Competition 6 Analysis

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Link to challenges: https://www.hackerrank.com/contests/competitive-programming-st-andrews-beta-contest-5/challenges

Overall comments

This competition had 2 original questions (Q1 and Q2) and 2 were from the Hackerrank library. There was an issue in question 3 where the image was not loading. There were a total of 19 signups however only 10 users made at least one submission. A few users who participated in the contest made successful submissions after the contest as well.

Number of contestants who made a submission: 10
Highest score: 350/1000
Lowest score: 55/1000
Mean: 194.6/1000
Median: 170.2/1000
Mode: 100/1000

Question 1 - Bitwise Or & And (100)

Highest score: 100/100
Lowest score: 55/100
Mean: 95/100
Number of attempts: 10
Difficulty: Easy

This question was relatively straightforward. It was intended to be easy for those who were familiar with bitwise operations. Additionally, it aimed to introduce people who are unfamiliar to basic bitwise operations. It was intended to be solved in a few lines. All users that made a submission in this contest attempted this question and almost all users gained perfect 100 points.

Question 2 - Two Sum (Prime Edition)

Highest score: 250/250
Lowest score: 56.12/250
Mean: 175.6/250
Number of attempts: 5
Difficulty: Medium

This question aimed to test how optimally one write code when working with prime numbers. There were a wide range of scores (56.12, 84.18, 209.18, 224.49, 237.25, 250) . This was mainly due to non optimal solutions and users not considering identical pairs (for instance; 2 + 2 giving 4 and 11 + 11 giving 22 where 2 and 11 are primes). Test cases had higher weight to reward more optimal solutions. Some users failed a few specific test cases, this was due to them not considering the smallest number that can be written in the maximum number of ways.

Question 3 - Components in a graph (250)

Highest score: 112.9/250
Lowest score: 112.9/250
Mean: 112.9/250
Number of attempts: 1
Difficulty: Medium
Source: https://www.hackerrank.com/challenges/components-in-graph/problem

This question aimed to test proficiency with graphs. The intention was also to encourage those with less practice with graphs to attempt it as well. However, this question had some issues as the image was not loading so it was harder to understand the example.

Question 4 - Sherlock's Array Merging Algorithm (400)

Source: https://www.hackerrank.com/challenges/sherlocks-array-merging-algorithm/problem

This question was the hardest question in the contest. A possible solution could involve DP. There were no successful submissions to this question.