

Problem 1363: Largest Multiple of Three

Problem Information

Difficulty: **Hard**

Acceptance Rate: 33.07%

Paid Only: No

Tags: Array, Math, Dynamic Programming, Greedy, Sorting

Problem Description

Given an array of digits `digits`, return _the largest multiple of **three** that can be formed by concatenating some of the given digits in **any order**_. If there is no answer return an empty string.

Since the answer may not fit in an integer data type, return the answer as a string. Note that the returning answer must not contain unnecessary leading zeros.

Example 1.

Input: digits = [8,1,9] **Output:** "981"

Example 2.

Input: digits = [8,6,7,1,0] **Output:** "8760"

Example 3.

Input: digits = [1] **Output:** ""

Constraints:

$1 \leq \text{digits.length} \leq 104$ $0 \leq \text{digits}[i] \leq 9$

Code Snippets

C++:

```
class Solution {  
public:  
    string largestMultipleOfThree(vector<int>& digits) {  
  
    }  
};
```

Java:

```
class Solution {  
    public String largestMultipleOfThree(int[] digits) {  
  
    }  
}
```

Python3:

```
class Solution:  
    def largestMultipleOfThree(self, digits: List[int]) -> str:
```