

# Algorithms: Binary Search Part-2

## Pre-read



## Things I should know before attending today's class.



We have already learned about the general concepts of searching mechanisms, linear search, and binary search. Before this session, we have seen concepts with linear search and binary search in JavaScript. In this session, we will learn about Ternary Search and also compare binary search and ternary search

## What is Binary Search?



Binary search is a type of algorithm that is used to find an item from the sorted list of given items.

Binary search trees have an invariant that says:

For every node  $x$ , all items in the left subtree are smaller than  $x$  and all items in the right subtree are larger than  $x$ .

## What is Ternary Search?



Like linear and binary search, ternary search is a searching technique used to determine the position of a specific value in an array. In binary search, the sorted array is divided into two parts, while in ternary search, the array is divided into three parts, and then we propagate the search to determine in which part the element exists.

## What will we be doing in this session?



We will be solving data structures and algorithms problems based on binary search and will deep dive into various approaches and discuss the time and space complexity for each of the following.

- Ternary Search
- Comparison of Binary Search and Ternary Search
- Binary Search problems