**Description:** this assignment was implemented in the Computer Communications and Networks course (ITCS6166/8166 - Fall 2016). The purpose of the assignment is to implement Dijkstra algorithm and the shortest edge-disjoint paths in a graph. The full description of the assignment can be found in “Assignment description.pdf”. Also, there are powerpoint slide describing the algorithms.

**Language used:** Java

**Repository Structure:**

* **Assignment description:** please check “Assignment description.pdf”
* **Part 1:** includes the implementations of the standard Dijkstra's algorithm for finding shortest paths from a given source node to a given destination node in graphs.
* **Part 2:** includes the implementation to find the shortest pair of edge-disjoint paths in a graph, from a given source node to a given destination node
* **Slides:** powerpoint slides explaining the algorithms.
* **Test Files:** text files including hypothetical graphs for testing

**How to run:**

1- Locate the test graph file in the project directory and name it "graph.txt". Please refer to the “Assignment description.pdf” for the file format

2- Execute the application

3- Enter the source node

4- Enter the destination node.