Course: DSA

*Homework 04*

**Sorting**

Given the Sorting source code folder, students conduct the following tasks.

Students can use LinkedList<>, Stack<>, and Queue<> in Java API for this homework.

# Task 1:

Add the following method to the Sort class to sort an array of integers using Selection Sort

**public static void selectionSort(int[] a, boolean reversed)**

* Args:
  + a: an array of integers
  + reversed: **false** for ascending order, and **true** for descending one.
* Return:
  + none

| *Copy and paste source code of the method here* |
| --- |

# Task 2:

Add the following method to the Sort class to sort an array of integers using Bubble Sort

**public static void bubbleSort(int[] a, boolean reversed)**

* Args:
  + a: an array of integers
  + reversed: **false** for ascending order, and **true** for descending one.
* Return:
  + none

| *Copy and paste source code of the method here* |
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# Task 3:

Add the following method to the Sort class to sort an array of integers using Insertion Sort

**public static void insertionSort(int[] a, boolean reversed)**

* Args:
  + a: an array of integers
  + reversed: **false** for ascending order, and **true** for descending one.
* Return:
  + none

| *Copy and paste source code of the method here* |
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# Submission Notice:

* Export your answer file as pdf
* Rename the pdf following the format:

hw04\_<student number>\_<Full Name>.pdf

E.g: **hw04\_123456\_NguyenThanhAn.pdf**

*If you have not been assigned a student number yet, then use 123456 instead.*

* Careless mistakes in filename, format, question order, etc. are not accepted (0 pts).