## Example Classes
# General Information

The main purpose of example classes is to reinforce students' learning of algorithmic concepts and techniques by hands-on exercises. Moreover, the example classes can train the practical skills in implementation, empirical analysis, and presentation of algorithms. The performance of a student in the example classes will constitute **20%** of his/her final mark for the course.

Timeline
There are four example classes:

Example Class 1: Week 4 – 5
Example Class 2: Week 6 – 7
Example Class 3: Week 9 – 10
Example Class 4: Week 11 – 12

In case of time clash (such as with public holidays), the example class will be postponed (usually by two weeks). Students can refer to the lab schedule posted on NTULearn.

Group Projects
Students will be allocated into groups each of 5 – 7 members. To nurture cultural intelligence, we encourage grouping in such a way that each group will have students from at least two nationalities. *Students are to form groups by themselves and finalize the grouping within the first 20 minutes of Example Class 1*. After that, no swap across groups will be allowed unless absolutely necessary.

In Example Class 1, each group will perform theoretical complexity analysis for algorithms, and give a presentation in the class.

In Example Classes 2 – 4, students will implement algorithms using a language of their own choice (e.g., Java, C, C++, or Python), and test programs on input data. Depending on specific requirements of classes, the dataset may be generated by students themselves or downloaded from the web. In the presentation, a group should give a demo of the program running on the input data.

By the end of each class (except for Example Class 1), a group should submit to tutor:
(1) Softcopy of source code, compiled executables and test data;
(2) Softcopy of report summarizing the implementation and experimental results.

Note: On each computer in the laboratory, compilers and IDEs (e.g. Java JDK 7, NetBeans 7.3.1) have been installed. You may also use your own laptop. Please test your program in the lab before giving a demo.

Presentation and Program Demo

In each session, every group should choose 2 - 3 students to take part in the presentation, which includes a computer demo of algorithm implementation. The 2 - 3 students representing their group should divide the presentation material equally. Every student should take part in the preparation of the presentation material. Throughout the 4 example classes, every student should take part in at least **two** presentations. Tutors will record the names of students who do the presentation for each session.

Each group should finish coding and prepare a presentation before the class. However, the first 30 minutes of each example class will be given to students to finalize presentation materials or to test their programs on the computers. After that, each group has **10 minutes** for giving a presentation.

Facilities for PowerPoint presentation are provided by the laboratory.

***Plagiarism is strictly prohibited. If the program or report of a group is found to have a similarity of more than 50% with another group or web materials, all members of the group will receive zero mark for the example class. Further academic disciplinary actions may be taken.***

For guidelines of grading and policy of absence or late submission, please refer to the “Scoring Scheme” for example classes.