Javacsript

ABOUT ME

my name is Gulab SIngh, i graduated with a BCA degree from Rajasthan University. "Since 2021, I've been contributing as an Angular Developer at PytoSoft IT Solution. In this role, I've been involved in projects like

PytoBooks it's accounting system designed to optimizing

financial management for businesses of all sizes. And another projects are **GST Reconciliation** and **KYS**, where I designed multiple reusable components and modules And integrated REST APIs. I am passionate about developing user-friendly interfaces and collaborating with teams to deliver high-quality projects.

My experties incluing angular, html, css, js,ts

Javascript

JavaScript is a high-level, interpreted programming language primarily used for building dynamic and interactive web applications. It is widely known as the language of the web and is supported by all modern web browsers.

It is a language that can be used for both client-side scripting (running in the user's web browser) and server-side scripting (running on a web server).

Clouser

closure is a function that has access to variables from its outer scope, even after the outer function has finished executing.

Arrow Function

Arrow functions are a short way of writing functions and we don't need to write 'function' keyword in arrow function

Callback()

Callback is a function that is passed to another function as an argument.

Cookies

A cookie is generally a small data that is sent from a website and stored on the user's machine by a web browser

Cookies are used to remember information for later use and also to record the browsing activity on a website

Html element can be accessed in js code by

getElementByClass('classname')

getElementById('idname')

getElementbyTagName('tagname')

querySelector()

DOM and BOM

DOM(document object model) is about the structure and manipulation of the document's elements.

BOM(browser object model) is concerned with browser-specific features and interactions.

Angular utilizes both DOM and BOM to create dynamic and interactive user interfaces.

Trim()

removes whitespace from string

join()

it is used to join the elements of an array into a single string.

["Apple", "Banana"]; to "Apple, Banana"

toString()

convert array/number/object **to string**

parseint()

convert string to integer

slice(startIndex, endIndex)

String: Extracts a portion of a string.

Array: Extracts a section of an array and returns it as a new array.

splice(startIndex, deleteCount, item1, item2, ...)

Removes or replaces elements in an existing array.

```
let fruits = ["Apple", "Banana", "Orange", "Mango", "Grapes"];

let slicedFruits = fruits.slice(1, 4);

console.log(slicedFruits);  // Output: ["Banana", "Orange", "Mango"]

console.log(fruits);      // Original array remains unchanged

let removedFruits = fruits.splice(1, 3, "Peach", "Cherry");

console.log(removedFruits);  // Output: ["Banana", "Orange", "Mango"]

console.log(fruits);       // Original array modified: ["Apple", "Peach", "Cherry", "Grapes"]
```

charAt(index): Returns the character at the specified index in a string.

concat(str1, str2, ...): Concatenates two or more strings.

indexOf(searchValue, startIndex): Returns the index of the first occurrence of a specified value in a string.

Object Methods:

Object.keys(obj): Returns an array of a given object's own enumerable property names.

Object.values(obj): Returns an array of a given object's own enumerable property values.

Object.entries(obj): Returns an array of a given object's own enumerable property [key, value] pairs.

Math Methods:

Math.abs(x): Returns the absolute value of a number.

Math.random(): Returns a random floating-point number between 0 (inclusive) and 1 (exclusive).

Math.floor(x): Returns the largest integer less than or equal to a given number.

Array Iteration Methods:

map: Transforms each element and creates a new array.

filter: Filters elements based on a condition and creates a new array.

reduce: Reduces the array to a single value using the provided accumulator function.

forEach(callback(item, index, array)): Executes a provided function once for each array element.

Shallow copy deep copy

shallow copy creates a new object with copies of the original's values, but not its nested objects, while deep copy creates a new object with copies of all values, including nested objects, ensuring changes made to the copied object won't affect the original.

Spread and rest operator

- **Spread Operator (...)**:
  - Used to expand elements (like arrays or objects) into individual elements.
  - Example: **[...array]**, **{...object}**.
  - Common use cases: copying arrays or objects, merging arrays or objects, passing array elements as arguments to functions.

- **Rest Parameter (...)**:
  - Used in function's parameters to collect all remaining arguments into a single array.
  - Example: **function myFunction(...args)**.
  - Common use cases: functions with variable numbers of arguments, destructuring arrays.

In essence:

- **Spread Operator** spreads elements apart, while

Rest Parameter gathers elements together.aa