Linked Lists
Pre-read

Relevel
by Unacademy

Prerequisite:

Arrays:

An Array is a single variable used to store multiple data or collect data in a linear format. For Example, when you are reading a book, then consider the book as a single variable that has multiple pages

Index → 0 1 2 3 4 5
var book = ['Page 1', 'Page 2 ','Page 3','Page 4','Page 5' ,'Page 6']

So, here the book is a single variable that stores different pages within it.
Each element in an array has a unique index that can be used to access the element from the array.
To access Page 3 from a book, we can write a book[2]
Index in the array always starts from 0.

Loops:

Like in other programming languages, in JavaScript also, we have concepts of the loops. Loops are used to execute a code until a given condition is met.
There are many ways to write a loop. In JavaScript, the most common loops are :
1. For Loop
2. While Loop
3. Do-while loop

For Eg, → if we want to print all numbers from 1 to 5 :

Without Loop :

```
console.log(1)
console.log(2)
console.log(3)
console.log(4)
console.log(5)
```

// Here, we are rewriting the same code five times, but only the value printed is changing.

With Loop:

```
for(let i=1;i<=5;i++) // This is a for Loop
   console.log(i);
```

Here, we are using a for Loop to print 1 to 5. We initialise a variable with 1(let i=1) and increase the value of i (i + +) till it is less than or equal to 5 (i<=5). If the condition (i<=5) is true, we print the value of i . Once I become 6, the Loop will stop executing.

Basics of programming

Knowledge of Time and Space Complexity

Learning in this session:

Linked List:

A Linked List is a linear data structure used to store collections of data.

It is dynamic in nature i.e. can grow and shrink in size during program execution.

Data in linked list is stored as a node, which has two items

1. Data
2. Link or Pointer to next node (next nodes address)