Javascript Concepts You Should Know

Hey Devs 👋

Javascript is everywhere. Millions of webpages are built on JS.

Let's discuss some of the basic concept of Javascript which are important to learn for any Javascript developer.

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Scope

Scope determines the accessibility of variables, objects and functions.

- In Javascript, a variable has 3 types of scope :
  a. Block Scope
  b. Function Scope
  c. Global Scope

Hoisting

Hoisting in Javascript is a behavior in which a function or variable can be used before declaration.

- In terms of variable and constant keyword var is hoisted, and let and const does not allow hoisting.

```
// Example with var
console.log(x); // Output: undefined
var x = 5;

// Example with let
console.log(y); // Throws an error
let y = 10;

// Example with const
console.log(z); // Throws an error
const z = 15;
```

Closures

Closure means that an inner function always has access to the variable of its outer function, even after the outer function has returned.

```
function outerFunction() {
    var outerVariable = "I'm from the outer function";
    function innerFunction() {
        console.log(outerVariable);
    }
    return innerFunction;
}

var myClosure = outerFunction();

// Even though outerFunction has finished executing,
// innerFunction still has access to outerVariable
myClosure(); // Output: "I'm from the outer function"
```

Callbacks

A callback function can be defined as a function passed into another function as a parameter.

```
function greet(name, callback) {
    console.log("Hi",name)
    callback()
}
// callback function
function callMe(){
    console.log("I am callback funtion")
}
// passing function as an argument
greet("Imtiyaz", callMe)

// output
// Hi Imtiyaz
// I am callback funtion
```

Async & Await

Stop and wait until something is resolved.

- We use the async keyword with a function to represent that the function is an asynchronous function.
- The async function returns a promise.

```
const showPost = async() => {
    const res= await fetch("https://xyz.com/posts")
    return res.posts;
}

console.log(showPost())
```

Promises

Promises is a good way to handle asynchronous operations.

- It's used to find out if the asynchronous operation is successfully completed or not.
- A promise may have one of three states:
  a. Pending
  b. Fulfilled
  c. Rejected