

## CS 2413 Data Structures – Spring 2016 – Programming Project 2

### Due February 22, 2016 – 11:59 PM

#### Objectives

- [10 pts] Exception Handling: Throw and catch exceptions for the following:
  - When a user inputs a wrong tab number.
  - When a user inputs a wrong action: After you read the wrong action makes sure you read the rest of the input and ignore them.
- [10 pts] All arrays should be dynamic and sizes of them should not be fixed.
- [30 pts] Each class you write must have the following methods in addition to others required to process it the input file:
  - Default Constructor
  - Initializer Constructor
  - Copy Constructor
  - Destructor
  - Overloaded '=' operator
  - Overloaded ostream operator
- [30 pts] Design and implement the program *according to the project description*. 30 pts are distributed as follows:
  - [10 pts] Implement the move browser tab method in browserTab class.
  - [10 pts] Implement the remove method in browserTab class.
  - [10 pts] Change the URL on the existing tab
- [20 pts] Document your project thoroughly as the examples in the textbook. This includes but not limited to header comments for all classes/methods, explanatory comments for each section of code, meaningful variable and method names, and consistent indentation.

#### Project Description

**This project is an extension of the previous project (Project One).** Make sure that you implement all the new methods as described above. The new actions are M (for Move Before), R (for Remove), and C (for Change). The input for each will be as follows (given as examples):

10 M 8 //This line means that tab 10 is moved before tab 8.

6 R //Remove tab 6

5 C <http://www.cnn.com/> //Change the url for tab 5 to http://www.cnn.com/.

#### Constraints

- In this project, the only header you will use is `#include <iostream>`.
- None of the projects is a group project. Consulting with other members of this class on programming projects is strictly not allowed and plagiarism charges will be imposed on students who do not follow this.