A&E Waiting Time Coding Challenge

Task

Let's imagine that we are at the A&E "walk-in" hospital. There are many patients that have medical issues of different complexity and each of those patients needs to be seen by a doctor. There is only one doctor at the hospital. Whilst one patient is being attended by a doctor, the rest of the patients are waiting. It takes different amount of time to see one patient (depends on their medical issue).

You are given a non-empty array of positive integers representing the amounts of time it takes to attend a specific patient. Only one patient can be seen at a time, but the patents can be called-in to be seen in any order.

Patient's waiting time is defined as the amount of time that he/she must wait before their session with the doctor starts. In other words, if a patient is being seen second, then their waiting time is the duration of the first patient's session. If a patient is seen third, then their waiting time is the sum of the durations of the first two patients.

Write a function that returns the minimum amount of **total** waiting time **for all** of the patients.

For example, if there are three patients with sessions durations [1 min, 4 min, 5 min] and, let's say, those patients are being seen by the doctor in the order of [5, 1, 4], then the total waiting time of all patients would be (0) + (5) + (5 +1) = 11

- The first patient with duration 5 min would be attended to immediately, so their waiting time would be 0
- The second patient of duration 1min would have to wait 5 min (the duration of the first patient) to be attended by medical staff.
- The last patient would have to wait the duration of the first two patient before they get to see a doctor.

NB: You are allowed to mutate the input array, if you need to do so for your solution

Sample Input

queries = [3, 2, 1, 2, 6]

Sample Output

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