

Our Features:

Our project added a LeetCode-style Daily Coding Challenge feature to Fake StackOverflow so users can practice data structures and algorithms in a structured way. Each day, a single DSA question appears on the challenge page with automatic judging, a daily leaderboard with scores, giving users consistent practice and a competitive platform. We also integrated GitHub OAuth for authentication, making it easy for developers to sign in with their existing accounts. Every challenge has its own comments and solutions section, so after submitting, users can discuss approaches, share code, and learn from others' implementations while moderators maintain quality through tagged problems, difficulty levels, and test cases.

Technology stack and Designs:

The frontend is React with TypeScript, Socket.io-client, Monaco Code Editor, and Axios. The backend is a Node.js/Express REST API with MongoDB, Socket.io for real-time features, GitHub OAuth with Passport, Google Gemini, and Judge0 API for challenge submissions. Testing uses Cypress for E2E and Jest for unit tests. Deployed using Render.

Additionally, we had a CI/CD pipeline in order to streamline our deployment process. Automated tests are ran during the pipeline, and the site is deployed once they are passed.

Daily Leaderboard

Challenge ends: 11/26/2025, 12:16:19 AM

RANK	USERNAME	SCORE	FIRST SOLVE TIME
1	JacobC	122	11/25/2025, 12:19:15 AM
2	Julain	120	11/25/2025, 12:20:22 AM
3	kabir	102	11/25/2025, 12:21:14 AM
4	sarthak123	72	11/25/2025, 12:15:36 AM

StreakOverflow

Moderator Dashboard

AI Generated Manual Creation All Challenges

Generate Challenge with AI

Topic:
 Difficulty:
 Title:
 Generate Challenge

Generated Challenge Preview

Title: Count Evens
 Prompt:
 Write a function that takes a single string as input and returns the total number of even digits found in it. For this problem, vowels are defined as 'a', 'e', 'i', 'o', 'u'. The input string will only contain lowercase English letters. Your solution should treat the string from standard input and print the result to standard output.
 Constraints: The input string 's' will contain only lowercase English letters ('a-z'). 1 ≤ len(s) ≤ 100
 Tags: Strings, Easy, Beginner, Python
 Public Tests: 2
 Hidden Tests: 2
 Save Challenge

Daily Challenge Hub

Sum of Even Numbers in an Array

EASY

Arrays Loops Conditional Logic Beginner

Time Remaining: 23h 59m 58s
 Submission Limit: 5 attempts
 Language: python3

Start Challenge

View Leaderboard

Code Editor (python3)

```
def solution(s):
    count = 0
    for char in s:
        if char in 'aeiou':
            count += 1
    return count

# Example usage
input_string = "aeiouAEIOU"
result = solution(input_string)
print(result)
```

Submit Code

Accepted

Runs: 2/20 Memory: 4000KB Score: 100

Public Test Cases (2 / 2 Passed)

Test Case 1 100%

Input:
 aeioUWORLD

Expected Output:
 5

Your Output:
 5

Future work:

Future work could include analytics dashboards for user engagement and challenge performance, additional challenge modes that allow multiple challenges per day beyond the current daily limit, expanded language support beyond Python, system design questions, rewards for solving challenges, a friends system, and a friends leaderboard to compare progress with connections.

Deployed: <https://cs4530-f25-102.onrender.com>