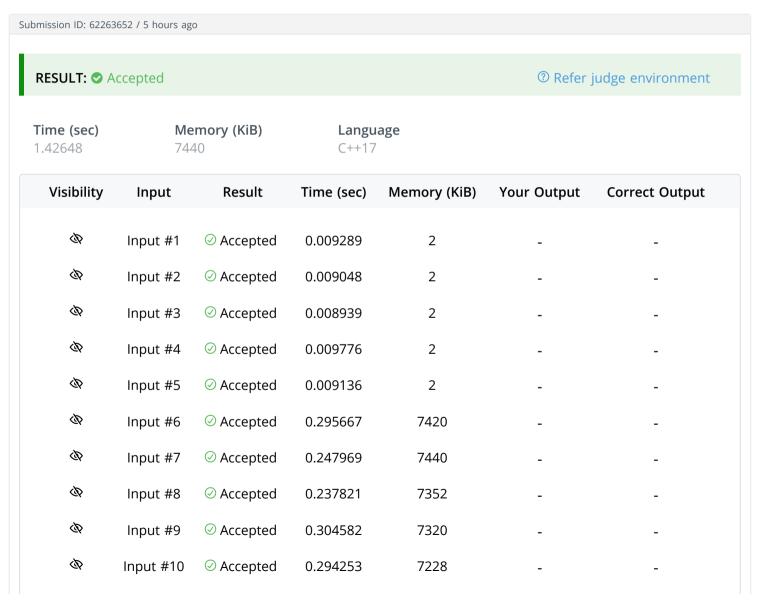


## **h**ackerearth

## Platform jumps / Submission (62263652) by Suraj Kumar (ThinkTwice)



**Submission:** 

```
Theme: Light ~
```

```
#include<bits/stdc++.h>
 1.
     using namespace std;
 2.
 3.
     void bfs(int node, vector <vector <int>> &graph, vector <int> &res, int curr) {
 4.
 5.
         queue <int> q;
         q.push(node);
 6.
         res[node] = curr;
 7.
 8.
         while(q.size()) {
9.
              node = q.front();
10.
              q.pop();
             for(auto child: graph[node]) {
11.
                  if(res[child] == -1) {
12.
                      res[child] = res[node] + 1;
13.
14.
                      q.push(child);
15.
16.
17.
18.
19.
20.
     vector<int> Min_Jumps (int n, vector<int> a) {
         // Write your code here
21.
22.
         vector <int> ngr, ngl;
23.
         stack <int> s;
24.
         for(int i = 0; i<n; i++) {
             while(s.size() && a[s.top()] < a[i]) s.pop();
25.
             if(s.size() == 0) ngl.push_back(-1);
26.
             else ngl.push_back(s.top());
27.
28.
              s.push(i);
29.
30.
         while(s.size()) s.pop();
31.
         for(int i = n-1; i > = 0; i--) {
             while(s.size() && a[s.top()] < a[i]) s.pop();
32.
             if(s.size() == 0) ngr.push_back(-1);
33.
              else ngr.push_back(s.top());
34.
35.
              s.push(i);
```

```
36.
          reverse(ngr.begin(), ngr.end());
37.
38.
          int ind = -1;
39.
          int mx = -1;
          for(int i = 0; i < n; i++) {
40.
              if(a[i] > mx) {
41.
                  mx = a[i];
42.
43.
                  ind = i;
44.
45.
          ngr[ind] = ind;
46.
47.
          ngl[ind] = ind;
48.
          vector <vector <int>> graph(n+1);
49.
          for(int i = 0; i < n; i++) {
50.
              if(ngr[i] != -1) {
51.
52.
                  graph[ngr[i]].push back(i);
53.
              }
54.
55.
          for(int i = 0; i < n; i++) {
              if(ngl[i] != -1) {
56.
57.
                  graph[ngl[i]].push back(i);
58.
              }
          }
59.
60.
          // for(int i = 0; i<n; i++) {
61.
          // cout<<i<" -> ";
62.
                 for(auto x: graph[i]) cout<<x<<" ";</pre>
63.
64.
          //
                 cout<<endl;
          // }
65.
          // cout<<endl;</pre>
66.
67.
          // for(auto x: ngr) cout<<x<<" ";</pre>
          // cout<<endl;</pre>
68.
          // for(auto x: ngl) cout<<x<<" ";</pre>
69.
70.
          // cout<<endl;</pre>
          vector <int> res(n, -1);
71.
72.
          bfs(ind, graph, res, ∅);
73.
74.
          return res;
75. }
76.
77. int main() {
```

?

```
., .
 78.
 79.
           ios::sync with stdio(∅);
           cin.tie(∅);
 80.
 81.
           int T;
 82.
           cin >> T;
           for(int t i = 0; t i < T; t i++)
 83.
 84.
 85.
               int N;
 86.
               cin >> N;
 87.
               vector<int> A(N);
               for(int i A = 0; i A < N; i A++)
 88.
 89.
                        cin >> A[i_A];
 90.
 91.
 92.
 93.
               vector<int> out ;
               out_ = Min_Jumps(N, A);
 94.
               cout << out [0];</pre>
 95.
 96.
               for(int i out = 1; i out < out .size(); i out ++)</pre>
 97.
                        cout << " " << out_[i_out_];</pre>
 98.
99.
               cout << "\n";</pre>
100.
101.
102.
```

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