

CMSC 350

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## Project 4



Test Number	Input	Expected Output	Actual Output	Reason for Test
1	Input file Name:graph.txt Button:Build Directed Graph Class to recompile:ClassB Button: Topological Order	ClassB, ClassG, ClassD	ClassB, ClassG, ClassD	graph without cycles
2	Input file Name:graph.txt Button:Build Directed Graph Class to recompile:ClassB Button: Topological Order Method call to newGraph.addEdge("ClassA", "ClassA");	Exception Thrown: Cycle Found	Exception Thrown: Cycle Found	graph with cycles
3	Input file Name:graphs.txt Button:Build Directed Graph	Exception Thrown: File did not Open	Exception Thrown: File did not Open	invalid file name check
4	Input file Name:graph.txt Button:Build Directed Graph Class to recompile:ClassZ Button: Topological Order	Exception Thrown: Class not found	Exception Thrown: Class not found	invalid class name check

## Lessions Learned

- Implementation of a directed graph using an adjacency list
- Implementation of adjacency list using a LinkedList of associated class names and index references stored in a HashMap.
- Implementation of a depth-first-search
- Cycle detection within a directed Graph.