

Lab Assignment 9

Graphs and AVL

1. Write a program to represent a graph using adjacency matrix/list and perform basic operations like degree (in/out) of a vertex, adjacent vertices, number of edges, etc.
2. Write a program to implement breadth first search algorithm.
3. Write a program to implement depth first search algorithm.
4. Write a program to implement kruskal's minimum spanning tree algorithm.
5. Write a program to implement prim's minimum spanning tree algorithm.
6. Write a program to implement Dijkstra's shortest path algorithm.
7. AVL: <https://www.codechef.com/problems/UCS616A2>

Additional Questions:

- Write a program to implement Floyd–Warshall's shortest path algorithm.
- <https://www.hackerrank.com/challenges/kruskalmstrsub/problem>.
- <https://www.hackerrank.com/challenges/bfsshortreach/problem>.
- <https://www.codechef.com/problems/REVERSE>.