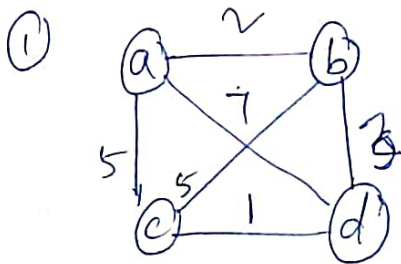


Applications of graph:

- Social Networking. [facebook]
- Google maps
- Computer science graphs are used to represent the flow of computation.
- Microsoft Excel
- Dijkstra's Alg.

Travelling salesman Problem:

→ cycle, start node & end node should be same



$$a \xrightarrow{2} b \xrightarrow{7} c \xrightarrow{1} d \xrightarrow{7} a = 17$$

$$a \xrightarrow{2} b \xrightarrow{3} d \xrightarrow{1} c \xrightarrow{5} a = 11 \quad \checkmark$$

$$a \xrightarrow{5} c \xrightarrow{4} d \xrightarrow{3} b \xrightarrow{2} a = 11 \quad \checkmark$$

} optimal solution

$$a \xrightarrow{5} c \xrightarrow{5} b \xrightarrow{3} d \xrightarrow{7} a = 20$$

$$a \xrightarrow{7} d \xrightarrow{1} c \xrightarrow{5} b \xrightarrow{2} a = 15$$

$$a \xrightarrow{7} d \xrightarrow{3} b \xrightarrow{5} c \xrightarrow{5} a = 20$$

Eg: 2

