University of Dhaka
Dept. of Computer Science and Engineering
CSE-2112: Object Oriented Programming Lab (Spring, 2023)
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Lab 1: Getting Familiar with Java   **Date** : January 31, 2023

Agenda
1. Getting familiar with an IDE and command line.
2. Getting familiar with the very basics of Java.
3. Translating some (easy) problems from C to Java.

1. An IDE of your choice (Netbeans, Eclipse, IntelliJ, …)
- Creating a Java project, source file,
- Examining the bytecode
- Compiling and running a project, files, passing arguments to the main function etc.
- Examining the source code of a construct (self-study)
- Refractoring, debugging etc. (self-study)
- A short note on build tools (self-study)

2. Getting familiar with the very basics of Java
- Variables (and assignments)
  - Built-in
  - User-defined
- Branching statements
  - Conditional
  - Unconditional
- Iterations
- Methods (functions)
- Console input and output

3. Warm-up exercise with some naive problems
a. Write a program in Java that takes a non-negative number (an integer less than 10) as input (Using Scanner Object) and calculates its factorial. [Topic: loop + keyboard input]
b. Solve Problem 1 using a user defined static function. [Topic: function]
c. Write a program in Java that takes an integer array as input and finds the minimum and maximum number of the array. [Topic: 1-D array]
d. Write a program in Java that adds two 2x3 matrices and prints the result. You can use initialized matrices. [Topic: multi-D array]
e. Solve Problem 4 by writing a method that takes the three matrices as parameters. Print the result from the main function.
f. Write a Java program that takes a string as console input and prints the characters in reverse order. You are allowed to use any built-in string function. [Hint: use charAt() and length() functions]