CS 232 - P2

User Manual

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This program allows the user to load a weighted graph file and perform graph manipulations as well as display various output and traversals.

Contents:

Choose one of the following options:

L: Load a new file

V: Lookup Vertex

A: Add a Vertex

D: Delete Vertex

U: Lookup uni-directional edge

Q: Add a uni-edge

W: Deletes a uni-edge

B: Lookup bi-directional edge

K: Add a bi-edge

G: Deletes a Bi-edge

J: Shortest Distance

F: Breadth First Traversal

N: Depth First Traversal

M: Display the menu options

P: Print

X: Exit the program

L – Load a new file:

Choose this option to enter the file path of an appropriate weighted graph .txt file

V – Look up Vertex

Enter a vertex to determine whether or not it exists in the graph

A – Add a Vertex

Adds a vertex to the graph

D – Delete vertex

Removes a vertex from the graph

U – Look up uni directional edge

Enter two verticies. The program then determines if a uni directional edge exists between the two verticies entered.

Q – Add a uni edge

Adds a uni directional edge to the graph. The user has to input the starting vertex, the ending vertex, and the weight of the edge between the two verticies. If one or both verticies don’t exist, they’ll be created and added to the graph.

W – Delete a uni edge

Removes a uni directional edge from the graph.

B – Lookup Bi directional edge

Enter two verticies. The program then determines if a bi directional edge exists between the two verticies entered.

K – Add a bi edge

Adds a bi directional edge to the graph. The user has to input two verticies and the weights from the first to the second vertex and from the second to the first. If one or both verticies don’t exist, they’ll be created and added to the graph.

G – Delete a bi edge

Removes a bi directional edge from the graph.

J – Shortest Distance

Determines the shortest distance between two points on the graph.

F – Breadth First traversal

Performs a breadth first traversal of the graph and prints the output

N – Depth First traversal

Performs a depth first traversal of the graph and prints the output

M – Display Menu

displays the main menu

P – Print

Prints the contents of the graph

X – Exit the program

Exits the program