

# Data Structures

# Tree – Introduction

Team Emertxe





# Tree – Introduction



Data Structure –Tree

# Introduction



# Data Structure – Tree

## Introduction



# Data Structure –Tree

## Introduction

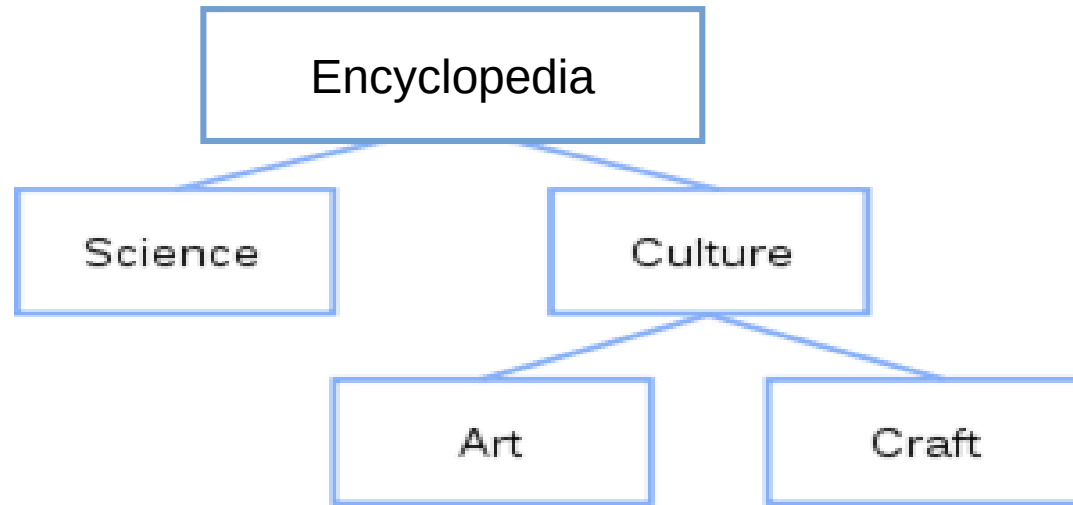
- Non Linear data Structure
- It is used to represent hierarchical tree structure



# Data Structure –Tree

## Introduction

- Non Linear data Structure
- It is used to represent hierarchical tree structure

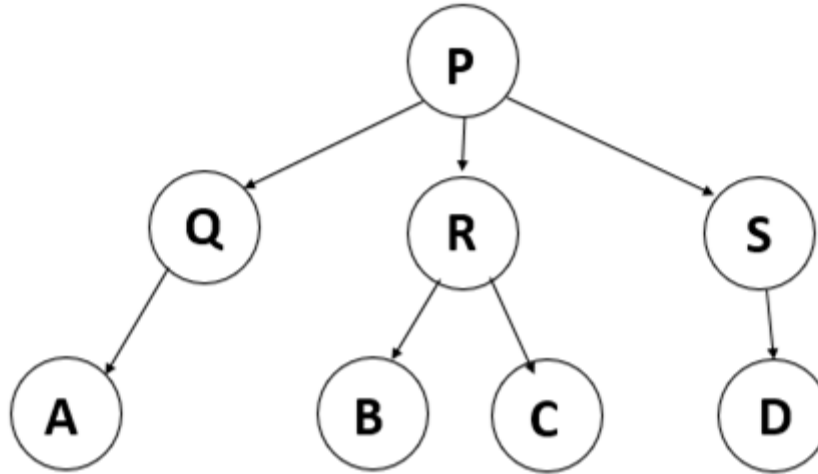


**Hierarchical organization of an encyclopedia**

# Data Structure – Tree

## Introduction

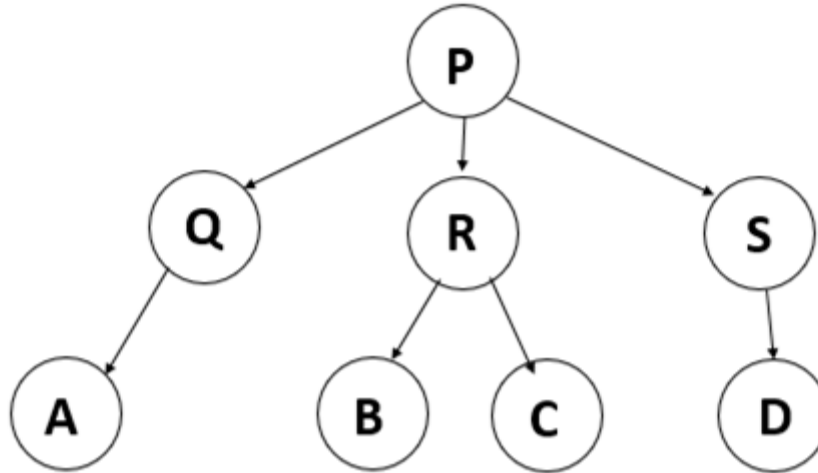
### Basic Terms



# Data Structure – Tree

## Introduction

### Basic Terms

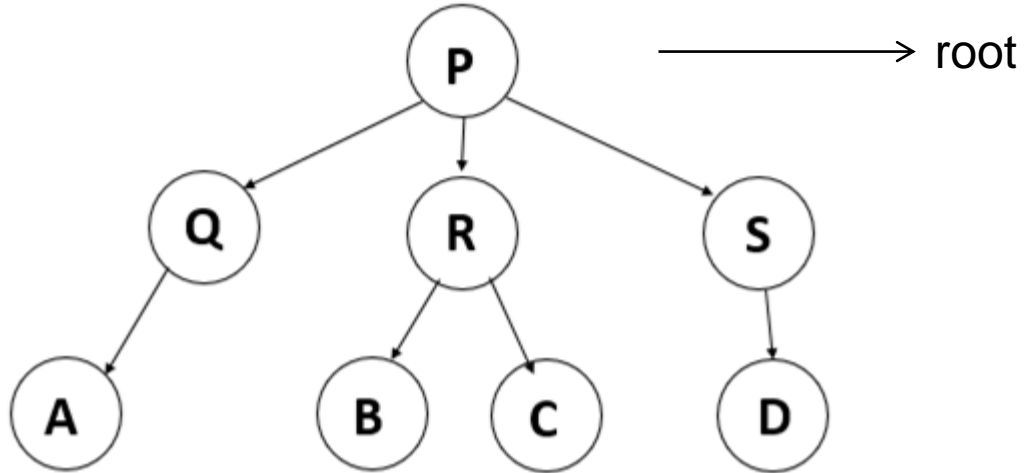




# Data Structure – Tree

## Introduction

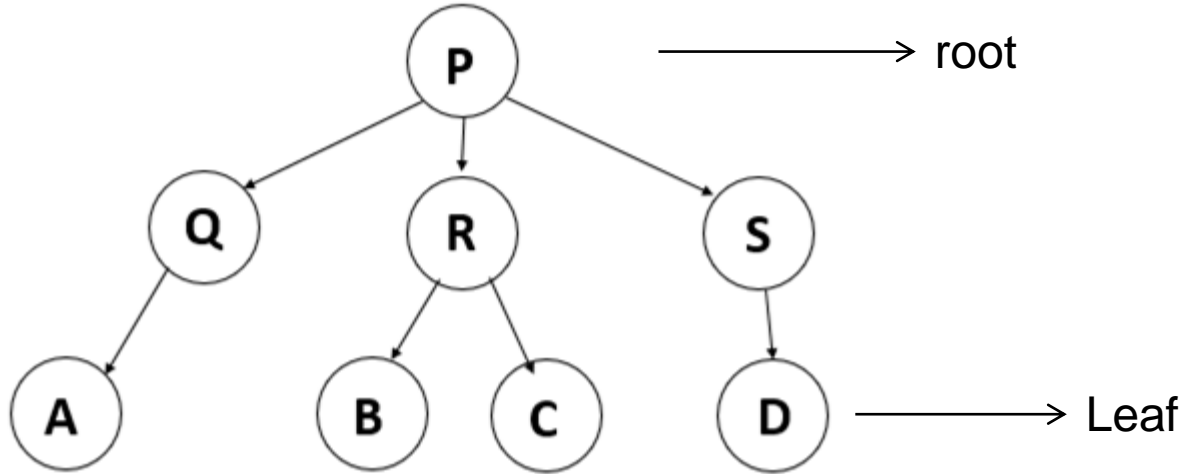
### Basic Terms



# Data Structure – Tree

## Introduction

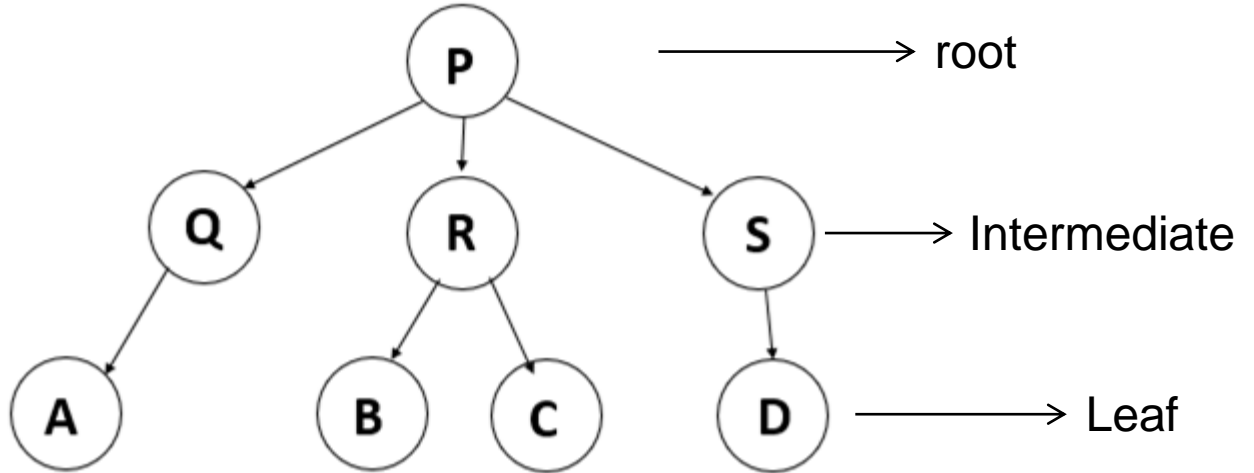
### Basic Terms



# Data Structure – Tree

## Introduction

### Basic Terms



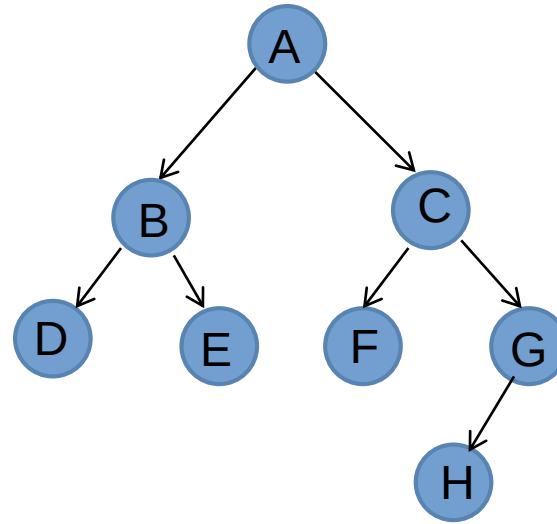
# Data Structure – Tree

## Introduction



### Basic Terms

#### Height



The Height of a tree is the number of edges on the longest path between a node and leaf

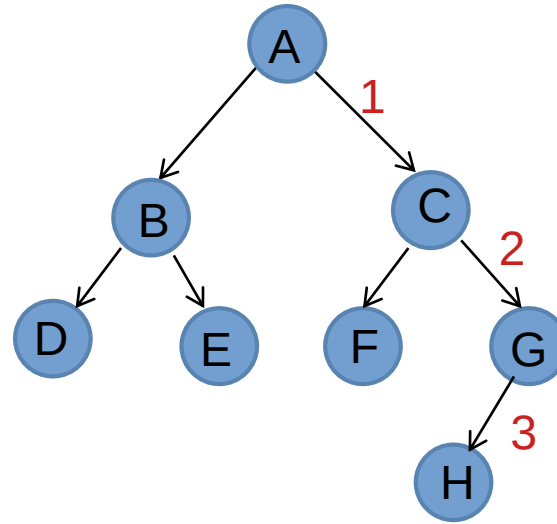
# Data Structure – Tree

## Introduction



### Basic Terms

#### Height



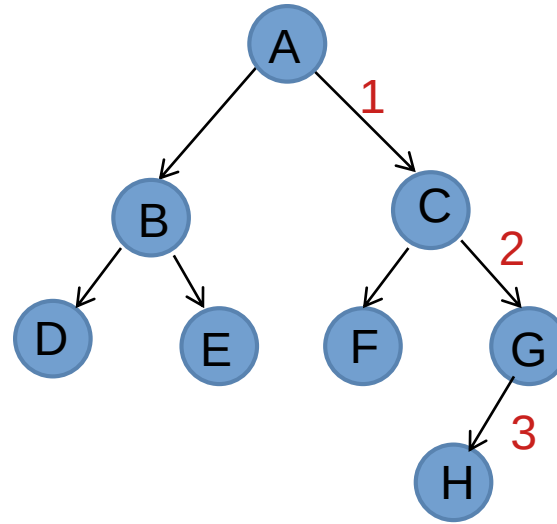
The Height of a tree is the number of edges on the longest path between a node and leaf

# Data Structure –Tree

## Introduction

### Basic Terms

#### Height



Height of Tree =3

The Height of a tree is the number of edges on the longest path between a node and leaf



## Types of Tree

- Binary Tree
- Ternary Tree
- N - array Tree

# Introduction



## Types of Tree

- Binary Tree      —————> Atmost 2 children
- Ternary Tree     —————> Atmost 3 children
- N - array Tree



# Introduction



## Types of Tree

- Binary Tree      —————> Atmost 2 children
- Ternary Tree     —————> Atmost 3 children
- N - array Tree

## Application of Tree

- Store hierarchical data, like folder structure, organization structure, XML/HTML data.
- Syntax Tree : Used in Compilers

# Binary Search Tree

