Advanced Problem Solving: Arrays and Objects Pre Read

Relevel
by Unacademy

Things I should know before attending today's class

We have already learned about the general concepts of arrays and objects. Before this session, we have seen basic problems with arrays and objects in JavaScript. In this session, we are going to learn some advanced problems on arrays and objects.

What is an array?

In JavaScript, arrays can be used to store different values in a sequential manner.
Ways of declaring an array

1. var relevel = [];
2. var relevel = new Array();

We will be seeing different functionalities of the array in this session

1. Length property of the array
2. Sort property of the array
3. Sort property of characters in a string
4. Frequency of element in an array
5. Subarray problems
6. Dealing with positive and negative numbers in an array

What is an object?

An object is a sorted or unsorted collection of zero or more name/value pairs. In addition, an object is a fundamental building block or unit in the Object-Oriented Programming (OOPs) language that describes real-world units or entities

We will be seeing different functionalities of the object in this session

1. Class objects and variables
2. String objects in JavaScript
3. Methods and properties of the String object

What we will be doing in this session?

We will be solving data structures and algorithms problems based on array and objects and will deep dive into various approaches and will discuss about the time and space complexity for each of the problems

- Anagram
- Print frequency of element in the string
- First non-repeating character
- Subarray with sum 0
- Subarray with sum x
- Longest consecutive sequence
- Shift Negative elements to the end of an array
- Cyclically Rotate Array by 1

Upcoming Class Teaser

- Intro to Recursion
- Base Cases
- Call Stack
- Type of recursion
- Fibonacci
- Factorial
- Problem Solving
- Print increasing Recursively
- Print Decreasing Recursively
- Check if the array is sorted Recursively
- Friends Pairing
- Number of binaries with no consecutive ones