



# NEW TECHNOLOGISTS

## SECOND ROUND QUESTIONNAIRE

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Answer all questions and email back as a PDF file titled "Full Name\_NT21.pdf".  
Questions #1, #2, #4, #5 & #6 should not exceed more than 300 words each.

1. What's a big question or problem in the tech field you'd like to solve and why?
2. Think of a time when you went from beginner to proficient on a topic or skill. How could you achieve that change more efficiently or easily next time?
3. Coding Question: For the index position in an array where the sum of elements at lower indexes is equal to the sum of elements at higher indexes. **Write a function `int balanced(int[] arr)`; that given a sequence `arr[]` of size `n`, returns the index (if any) or -1 if no index position is found.**
  - a. Include comments within your code. Be detailed.
  - b. What other approaches did you consider to solve this question and why did you choose this approach?
  - c. List any assumptions.

### Examples

**Input:** `A[] = [-8, 2, 6, 2, -5, 4, 1]`

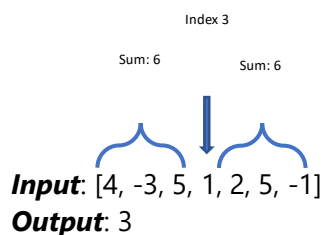
**Output:** 3

3 is an index that works, because:


$A[0] + A[1] + A[2] = A[4] + A[5] + A[6]$


**Input:** `A[] = {2, 4, 6}`

**Output:** -1 ← because no appropriate index exists





Sum: 16      Index 1      Sum: 16  
  
**Input:** [16, 8, 2, 4, 4, 6]  
**Output:** 1

Sum: 7      Index 5      Sum: 7  
  
**Input:** [2, 4, 4, 0, -3, 3, 1, 6]  
**Output:** 5

**Input:** [2, 3, 5, 5, 2]  
**Output:** -1

4. How would you redesign your favorite app? What would you add or change and why?
5. Innovative and high-performing teams require active collaboration. Please describe an experience you've had that indicates you can thrive in a similar setting.
6. We understand that you are a multifaceted individual with various experiences that have shaped who you are today. Please fill in the blanks below and feel free to expand on your answer.

Fill in the blanks: I am \_\_\_\_\_ because of \_\_\_\_\_.