COSC 2436 lab 5: Valid Path in a Graph

1. Introduction

Given a list of edges in a graph, determine if the graph has a valid path from a given source vertex to a destination vertex. Using either BFS or DFS algorithm implemented in the previous labs, you can check if the destination vertex had been visited or not after traverse the graph from the source vertex.
You can use any STL implementation for this lab.

2. Input and Output

a. Input file
   - The first line will contain an integer indicate the number of vertices.
   - The second line will contain two integers indicate the source node and the destination node.
   - Each of the following lines will contains two integer a and b, indicate the edge between a and b.
   - Each edge is bi-directional

b. Output file
   - Output "`true`" if there is a valid path from source to destination, and "`false`" otherwise.

3. Example Output

input1.txt

```
8
5 2
0 1
1 3
1 5
2 7
3 4
4 5
4 6
```

output1.txt

```
false
```

4. Turn in your lab assignment

Lab 5 needs to be turned in to our Linux server, follow the link here
https://rizk.netlify.app/courses/cosc2430/2_resources/
Make sure to create a folder under your root directory, name it lab5 (name need to be lower case), copy your code and ArgumentManager.h to this folder, no testcase or other files needed.
PS: This document may have typos, if you think something illogical, please email TAs for confirmation.