Department of Statistics & Computer Science
University of Kelaniya
Academic Year – 2022/2023
COSC 12043 / BECS 12243 - Object Oriented Programming
Tutorial 02

- Create a Word document with your student number, tutorial number, and course code in the header and page numbers in the footer.
- Save it with your student number as the file name.
- Add your code and screenshots of the outputs, then upload it to the Submission Box on the ekel page.

Install Java SE Development Kit 17 (JDK 17) - (LTS) if you have not done. Verify installation by typing "java --version" in your command prompt. (Hint: If any error occurs while running Java programs, set the Java path in your system.)

1) Write a Java program to print the following message on the screen:

```
Hello! My name is [Your Name] and I am excited to learn Java.
```

You should follow below steps:

a. Type your Source code in a Notepad & save it with the name of the main class. (ex:- Example.java)
b. Compile the source code. (ex:- javac Example.java) Check the generated Java byte code file. What is the name and extension of the output file?
c. Run the program using JVM. (ex:- java Example)

2) Consider the above Java source code:

a. Delete the first open curly brace of the class and compile the program. What is the compilation error message?
b. Delete the symbol ";" of the print line and compile. What is the compilation error?
c. Delete the last curly brace (last symbol of the program) from the class. What is the error message?

3) Write a Java program to take a number as a command line argument and display it. (Use Notepad to write the source code).

4) Write a Java program that performs basic arithmetic operations (addition, subtraction, multiplication, division, and modulus) on two numbers provided as command-line arguments.

   If the input numbers are 5 and 2, the program should output the following:

```
You entered: 5 and 2
Sum: 7
Difference: 3
Product: 10
Quotient: 2
Remainder: 1
```

5) Write another Java program to accomplish the following. (Use Notepad to write the source code):

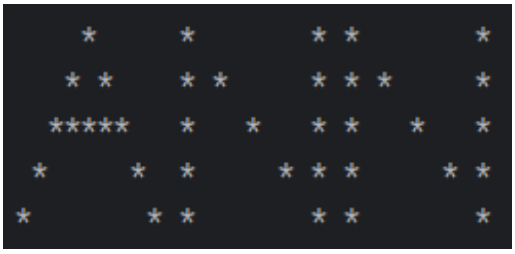
   a. Accept your full name as command line arguments.

   b. Print the below sentences to the command line interface.

```
This is my fifth Java Program.
My name is [Your Full Name].
```

6) Modify the Java program in question (5), to print the above sentences using a single System.out.print.

7) Write a Java program called MyName that prints out your name as in the following example:



8) Create a Java program that accepts the height and width of a rectangle as command-line arguments. The program should calculate the area of the rectangle and display it.

   If the height is 4 and the width is 5, the output should be:

```
The area of the rectangle with height 4 and width 5 is: 20
```

9) Create a Java program that accepts a single number as a command-line argument and calculates its square and cube.

   If the number is 3, the output should be:

```
You entered: 3
Square: 9
Cube: 27
```

10) Repeat and execute Java programs in question (1) to (9) using IntelliJ IDEA.