ARRAY : Video - 69

Medium

Leetcode - 2391

...E.A.S.Y...

Minimum Amount of Time to Collect Garbage ...

Facebook
Instagram → codestorywithMIK

(Twitter) → CSwithMIK

codestorywithMIK →

Company :- Will soon update...

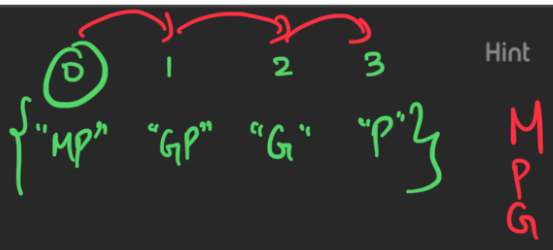
2391. Minimum Amount of Time to Collect Garbage

Hint

Medium 805 92

Companies

travel[2]
travel[0]
travel[1]



You are given a **0-indexed** array of strings `garbage` where `garbage[i]` represents the assortment of garbage at the `i^th` house. `garbage[i]` consists only of the characters `'M'`, `'P'` and `'G'` representing one unit of metal, paper and glass garbage respectively. Picking up **one** unit of any type of garbage takes `1` minute.

You are also given a **0-indexed** integer array `travel` where `travel[i]` is the number of minutes needed to go from house `i` to house `i + 1`.

There are three garbage trucks in the city, each responsible for picking up one type of garbage. Each garbage truck starts at house `0` and must visit each house **in order**; however, they do **not** need to visit every house.

Only **one** garbage truck may be used at any given moment. While one truck is driving or picking up garbage, the other two trucks **cannot** do anything.

Return *the **minimum** number of minutes needed to pick up all the garbage.*

Example:-

garbage = {"G", "P", "GP", "GG"}
(0) (1) (2) (3)

travel = {2, 4, 3}
(0) (1) (2)

Output = 21

Thought Process

M P G

0 1 2 3

garbage = {"G", "P", "GP", "GG"}

travel = {2, 4, 3}

Pref. sum = {2, 6, 9}

21

(1) Garbage Pickup = 1 + 1 + 2 + 2

(2) Travel time = 2 + 4 + 2 + 4 + 3

⇒ P_idx = 2 = 6

⇒ G_idx = 3 = (3-1) 9

⇒ M_idx =