



Live Cohort

Notes Day 51

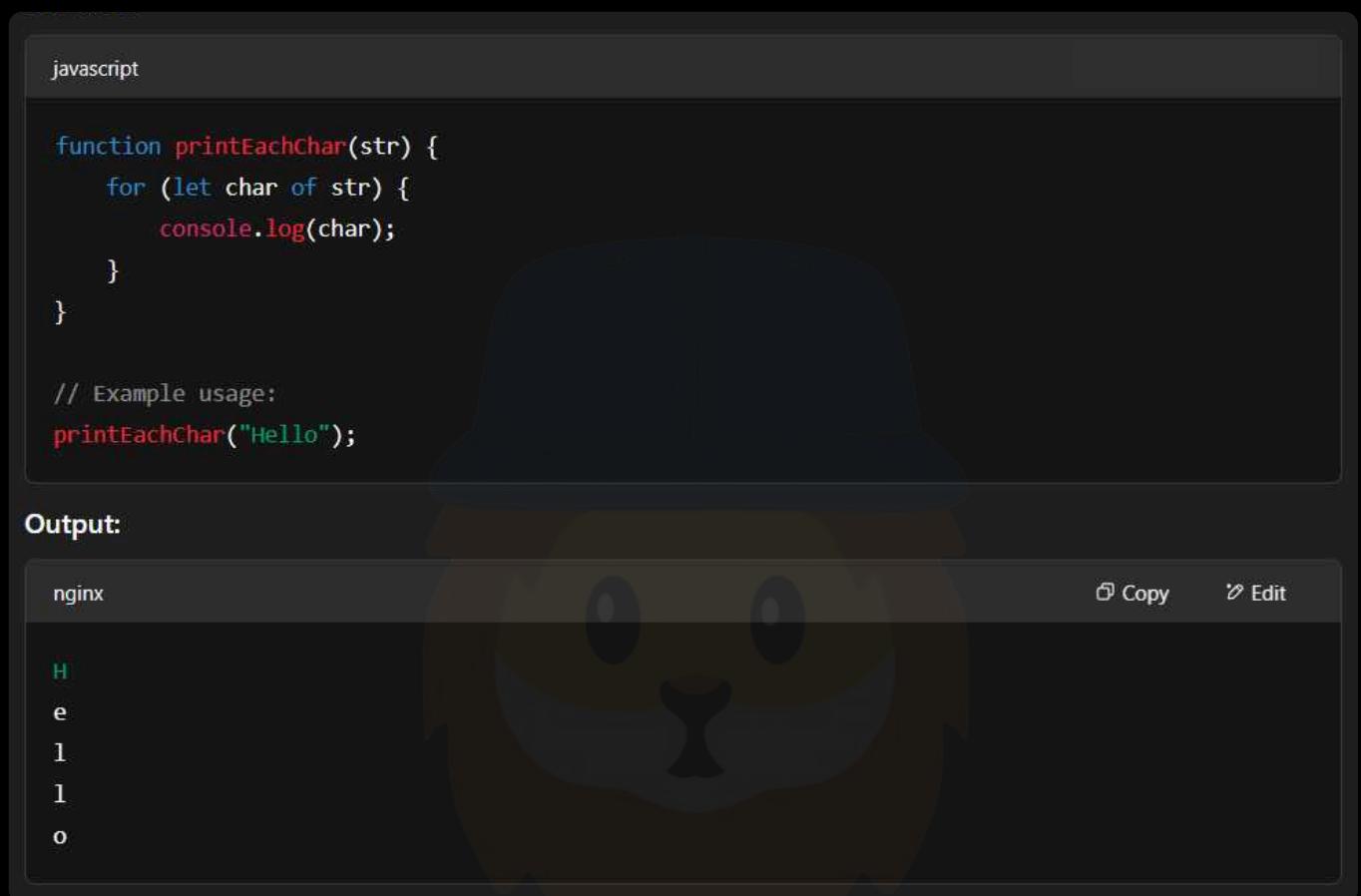


Q35. Print Each Character on a New Line

Problem:

Given a string, print each character on a separate line.

Solution:



```
javascript

function printEachChar(str) {
    for (let char of str) {
        console.log(char);
    }
}

// Example usage:
printEachChar("Hello");
```

Output:

```
nginx
```

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Explanation:

Using a for...of loop, we iterate through each character of the string and print it.

Q36. Print String in Reverse Order

Problem:

Reverse the characters of a string and print the reversed string.

Solution:

```
javascript

function printReverse(str) {
    let reversed = '';
    for (let i = str.length - 1; i >= 0; i--) {
        reversed += str[i];
    }
    console.log(reversed);
}

// Example usage:
printReverse("Hello");
```

Output:

nginx

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olleH

Explanation:

We start from the last character and keep adding each character to the reversed string till the first character is reached.

Q37. Check if String is Palindrome (Using Two-Pointer Approach)

Problem:

Check whether the input string is a palindrome (reads the same forward and backward).

Solution:

```
javascript

function isPalindrome(str) {
    let left = 0;
    let right = str.length - 1;

    while (left < right) {
        if (str[left] !== str[right]) {
            return false;
        }
        left++;
        right--;
    }
    return true;
}

// Example usage:
console.log(isPalindrome("madam")); // true
console.log(isPalindrome("hello")); // false
```

Explanation:

We compare characters from the beginning and the end using two pointers and move toward the center. If all characters match, it's a palindrome.

Q38. Toggle Each Alphabet Using ASCII Values

Problem:

Convert each uppercase letter to lowercase and vice versa, using ASCII values.

Solution:

```
javascript

function toggleCase(str) {
    let result = '';
    for (let i = 0; i < str.length; i++) {
        const charCode = str.charCodeAt(i);
        if (charCode >= 65 && charCode <= 90) { // A-Z
            result += String.fromCharCode(charCode + 32); // to lowercase
        } else if (charCode >= 97 && charCode <= 122) { // a-z
            result += String.fromCharCode(charCode - 32); // to uppercase
        } else {
            result += str[i]; // non-alphabetic characters remain same
        }
    }
    return result;
}

// Example usage:
console.log(toggleCase("AcgDfD")); // Output: "aCGdFd"
```

Explanation:

We check each character's ASCII code. If it's uppercase (A-Z), we add 32 to make it lowercase. If it's lowercase (a-z), we subtract 32 to make it uppercase.

Q39. Count Words with Given Prefix

Problem:

Given an array of words and a prefix, count how many words start with that prefix.

Solution:

javascript

```
function countPrefix(words, pref) {
    let count = 0;
    for (let word of words) {
        if (word.startsWith(pref)) {
            count++;
        }
    }
    return count;
}

// Example usage:
console.log(countPrefix(["pay", "attention", "practice", "attend"], "at")); // Output: 2
```

Explanation:

We use the `startsWith()` method to check if each word begins with the given prefix, and increment the counter accordingly.

Q40. Capitalize First & Last Character of Each Word

Problem:

Given a sentence, capitalize the first and last character of each word.

Solution:

```
javascript

let s = "hello bhai kya haal chaal";
let ans = "";
let arrStr = s.split(" ");

for (let i = 0; i < arrStr.length; i++) {
    let word = arrStr[i];
    if (word.length <= 2) {
        ans = ans + word.toUpperCase() + " ";
    } else {
        ans = ans + word.charAt(0).toUpperCase()
                    + word.substring(1, word.length - 1)
                    + word.charAt(word.length - 1).toUpperCase() + " ";
    }
}

console.log(ans);
```

Output:

```
nginx

Hello Bhai KYA HaaL Chaal
```

Explanation:

- If the word is 2 characters or less, convert the whole word to uppercase.
- Otherwise, capitalize the first and last characters and keep the rest of the characters as-is.