

## COMP1020 Winter 2024

### In-Class Participation Week 2 Thursday

Q1) You are provided with the person class

```
class Person {  
    public String name;  
    public int height;  
}
```

what is the output of the following Q2 class?

[1]

```
class Q1 {  
    public static void main(String args[]) {  
        Person p = new Person();  
        p.name = "class";  
        method2(p);  
        System.out.println(p.name);  
        method1(p);  
        System.out.println(p.name);  
    }  
  
    static void method1(Person p) {  
        p.name = "method1";  
        System.out.println(p.name);  
    }  
    static void method2(Person p) {  
        p = new Person();  
        p.name = "method2";  
        System.out.println(p.name);  
    }  
}
```

Q2) What is the output

[1]

```
class Q2
{
    private int m1=0, m2=0, m3=0 ;
    private float percentage=0.0f ;
    public void calculatePercentage ( int x, int y, int z )
    {
        m1 = x ; m2 = y ; m3 = z ;
        percentage = ( m1 + m2 + m3 ) / 3.0f ;
    }
    public void displayPercentage( )
    {
        System.out.println ( "Percentage = " + percentage ) ;
    }
}

public class SampleProject
{
    public static void main ( String[ ] args )
    {
        StudentRecord s1 ;
        s1 = new StudentRecord( ) ;
        s1.displayPercentage( ) ;
        s1.calculatePercentage ( 30, 30, 30) ;
        s1.displayPercentage( ) ;}}}
```

Q3) The **LibraryBook.java** file should contain:

[3 M]

1. Instance variables:

- **Book ID:** Represented as an integer.
- **Book Title:** Represented as a string.
- **Author:** Represented as a string.
- **Availability status:** Represented as a boolean.

2. Provide **getter** and **setter** methods for all instance variables.

3. Definition for **Instance methods**:

- **checkOut():** This method marks the book as unavailable. If the book is currently available, it displays a message indicating that the book has been checked out. It also changes the availability status of the book.
- **returnBook():** This method checks for the availability of the book. If the book is returned, it changes the availability status of the book and displays the status of the book.

4. Override the **toString()** method to display book details including ID, title, author, and availability.

The **LibraryTest.java** file should contain:

- The class should have the **main()**.
- Create one object for the **LibraryBook** class using the default constructor and set values using the setters.
- With the help of the object, call the methods - **checkOut()**, **returnBook()**, and display book details using **toString()**.