

DAY 40

INTERVIEW BIT PROBLEMS :

1. Triplets with Sum between given range

Given an array of real numbers greater than zero in form of strings.
Find if there exists a triplet (a,b,c) such that $1 < a+b+c < 2$.
Return 1 for true or 0 for false.

Example:

Given [0.6, 0.7, 0.8, 1.2, 0.4] ,

You should return 1

as

$0.6+0.7+0.4=1.7$

$1 < 1.7 < 2$

Hence, the output is 1.

$O(n)$ solution is expected.

Note: You can assume the numbers in strings don't overflow the primitive data type and there are no leading zeroes in numbers. **Extra memory usage is allowed.**

CODE :

PYTHON

class Solution:

 # @param A : list of strings

 # @return an integer

 def solve(self, A):

 n=len(A)

 l=[]

 # assigning the values from the list of strings to new list of floats

 for x in A:

 l.append(float(x))

 a=l[0]

 b=l[1]

 c=l[2]

 for i in range(3,n):

 if((a+b+c)<2 and (a+b+c)>1):

 return 1

 elif (a+b+c)>2:

 if(a>b and a>c):

 a=l[i]

 elif (b>a and b>c):

 b=l[i]

 else:

 c=l[i]

 else:

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    if(a<b and a<c):
        a=l[i]
    elif (b<a and b<c):
        b=l[i]
    else:
        c=l[i]
if((a+b+c)<2 and (a+b+c)>1):
    return 1
else:
    return 0
```