

CSN-261 L6 REPORT

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PROBLEM STATEMENT 1:

Objective:

1) Implement meu driven programme for graph and implement various functions like:

- a) BFS
- b) DFS
- c) Insertion
- d) Cycle detection
- e) Diameter

Algo's:

- a) BFS->Breadth first search
- b) DFS->depth first search
- c) Insertion->insertion of edge in the adjacency list
- d) Cycle detection->Maths
- e) Diameter->DFS with logic

```
as1ngh@TELLOWART: ~/CSN261/L6/Q1
5. Calculate diameter of the graph
3
A D B E C F G
1. Inset edge
2. BFS traversal
3. DFS traversal
4. Cycle finding in the graph
5. Calculate diameter of the graph
4
YES
1. Inset edge
2. BFS traversal
3. DFS traversal
4. Cycle finding in the graph
5. Calculate diameter of the graph
5
4
1. Inset edge
2. BFS traversal
3. DFS traversal
4. Cycle finding in the graph
5. Calculate diameter of the graph
```

PROBLEM STATEMENT 2:

Objective:

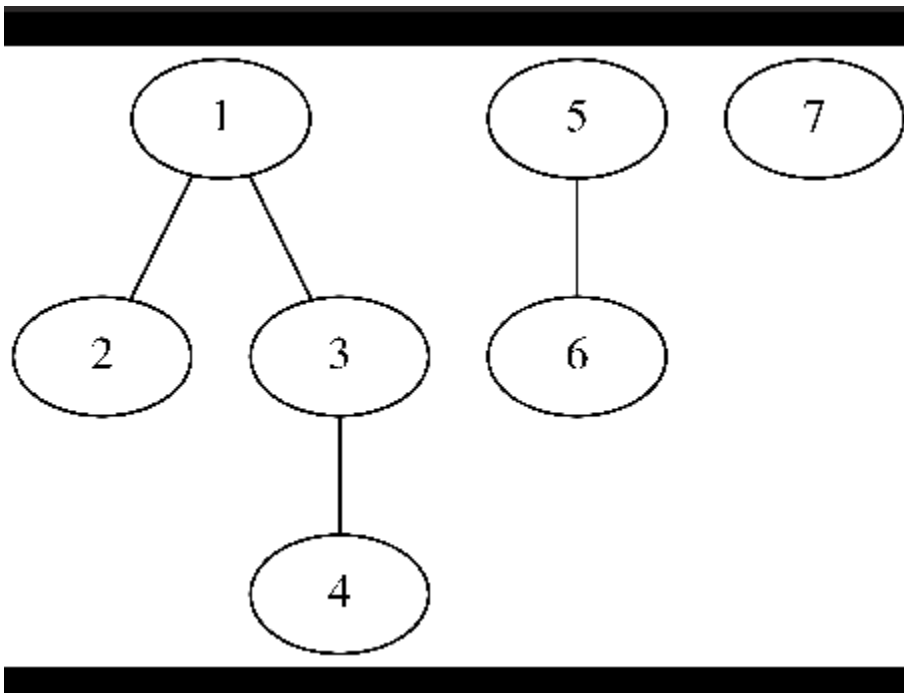
1) Implement Binomial heap without STL

Algo's Discuss:

Algo---> Binomial Heap

Contains forest of trees/heaps of size 2^k with height k ;

```
Q2.dot
~/CSN261/L6/Q2
graph MST {
    graph [ dpi = 1200 ] ;
    1--2
    1--3
    3--4
    5--6
    7
}
```



PROBLEM STATEMENT 3:

Objective:

1) Implement Bentley-Ottmann Algorithm for finding intersection of n line segment

Algo's discuss:

Bentley-Ottmann Algorithm

