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LAB 5 : Paper assignment

Assignment 1 :

Edge list (array based) :

A	A	B	C	C	C	D	E	E	F
B	C	F	B	D	E	-	D	F	-

Adjacency lists :
(A → B,C), (B → F), (C → B, E, D), (D → _), (E → D, F), (F → _)

Adjacency Matrix :

0	1	1	0	0	0
0	0	0	0	0	1
0	1	0	1	1	0
0	0	0	0	0	0
0	0	0	1	0	1
0	0	0	0	0	0

Assignment 2 :

If I had to manage a graph G=(V, E) for which I would know these two points, I would choose for my implementation an Adjacency Matrix, as the number of nodes is not varying over time. Thus the insertion or deletion of nodes are quite frequent. For the deletion, we could simply change the 1 to 0, which would mean there is no connection and for the insertion we could simply change the 0 to a 1.
Furthermore, the number of edges is always close to N*N so most of the cells will be non zero.

Assignment 3 :

      Starting from node (i) the node A :
      A - B - F - E - D - G - H - C
      Starting from node (ii) the node C :
      C - D - F - E - G - H
      A and B cannot be reached from the node c