

## Question # 6

### Description:

#### Three Number Sum

Difficulty: Medium    Category: Array

Write a function that takes in a non-empty array of distinct integers and an integer representing a target sum. The function should find all triplets in the array that sum up to the target sum and return a two-dimensional array of all these triplets. The numbers in each triplet should be ordered in ascending order, and the triplets themselves should be ordered in ascending order with respect to the numbers they hold. If no three numbers sum up to the target sum, the function should return an empty array.

#### Sample Input

array = [12, 3, 1, 2, -6, 5, -8, 6].    targetSum = 0

#### Sample Output

[[ -8, 2, 6], [ -8, 3, 5], [ -6, 1, 5]]

#### Directions :

- Solve the problem on your own.
- No group effort.
- If possible, provide more than one solution/strategy.
- Different approaches will be great for discussion.
- If you are stuck no problem. Student will experience the same.
- **Do not google it.** Try to build your own solution. It might be ugly no worries.
- We will discuss it on 3<sup>rd</sup> November 2021 09:30 EST.

**Good luck!**

**Fatih**