

JavaScript 30-Day Challenge: Day 1

Today's challenges focus on mastering the fundamentals of JavaScript. We'll explore creating a function that always returns "Hello World" and building a counter function with dynamic starting values.

```
let subjectAverage;  
query(  
  "SELECT * FROM marks WHERE subject_ID=" + subject  
)  
function (datasetsWithSubject) {  
  if (datasetsWithSubject.length > 0) {  
    subjectAverage = 0;  
    datasetsWithSubjectLength = datasetsWithSubject.length;  
    datasetsWithSubject.forEach((dataset) => {  
      subjectAverage += parseFloat(dataset["marks"]);  
    });  
    subjectAverage =  
      subjectAverage / datasetsWithSubjectLength;  
  } else {  
    subjectAverage = 0;  
  }  
}
```

HELLO W

Hello World

SCRIPT PRO

Creating a "Hello World" Function

1 Straightforward Implementation

The `createHelloWorld` function simply returns a new function that always outputs the greeting "Hello World".

2 Reusable Solution

This solution provides a convenient way to generate a consistent greeting message that can be used throughout an application.

3 Customizable Greeting

If needed, the function could be modified to return a different greeting message, making it a flexible tool.

1. Write a function `createHelloWorld`. It should return a new function that always returns "Hello World".

Solution :

```
var createHelloWorld = function() {  
  
  return function(...args) {  
  
    return "Hello World";  
  
  }  
  
};  
  
createHelloWorld();
```

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1

Building a Counter Function

1

Initialization

The `createCounter` function takes an initial value 'n' and returns a new function.

2

Counting

Each time the returned function is called, it increments the counter and returns the new value.

3

Flexibility

The counter function can start from any given integer, making it useful for a variety of counting tasks.

2. Given an integer `n`, return a `counter` function. This `counter` function initially returns `n` and then returns 1 more than the previous value every subsequent time it is called (`n`, `n + 1`, `n + 2`, etc).

Solution: 1

```
var createCounter = function(n) {  
  return function() {  
    return n++;  
  };  
};  
  
const counter = createCounter(10);  
  
counter();  
counter();  
counter();
```

Solution:2

```
var createCounter = function(n) {  
  let count = n;  
  return function() {  
    return n++ ;  
  };  
};
```


Counter Function Implementations

Solution 1

The first solution uses a closure to store the current count value and increments it on each function call.

Solution 2

The second solution uses a local variable 'count' to track the current value, which is incremented on each function call.

Comparison

Both solutions achieve the same functionality, demonstrating different approaches to implementing a counter function in JavaScript.



Conclusion: Mastering JavaScript Fundamentals

Hello World Function

The `createHelloWorld` function provides a reusable solution for generating a consistent greeting message.

Counter Function

The `createCounter` function offers a convenient way to create customizable counters with flexible starting values.

JavaScript Mastery

These challenges help developers strengthen their understanding of JavaScript fundamentals, preparing them for more complex projects.

Applying JavaScript Skills



Web Development

Mastering JavaScript fundamentals is crucial for building dynamic and interactive web applications.



Data Analysis

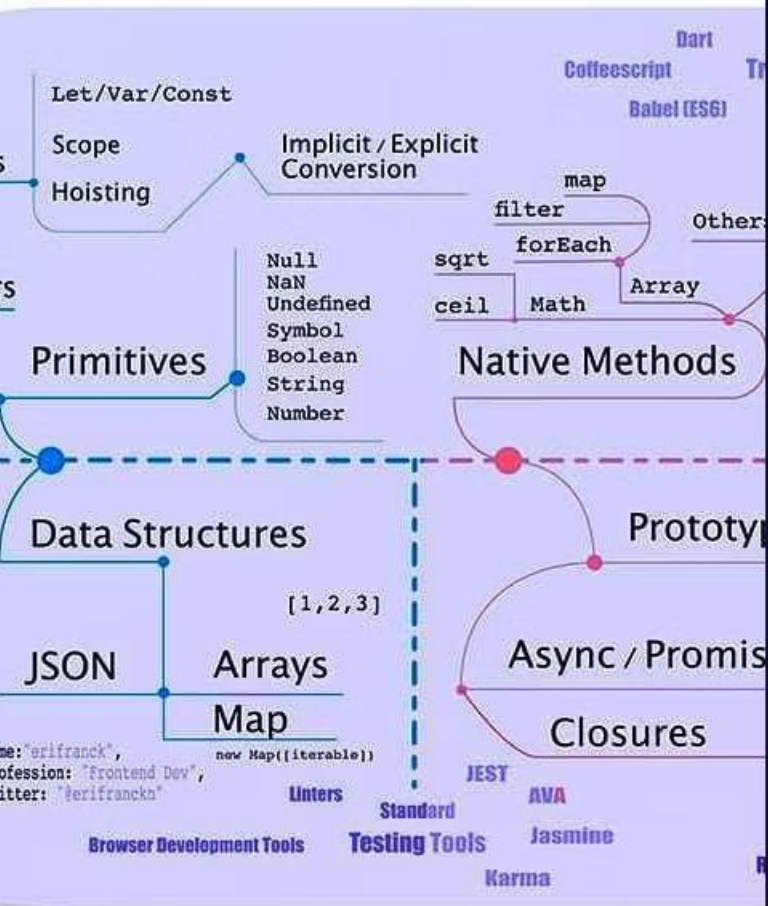
JavaScript's versatility extends to data manipulation and visualization, making it a valuable tool for analysts.



Automation

JavaScript's ability to handle repetitive tasks can be leveraged to create powerful automation scripts.

Script Road



Continuing the JavaScript Journey

1

Fundamentals

Mastering the basics lays a strong foundation for more advanced JavaScript concepts.

2

Frameworks & Libraries

Exploring popular frameworks like React, Angular, and Vue.js can expand your JavaScript expertise.

3

Advanced Topics

Diving into asynchronous programming, functional programming, and design patterns can deepen your JavaScript knowledge.