CS580U - PST
Classwork (Graph)

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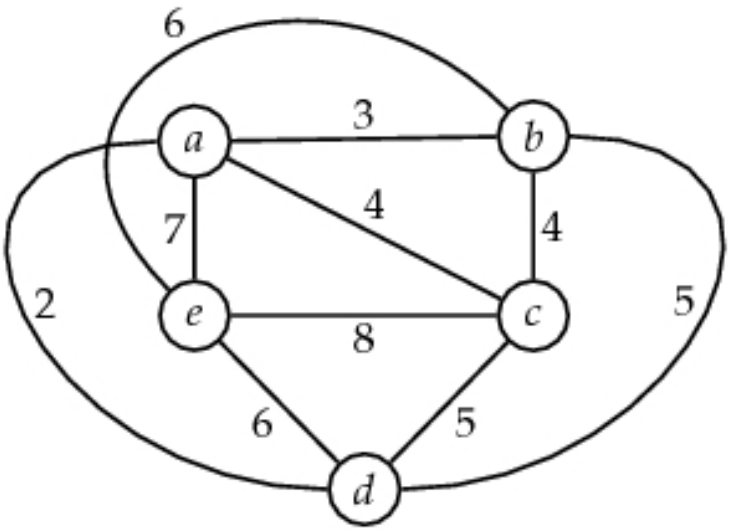
IMPLEMENTING GRAPHS



ADJACENCY MATRIX

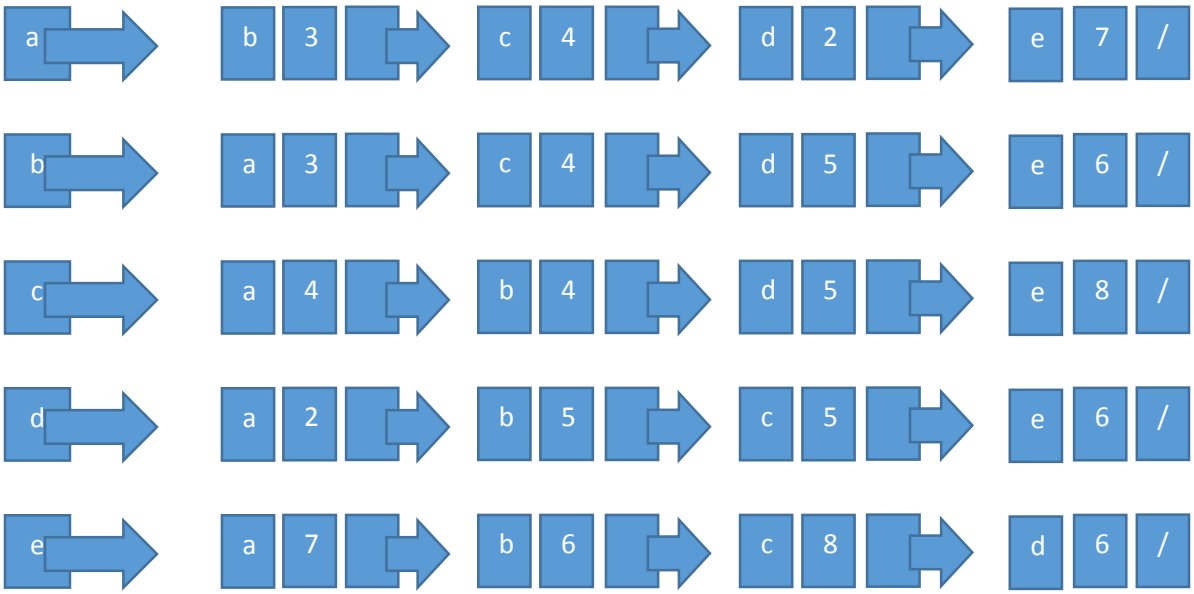
	a	**b**	**c**	**d**	**e**
a	0	3	4	2	7
b	3	0	4	5	6
c	4	4	0	5	8
d	2	5	5	0	6
e	7	6	8	6	0

COST REPRESENTATION

Total weight = V*V

= 5*5 = 25 * 2 bytes = 50 bytes

ADJACENCY LISTS



COST REPRESENTATION

Total weight = Vertices weight + Pointer weight + Edge weight

= 5*2 bytes + 20*4 bytes + 20*2 bytes

= 130 bytes

PREFERENCES

Since it is a dense graph we will go with adjacency matrix as it occupies less memory than adjacency lists.

If the graph is sparse then we will go with adjacency lists due to its space savings.