Alexandria University
Faculty of Engineering
Computer and Systems Engineering
Department



EEC-3E1: Data Structures

# Assignment 1 Introduction to Java & Git

### 1 Objectives

- 1. Getting Started with JAVA Programming Language.
- 2. Becoming familiar with Java IDE (e.g., eclipse)
- 3. Using git for code versioning control

## 2 Environment Setup

Please follow the instructions in the tutorials.

- 1. First of all, you have to install Java Development Kit (JDK). You can read more about JDK from <a href="here">here</a>. You can download JDK 8 from <a href="here">here</a>. Follow the setup instructions accordingly.
- 2. You are free to use any IDE of your choice as Eclipse or Netbeans. However, It's recommended to use eclipse for JAVA. You can download it from <a href="here">here</a>.

### 3 Simple Calculator

It is required to implement a simple calculator that supports two operations: addition and division.

#### 4 Notes

- You may need to add the path of your JDK to Windows PATH variables. For troubleshooting follow instructions <a href="here">here</a>.
- You should work individually.
- No late submission is accepted.

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# **5 Integration**

Your calculator class should implement the following **ICalculator** interface.

```
public interface ICalculator {
   /**

* Adds given two numbers

* @param x first number

* @param y second number

* @return the sum of the two numbers

*/
int add(int x, int y);
   /**

* Divides two numbers

* @param x first number

* @param y second number

* @param y second number

* @return the division result

*/
float divide(int x, int y) throws RuntimeException;
}
```

#### **6 References**

- 1. Installing Java and Eclipse.
- 2. <u>JAVA Programming Tutorial.</u>
- 3. JAVA Classes and Objects.