Module 9: Overview

Overview

In this module, we will study an important data structure--graphs. Many computational problems can be modeled using graphs. For example, a computer network can be modeled using a graph, a social network can be modeled using a graph, a transportation network can be modeled using a graph, a scheduling problem can be modeled using a graph.

We will study representation of graphs. We will study two basic graph traversal algorithms: Breadth First Search (BFS) and Depth First Search (DFS) and their applications.

Learning Objectives

By the end of this module, you will be able to:

1. Study the graph data structure and its representations
2. Study graph traversal algorithms (BFS and DFS)

Readings

Read the following:

- Section 20.1
- Section 20.2
- Section 20.3
- Section 20.4
- Section 20.5