Class recording (before mid): covering Graph representation, BFS, DFS, Shortest path, Edge classification. Class recording link

ALL CLASS RECORDING PLAYLIST FOR ONLINE SESSIONS OF THIS SEMESTER: ONLINE CLASSES HFN

Edge classification supplementary:
DFS - Types of Edges | Edge Classification | Tree Edge, Back Edge…

Traversal comparison: A Comparison of Pathfinding Algorithms [SKIP A* Algorithm for now]

Slide: Graph[BUX].pdf

How to check bipartite graph:
Bipartite Graph (BFS) | Graph Coloring

How to find Cycle in graph: (DFS method)
Detect cycle in a directed graph

Topological sort: (DFS) Topological Sort Algorithm | Graph Theory
(BFS/ Kahn's ALgo)
Topological Sort | Kahn's Algorithm | Graph Theory

Strongly Connected Components:
1
Kosaraju Algorithm | Strongly connected components in a graph
2 Tarjans strongly connected components algorithm

Single source shortest path algorithms:
1. Dijkstra's Shortest Path Algorithm | Graph Theory
2. Bellman Ford Algorithm | Shortest path & Negative cycles | G…
3. Shortest/Longest path on a Directed Acyclic Graph (DAG) | G…

EXTRA CLASS: Tuesday 5th Dec [7.30 to 9.30]
Assignments: 3 [S1, S2, S3] s1: BFS,DFS,S1
Quiz: S1, S2/S3

Syllabus:
1. Single source shortest path Algo: Dijkstra, Bellman-Ford [1]

2. **Greedy Algo: MST(Minimum Spanning Tree: Prims/Kruskal(DSU)) [2]**
3. **Huffman Encoding.**
4. **Dynamic Programming: Knapsack + LCS [2]**
5. **P vs NP [1]**