Competitive Programming SS24

Submit until end of contest

Problem: farida (1.0 second timelimit)

Once upon a time there was a cute princess called Farida living in a castle with her father, mother and uncle. On the way to the castle there lived many monsters. Each one of them had some gold coins. Although they are monsters they will not hurt. Instead they will give you the gold coins, but only if you didn't take any coins from the monster directly before the current one. To marry princess Farida you have to pass all the monsters and collect as many coins as possible. Given the number of gold coins each monster has, calculate the maximum number of coins you can collect on your way to the castle.

Input The first line contains the number N, the number of monsters, $1 \leq N \leq 10^5$. The next line will have N numbers m_i, indicating number of coins each monster has, $1 \leq m_i \leq 10^5$. Monsters are described in the order they are encountered on the way to the castle.

Output Print the maximum number of coins you can collect.

Sample input

```
4
3 9 10 2
```

Sample output

```
13
```