QUESTION:

Make a **GUI using JavaFX** to make the following functionalities:

(i)   Add vertex specifying name of vertex, x coordinate value and y coordinate value using text fields.

(ii)   Search for a named vertex and show details.

(iii)   Delete a named vertex.

(iv)   Modify the details of a named vertex.

(v)   Add edge specifying from and to vertices names and weight using text fields.

(vi)   Search for an edge specifying the named vertices.

(vii)   Delete an edge.

(viii)   Modify the details of an edge.

(ix)   Load data from a text file (format: number of vertices, vertex details, number of edges, edge details, all space separated in a single line.

(x)   Export graph in the same format in a text file (vertices sorted by name, edges sorted from the from vertex and then to vertex).

(xi)   Take source and goal vertex name as input and print the path in a text field.

<u>**NOTE**</u>: Use Dialogue Boxes for illegal inputs. Use **Exception Handling**.