your assignments to a single repository named 'Assignments'.
- Contact us if any assistance is needed.

## Questions

1. Find the error in the following code and explain in few lines why it is wrong. (Score 1)

   Here is the code.

```java
public class Book{
    int size;
    int price;
    String name;

    public Book(int size){
        this.size = size;
    }

    public Book(int size, int price, String name){
        super();
        this.size = size;
        this.price = price;
        this.name = name;
    }

    public Book(int price){
        this.price = price;
    }

    public setName(String name){
        return name;
    }
}
```

2. Find the error in the following code and explain in few lines why it is wrong. (Score 1)

Here is the code.

```java
class Clock{
    String time;

    void getTime(){
        return time;
    }

    void setTime(String t){
        time = t ;
    }
}
```

3. Write a Java function to remove vowels in a string. (Score 2)

i. The function should take a string as input.
ii. Should return the input string after omitting the vowels.
Here is the prototype you can work with

```java
public String removeVowelsFromString(String input){

// add your code here

}
```

4. Write a java function to check if two strings are Anagrams or not. (Score 2)

i. The function should take two input strings.
ii. Should return a boolean 'true' if the inputs are Anagrams else return 'false'.
Here is the prototype you can work with

```java
public boolean checkIfTwoStringsAreAnagrams(String s1, String s2){

// add your code here

}
```

5. Create a calculator that can perform the following features. (Total Score 4)
   i. The calculator should be able to perform Addition, subtraction, multiplication, division. (Score 2)
   ii. Should be able to perform squareRoot, square, cube. (Score 1)
   iii. Should be able to convert 'Fahrenheit-Celsius' , 'Feet-Inches'. (Score 1)
   Extra Credit(Score 2)

The calculator should be able to solve a quadratic equation and return the solution as array.

i. This function should take three arguments.

ii. For example, if quadratic equation is $Ax^2 + Bx + C$. The function should take A,B,C as arguments and return a solution as array.