ISBN: 978-93-5202-905-1

An Overview of "Application of Tree Concepts in Computer Science"

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Abstract

Many problems in the real world can be represented by graphs. There are many types of graphs and every type has an application in computer science. Tree is one of the major structure in graph theory. This paper gives an overview of application of tree concepts in computer science.

Keywords: *vertices, root, vertex, intermediate vertex, rooted tree.*

INTRODUCTION

Graph theory is a branch of a discrete mathematics and Graph is a mathematical structure used to model pairwise relation between objects. Graph Drawing is a key topic in implementation point of view because the automatic generation of drawing graph has important application in computer science such as database designing, software engineering, circuit and network designing, etc.

GRAPH

The two sets, set of vertices and set of edges, together defines a graph. Vertices acts as nodes and the relation between two nodes are denoted by an arc which is called as an edge. Graph provides a convenient way to represent various kinds of situations. Depending on the situation, edges may be directed or undirected. If edges do not have directions, then these are called undirected graphs, whereas graphs in which every edge has a specific direction is called directed graph. These are the two major classifications of graphs. Undirected graphs are used in many areas of computers like web designing, image processing, network framework and directed graphs are used in Network Flow, Data Structure, Operating System, Web Designing, etc.

TREE

A connected, acyclic graph is called as tree that is, a tree is a connected graph with no cycles. Trees are a special kind of graphs that represents hierarchy of things. These will help to maintain data