

Gebze Technical University
Department of Computer Engineering CSE
222/505 - Spring 2020
Homework 8 Report

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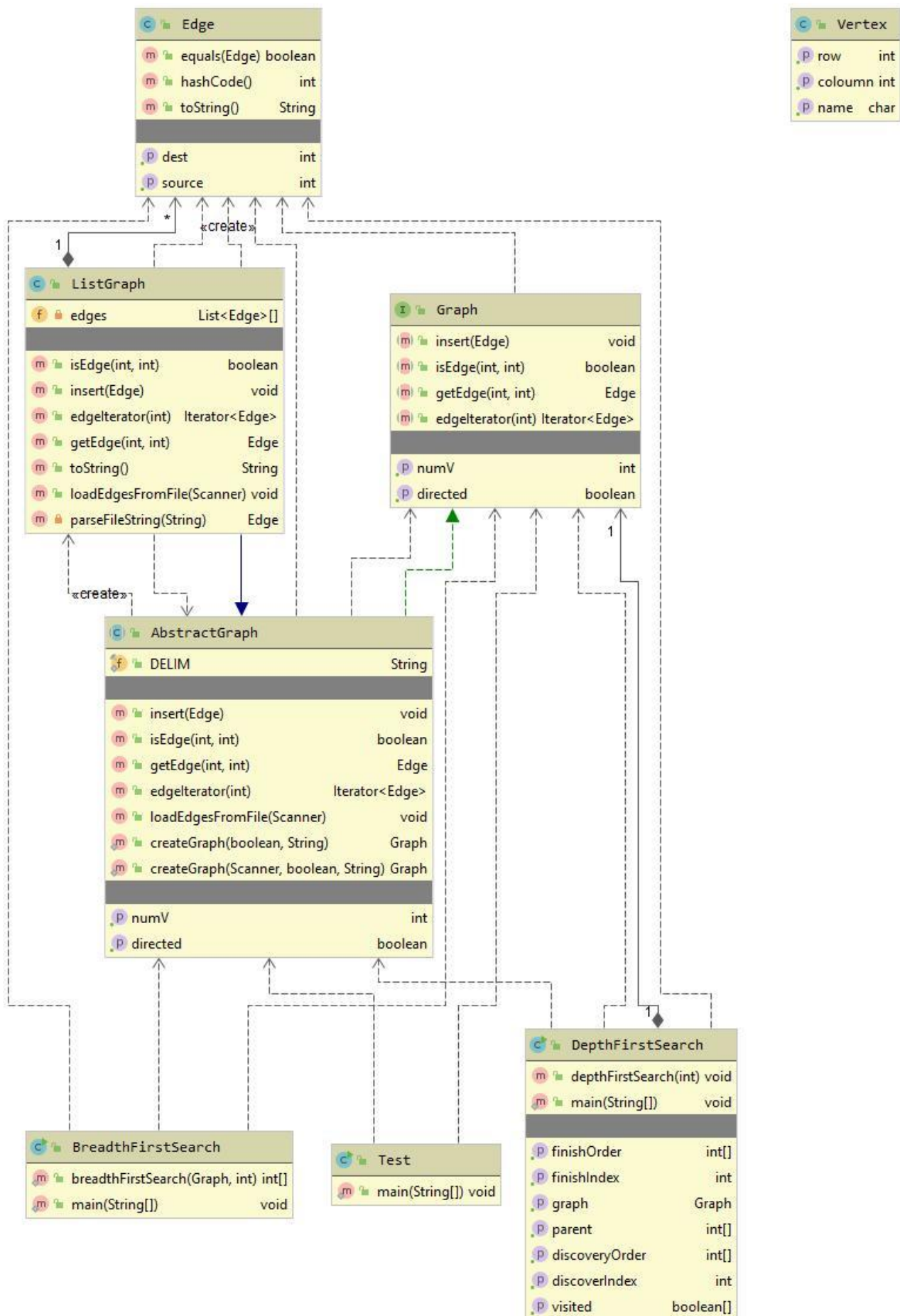
1 – Q3

1. SYSTEM REQUIREMENTS

- Deletion of an individual edge.
- Insertion and deletion of an individual vertex..
- Perform breadth-first search of the graph
- Perform depth-first search of the graph.

Implemented the extended graph ADT using 2-D linked-list structure. In 2-D linked-list structure, each node has two row links (rprev to row-predecessor and rnext to row-successor) and two column links (cprev to column-predecessor and cnext to column-successor). In our graph representation, each row linked-list represents adjacent vertices to a vertex and each column linked-list represents vertices adjacent to a vertex.

2. Class Diagram



3. RUNNING AND RESULTS

	0	1	2	3	4	5	6
0		0.1		0.3	0.4	0.5	
1	1.0		1.2	1.3	1.4		1.6
2		2.1		2.3		2.5	2.6
3	3.0	3.1	3.2		3.4	3.5	3.6
4	4.0	4.1		4.3		4.5	
5	5.0		5.2	5.3	5.4		5.6
6		6.1	6.2	6.3		6.5	