LAB ASSIGNMENT 5

DATA STRUCTURES AND ALGORITHMS—II (SEM – IV) DEPARTMENT OF COMPUTER ENGINEERING AND IT COLLEGE OF ENGINEERING PUNE

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Graph

Implement an undirected weighted Graph ADT using Adjacency Matrix. Initialize the Graph using a text file passed as a command line argument to main. Write function to perform the following operations:

Display the Graph
Display degree of each vertex

Verify if the graph connected.

Display number of components in the Graph and vertices in each component.

Check if one vertex is adjacent to another.

Display all cycles in the Graph