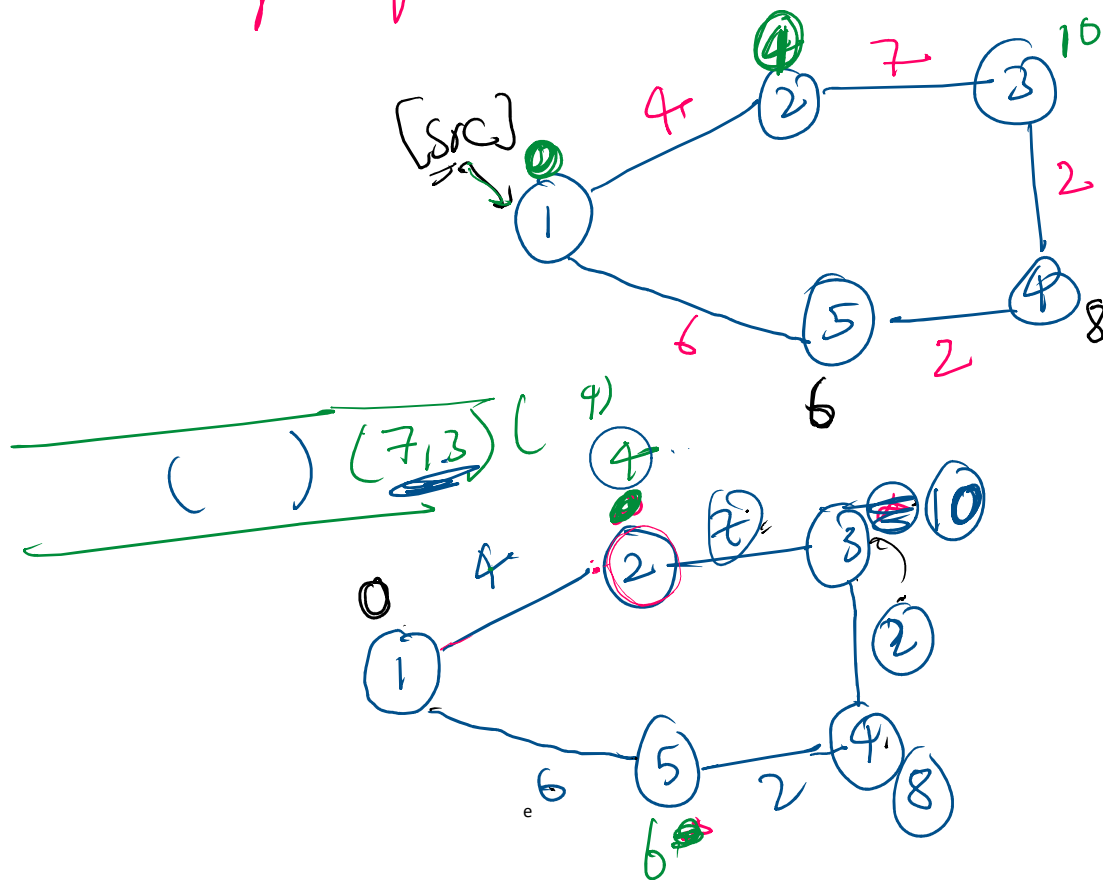


# Dijkstra's Algorithm

↳ Shortest path from source to all

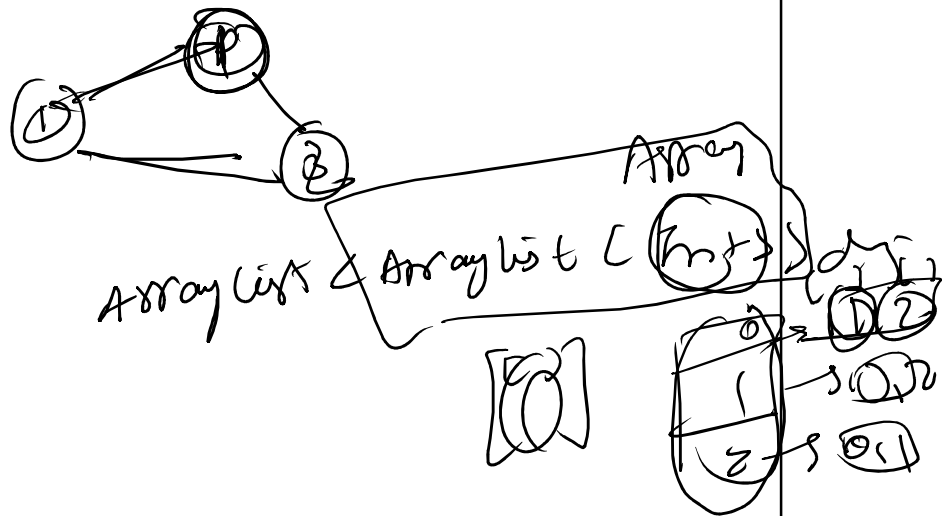
undirected weighted graph



→ Dijkstra algo picks the min weighted edge from the priority queue.

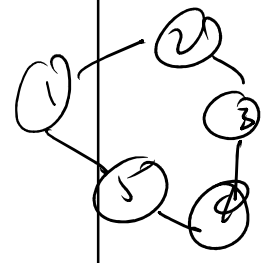
→ Dijkstra is a greedy algo.

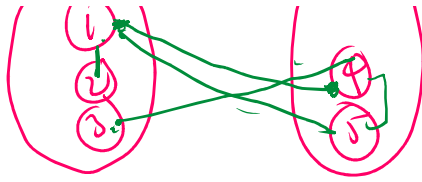
→ T.C =  $\boxed{\sum \log V}$



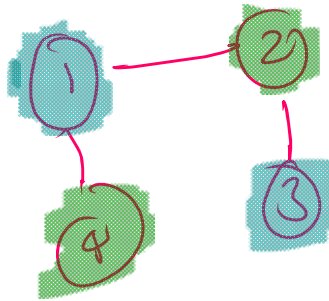
## # Bipartite graphs

→ Bipartite graph is a graph in which the vertices can be divided into two disjoint sets, where there is an edge b/w one vertex to a vertex in other set but not in the same set.

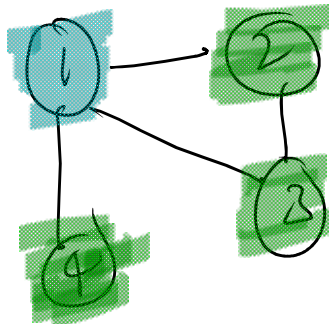
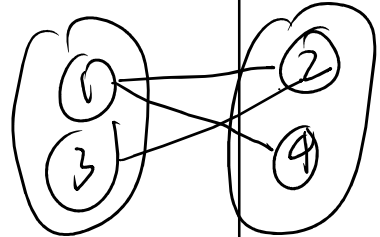




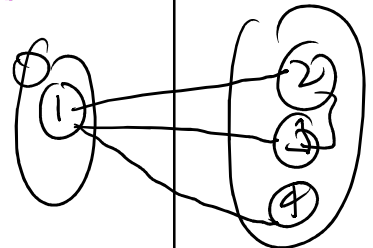
⇒ A bipartite graph is a graph which can be colored with only two colors and the adjacent vertices of a node don't have the same color.



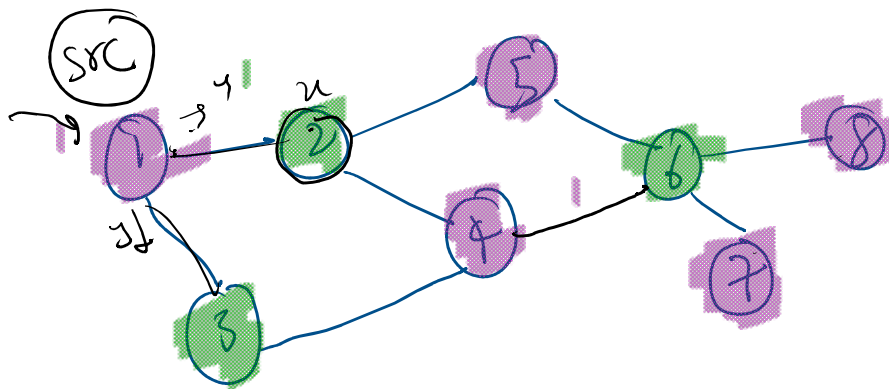
⇒



⇒



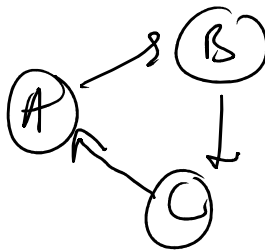
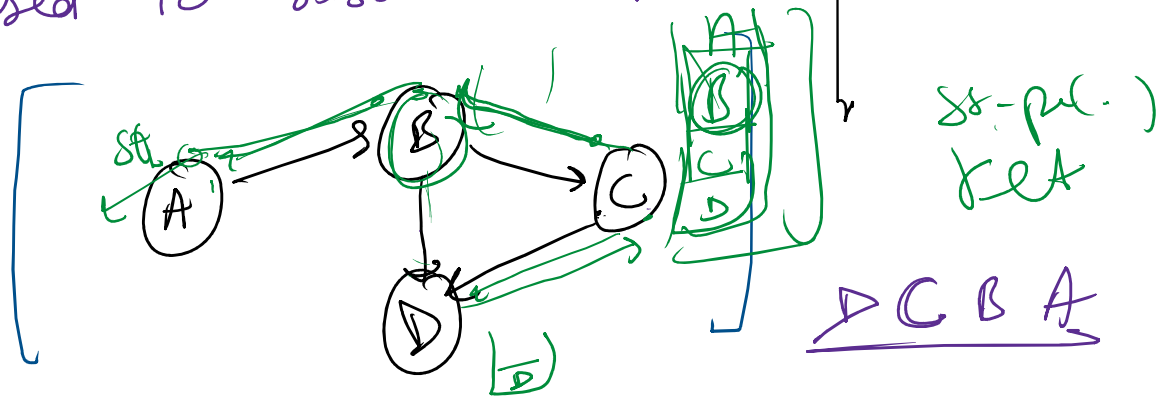
2)



# Topological sort

Directed Acyclic graph (DAG)  
↓  
cycle not present

→ It is used to resolve dependencies



→ A cyclic graph cannot be sorted topologically.