

## 739. Daily Temperatures

Medium

👍 3949

💬 120

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Given a list of daily temperatures `T`, return a list such that, for each day in the input, tells you how many days you would have to wait until a warmer temperature. If there is no future day for which this is possible, put `0` instead.

For example, given the list of temperatures `T = [73, 74, 75, 71, 69, 72, 76, 73]`, your output should be `[1, 1, 4, 2, 1, 1, 0, 0]`.

**Note:** The length of `temperatures` will be in the range `[1, 30000]`. Each temperature will be an integer in the range `[30, 100]`.

Use the template of monotonic stack.



```
1 class Solution {
2 public:
3     vector<int> dailyTemperatures(vector<int>& T) {
4         stack<int> stack; // monotonic stack
5         vector<int> res(T.size()); // store result in index
6
7         // push into stack in reverse order
8         for (int i = T.size() - 1; i >= 0; i--) {
9             while (!stack.empty() && T.at(stack.top()) <= T.at(i)) {
10                 // remove the smaller one
11                 stack.pop();
12             }
13             // stack.top() is index for the next greater elements
14             res.at(i) = stack.empty() ? 0 : (stack.top() - i);
15
16             stack.push(i);
17         }
18
19         return res;
20     }
21 };
```