

Data structures and Algorithms

Assignment #1

1. Introduction

The objective of Assignment#1 is to implement the following Data structures: Singly-Linked List, Doubly-Linked List, Stack and Queue using provided templates.

- Provided templates:
 - list/SLinkedList.h
 - list/DLinkedList.h
 - stacknqueue/Stack
 - stacknqueue/Queue
- Requirements:
 - You are required to complete the four classes defined in the files specified above.
 - Where to fill the code?
 - At **“YOUR CODE HERE”**

2. Guidelines

- (1) Attend the lecture (online). Instructors will explain how to implement those classes.
- (2) Use short functions in the files with “Demo” in their names located in “dsacpp/include/list” and “dsacpp/include/stacknqueue” to practice some functions defined in those classes.
- (3) Run the tests created for those classes, located in dsacpp/include/test to enforce that your implementation working correctly.
 - Add the tests to file “dsa_main_test.cpp” + compile + run

3. How to submit

- Submit ONLY one zip file containing the four files specified above, placing those in folder “list” and “stacknqueue” accordingly, i.e., the same format as the zip file provided by the instructor.
- Deadline: **June 24, 2021; 17h00**

References:

- **List-with-Java.pdf** explains how to implement lists with **Java instead of C++**, however, it contains some helpful pictures and steps. Read it to know how to organize internal data for lists.