INSTITUTE OF INFORMATION TECHNOLOGY
UNIVERSITY OF DHAKA

LABORATORY MANUAL

FOR

SE 206: OBJECT ORIENTED CONCEPTS I

Lab 1

Contents:

Writing your first program in Java, JDK installation, Compiling and Executing the Java program from the terminal/ command prompt, Installation of the Eclipse Integrated Development Environment (IDE), Running the Java program in Eclipse.

Program:

```
/*
This program displays four arithmetic operations
between two numbers- addition, subtraction, multiplication and division
*/
class Main {
    public static void main(String[] args) {
        // this declares a variable called firstNum and assigns 20
        int firstNum = 20;
        // this declares a variable called secondNum and assigns 5
        int secondNum = 5;
        // this prints the summation of two variables
        System.out.println("This is the sum of the two numbers: " + (firstNum +
secondNum));
        // this prints the subtraction of two variables
        System.out.println("This is the subtraction from the first to the second
number: " + (firstNum - secondNum));
        // this prints the multiplication of two variables
        System.out.println("This is the multiplication of the two numbers: " +
(firstNum * secondNum));
        // this prints the division of two variables
        System.out.println("This is the division of the first number by the second
number: " + (firstNum / secondNum));
    }
}
```

Exercises:

1. Write a program in Java to calculate the quotient and remainder after division. Your program will assign two numbers to two variables. Then, the calculated quotient and remainder are assigned to two separate variables. These variables are printed in the console as follows:

   `The quotient and remainder after the division are .....`

2. Create another Java project named *anotherproject*. Now, include the Java project you created in *Exercise 1* in the build path of this project and execute it from a*notherproject's Main* method.

   Hint: In Java, Main methods can be called using `Main.methodname(args)`.

References:

1. Java: The Complete Reference, Herbert Schildt, McGraw Hill
2. JDK Download Link - https://www.oracle.com/java/technologies/downloads/
3. Eclipse Download Link - https://www.eclipse.org/downloads/