Laboratory practice 5: Graphs

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1) Project questions Simulation

2) Midterm Simulation

2.a. Exercise 1

	0	1	2	3	4	5	6	7
0				1	1			
1	1		1			1		
2					1		1	
3								1
4			1					
5								
6			1					
7								

2.b. Exercise 2

- 0 -> [3,4]
- 1 -> [0,2,5]
- 2 -> [4,6]
- 3 -> [7]
- 4 -> [2]
- 5 -> [ ]
- 6 -> [2]
- 7 -> [ ]

2.c. Exercise 3

2.3.1 How much memory (not time but memory) occupies a representation using adjacency lists for the worst graph directed with n vertices?

b) O(n^2)

3) Recommended reading

3.a. Summary

The graphs are a data structure very used in the organization of information and is also very used in computer science to analyze routes and connections. To be implemented, certain nodes (vertices) are used, which are connected to others due to edges which represent the interaction with other elements. There are two types of graphs, the directed graph and the non-directed graph, the first type is the graph whose edges have a defined direction, it shows a specific path of access form one graph to another, and on the other hand, the non -directed graphs are those whose nodes are connected but they do not have a defined path (order)

3.b. Chart