**GTU Department of Computer Engineering**

**CSE 222/505 - Spring 2023**

**Homework #8 Report**

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1. **Running Time and Time complexity Analysis of Algorithms**

Dijkstra’s Algorithm BFS Algorithm  
 O( (V+E) + logV) O(V+E)

The time complexity of BFS is O(V+E), where V is the number of vertices and E is the number of edges in the graph.

The time complexity of Dijkstra’s Algorithm is O( (V+E) + logV), where V is the number of vertices and  E is the number of edges in the graph.

Running Time (for all maps): BFS: 15.21 seconds