GRAPHS-

Terminology and Representations of Graphs

Graph Implementation using STL

Graph Implementation in C++ without using STL

Implement Graph Data Structure in C

Graph Implementation in Java using Collections

Breadth First Search (BFS) | Iterative & Recursive Implementation

Depth First Search (DFS) | Iterative & Recursive Implementation

Arrival and Departure Time of Vertices in DFS

Types of edges involved in DFS and relation between them

Bipartite Graph

Determine if a given graph is Bipartite Graph using DFS

Minimum number of throws required to win Snake and Ladder game

Topological Sorting in a DAG

Kahn's Topological Sort Algorithm

Transitive Closure of a Graph

Check if an undirected graph contains cycle or not

Total paths in given digraph from given source to destination having exactly m edges

Determine if an undirected graph is a Tree (Acyclic Connected Graph)

2-Edge Connectivity in the graph

2-Vertex Connectivity in the graph

Check if given digraph is a DAG (Directed Acyclic Graph) or not

Disjoint-Set Data Structure (Union-Find Algorithm)

Chess Knight Problem – Find Shortest path from source to destination

Check if given Graph is Strongly Connected or not

Check if given Graph is Strongly Connected or not using one DFS Traversal

Union-Find Algorithm for Cycle Detection in undirected graph

By-Anushka Gupta

Kruskal’s Algorithm for finding Minimum Spanning Tree

Single-Source Shortest Paths – Dijkstra’s Algorithm

Single-Source Shortest Paths – Bellman Ford Algorithm

All-Pairs Shortest Paths – Floyd Warshall Algorithm

Find Cost of Shortest Path in DAG using one pass of Bellman-Ford

Least Cost Path in Weighted Digraph using BFS

Find maximum cost path in graph from given source to destination

Determine negative-weight cycle in a graph

Print all k-colorable configurations of the graph (Vertex coloring of graph)

Print All Hamiltonian Path present in a graph

Greedy coloring of graph

By-Anushka Gupta