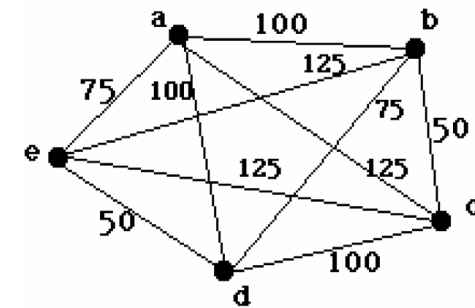


Project 2: Travelling Salesperson Problem – **Search (Ch. 3)**

- Learning objectives.
 - Search Techniques for graphs
 - BFS and DFS algorithms





Problem

- For this lab we are looking at a special case of TSP in which not all cities are connected and the salesperson only needs to find the best path to a target city not visit all cities.
 - For the given dataset (11PointDFSBFS.tsp), starting at the first city (city 1) find the shortest path to the goal city (city 11).
 - Implement Breadth First Search (BFS) and Depth First Search (DFS) algorithms
 - Visit cities in numerical order if you need to break a tie. You can hardcode connected edges into your algorithm for this problem

Data for Project 2

pt	1	2	3	4	5	6	7	8	9	10	11
1		x	x	x							
2			x								
3				x	x						
4					x	x	x				
5							x	x			
6								x			
7									x	x	
8									x	x	x
9											x
10											x

Deliverables

- Project report (3-4 pages) describing results of your experiments and your implementation. Which algorithm was faster in finding an acceptable solution? How long did it take?
- Well-commented source code for your project. You can use any language you like, but I reserve the right to ask you to demo performance of your algorithm on a new dataset.
- You don't have to include a GUI with visual representation of the solutions for this project, but it might be useful for your future TSP related projects in this course.