

PROBLEM STATEMENT:

Create a graph ADT. The Graph ADT will consist of a set of vertices's and a set of weighted edges. An enhanced user-friendly version of this program could be used for a variety of applications that include: managing travel routes for sales people with vertices's representing customer locations and edges representing the travel routes between locations with their associated costs. managing computer network configurations with vertices's representing computer sites and edges representing communication inks between computer sites with associated costs.

CODE:

The Graph ADT must use an Adjacency List representation for the graph. The included struct and class definitions assume that an array or STL vector is being used for the Graph vertex list, with a linked edge list hanging off each array cell (for each vertex). The graph must be templated and include data attributes and member functions from the enclosed file (graph_specs.txt). These members functions must be implemented to the specs
Supply a client program that demonstrates that your Graph ADT class works correctly for both an undirected graph and a directed graph. It should be menu driven.

You must implement Dijkstra algorithm as given in the lessons of 2,3 February 2021. See cs232_dijkstraCode.pdf. Failure to do so is an automatic 25 point deduction.

DELIVERABLES:

soft: in a zipped file, called CS23_P1_yourLastName,
submitted to blackboard CS232_P1_ANS

1. documented source code
2. user manual.
3. Programmer manual(s) (one for each class also)
4. **release** version executable

As usual, any other file(s) submitted will receive a 5 point deduction for each file.

Due Date : 6:00am 8 March 2021