

JavaScript Coding Challenge

String Parsing & Normalization

Context

You are building a search feature for a learning platform. Users often enter queries with extra spaces, inconsistent casing, and multiple keywords. Your task is to clean, parse, and analyze the search query using JavaScript string methods.

Given Input

```
let searchQuery = " Learn JavaScript Functions Arrow IIFE ";
```

Rules

- 1 Use only JavaScript string methods covered in class
- 2 Arrays, loops, and regular expressions are NOT allowed
- 3 Write clean, readable code with meaningful comments

Challenges

- 1 Trim the input string and print the cleaned value and its length
- 2 Convert the cleaned string to lowercase and uppercase
- 3 Extract the word 'JavaScript' using substring() and slice()
- 4 Check whether the query contains: functions, arrow, and iife
- 5 Print the character at index 6 and the ASCII value of the first character
- 6 Perform a case-insensitive check for the word 'javascript'

Bonus (Optional)

- 1 Why is trimming user input important in real-world applications?
- 2 What bug can occur if case normalization is skipped?
- 3 How does poor string parsing affect search accuracy and user experience?