
LEETCODE
DAY 2 - GETTING STARTED II

Problem List

1295. Find Numbers with Even Number of Digits -

977. Squares of a Sorted Array - Array

1089. Duplicate Zeros -

9. Palindrome Number

69. Sqrt(x)

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1672. Richest Customer Wealth - Arrays

485. Max Consecutive Ones - Arrays

Problem 1: 1295. Find Numbers with Even Number of Digits

Given an array nums of integers, return how many of them contain an even number of digits.

Solution:

```python
class Solution:
    def findNumbers(self, nums: List[int]) -> int:
        count=0
        for i in nums:
            if(len(str(i))%2==0):
                count+=1
        return count
```

Problem 2: 977. Squares of a Sorted Array - Array

Given an integer array nums sorted in non-decreasing order, return an array of the squares of each number sorted in non-decreasing order.

Solution:

```python
class Solution:
    def sortedSquares(self, nums: List[int]) -> List[int]:
        j=0
        for i in nums:
            nums[j]=nums[j]*nums[j]
            j+=1
        nums.sort()
        return nums
```

Problem 3: 1089. Duplicate Zeros

Given a fixed-length integer array arr, duplicate each occurrence of zero, shifting the remaining elements to the right. Note that elements beyond the length of the original array are not written. Do the above modifications to the input array in place and do not return anything.

Solution:

```python
class Solution:
    def duplicateZeros(self, arr: List[int]) -> None:
        list1=[]
        for i in arr:
            if(i==0):
                list1.append(0)
                list1.append(0)
            else:
                list1.append(i)
        for i in range(len(arr)):
            arr[i]=list1[i]
```

Problem 4: 9. Palindrome Number

Given an integer x, return true if x is a palindrome, and false otherwise.

Solution:

```python
class Solution:
    def isPalindrome(self, x: int) -> bool:
        a=str(x)
        list=[]
        for i in a:
            list.append(i)
        list.reverse()
        b=""
        for i in list:
            b+=i
        if(a==b):
            return True
        return False
```

Problem 5: 1822. Sign of the Product of an Array

There is a function signFunc(x) that returns: 1 if x is positive. -1 if x is negative. 0 if x is equal to 0. You are given an integer array nums. Let product be the product of all values in the array nums. Return signFunc(product).

Solution:

```python
class Solution:
    def arraySign(self, nums: List[int]) -> int:
        prod=1
        for i in nums:
            prod*=i
        if prod>0:
            return 1
        elif prod<0:
            return -1
        else:
            return 0
```

Problem 6: 1480 Running Sum Of 1d Array

Given an array nums. We define a running sum of an array as runningSum[i] = sum(nums[0]…nums[i]). Return the running sum of nums.

Solution:

```python
class Solution:
  def runningSum(self, nums: List[int]) -> List[int]:
    return itertools.accumulate(nums)
```

Problem 7: 485. Max Consecutive Ones

Given a binary array nums, return the maximum number of consecutive 1's in the array.

Solution:

```python
class Solution:
  def findMaxConsecutiveOnes(self, nums: List[int]) -> int:
    ans=0
    summ=0
    for num in nums:
      if num==0:
        summ=0
      else:
        summ+=num
        ans=max(ans, summ)
    return ans
```

Problem 8 : 1342. Number of Steps to Reduce a Number to Zero

Given an integer num, return the number of steps to reduce it to zero. In one step, if the current number is even, you have to divide it by 2, otherwise, you have to subtract 1 from it.

Solution:

```
class Solution:
    def numberOfSteps(self, num: int) ->
int:    c=num
        count=0
        while(c!=0):
            if(c%2==0):
                c=c/2
            else:
                c=c-1
            count+=1
        return count
```

Problem 9: 1672 Richest Customer Wealth

You are given an m x n integer grid accounts where accounts[i][j] is the amount of money the ith customer has in the jth bank. Return the wealth that the richest customer has. A customer's wealth is the amount of money they have in all their bank accounts. The richest customer is the customer that has the maximum wealth.

Solution:

```python
class Solution:
  def maximumWealth(self, accounts: List[List[int]]) -> int:
    return max(map(sum, accounts))
```

Problem 10: 1491. Average Salary Excluding the Minimum and Maximum Salary

You are given an array of unique integers salary where salary[i] is the salary of the ith employee. Return the average salary of employees excluding the minimum and maximum salary. Answers within 10-5 of the actual answer will be accepted.

Solution:

```
class Solution:
    def average(self, salary: List[int]) ->
float:  avg=0.0
        summ=0
        for i in salary:
            summ+=i
        summ=summ-max(salary)-min(salary)
        avg=summ/(len(salary)-2)
        return avg
```