

Assignment 6 Part 1 – Undirected Graph Representation and Traversal Algorithms

Spring 2025

Due: Thursday, Apr 17 11:59 pm

To-do

Download the base code **graph** containing both adjacency list and adjacency matrix representation of Graphs using linked lists that we covered in class from D2L. Using this base code complete the following tasks.

Task 1: Implement **removeEdge()** function.

Task 2: Implement **bfsM()** function.

Task 3: Implement **dfsL()** function.

Task 4: Implement **dfsM()** function.

*** Extra-credit opportunity [+10 points] ***

Implement one of the following functions from the given choices below:

- **detectCycle()** OR **connectedComponents()**

Total Points (50)

- Code runs and works as expected – Task 1: 15 points
- Code runs and works as expected – Task 2: 10 points
- Code runs and works as expected – Task 3: 10 points
- Code runs and works as expected – Task 4: 10 points
- Proper commenting: 2 points
- Available on GitHub: 3 points

Deliverables:

- A zipped folder named A6_P1 that contains all the files submitted to D2L dropbox
 - o C++ files and header files

- README.txt file
 - A screenshot showing the functions work.
- Published to GitHub under the folder where you added me as a collaborator.