🚀 December(https://leetcode.com/discuss/general-Storediscussion/655704/)
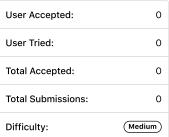
5622. Average Waiting Time

My Submissions (/contest/biweekly-contest-42/problems/average-waiting-time/submissions/) | Back to Contest (/contest/biweekly-contest-42/)

There is a restaurant with a single chef. You are given an array `customers`, where `customers[i] = [arrival_i, time_i]`:

- `arrival_i` is the arrival time of the ith customer. The arrival times are sorted in **non-decreasing** order.
- `time_i` is the time needed to prepare the order of the ith customer.

When a customer arrives, he gives the chef his order, and the chef starts preparing it once he is idle. The customer waits till the chef finishes preparing his order. The chef does not prepare food for more than one customer at a time. The chef prepares food for customers **in the order they were given in the input**.

Return *the **average** waiting time of all customers*. Solutions within 10^{-5} from the actual answer are considered accepted.

User Accepted:	0
User Tried:	0
Total Accepted:	0
Total Submissions:	0
Difficulty:	Medium

Example 1:

```
ut: customers = [[1,2],[2,5],[4,3]]
put: 5.00000
planation:
 The first customer arrives at time 1, the chef takes his order and starts preparing it immediately at time 1, and finishes at ti
 The second customer arrives at time 2, the chef takes his order and starts preparing it at time 3, and finishes at time 8, so th
 The third customer arrives at time 4, the chef takes his order and starts preparing it at time 8, and finishes at time 11, so th
 the average waiting time = (2 + 6 + 7) / 3 = 5.
```

Example 2:

```
Input: customers = [[5,2],[5,4],[10,3],[20,1]]
Output: 3.25000
Explanation:
1) The first customer arrives at time 5, the chef takes his order and starts preparing it immediately at time 5, and finishes a
2) The second customer arrives at time 5, the chef takes his order and starts preparing it at time 7, and finishes at time 11,
3) The third customer arrives at time 10, the chef takes his order and starts preparing it at time 11, and finishes at time 14,
4) The fourth customer arrives at time 20, the chef takes his order and starts preparing it immediately at time 20, and finishe
So the average waiting time = (2 + 6 + 4 + 1) / 4 = 3.25.
```

Constraints:

- $1 <= customers.length <= 10^5$
- $1 <= arrival_i, time_i <= 10^4$
- $arrival_i <= arrival_{i+1}$

JavaScript ▼

```
1 ▼ /**
2    * @param {number[][]} customers
3    * @return {number}
4    */
5 ▼ const averageWaitingTime = (customers) => {
6      let n = customers.length;
7      let start = customers[0][0];
8      let finish = start + customers[0][1];
9      let wait = finish - start;
10 ▼    for (let i = 1; i < n; i++) {
11        let c = customers[i];
12 ▼      if (c[0] <= finish) {
13            start = finish;
14            finish += c[1];
15            wait += finish - c[0];
16 ▼      } else {
17            finish = c[0];
18            finish += c[1];
19            wait += c[1];
20        }
21      }
```

```
22        return wait / n;
23    };
```

☐ **Custom Testcase**   (Use Example Testcases)

(▶ Run)   (☁ Submit)

Submission Result: Accepted (/submissions/detail/434774756/) ❓   (More Details ❯ (/submissions/detail/434774756/))

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