

神秘喵喵文档

army

```

1 #include <bits/stdc++.h>
2 using namespace std;
3 const int N = 1e3 + 10;
4 list<int> a[N];
5 int n,q;
6 signed main() {
7     ios::sync_with_stdio(0);
8     cin.tie(0);cout.tie(0);
9     cin >> n >> q;
10    for (int i = 1;i <= n;++i) {
11        int cnt;cin >> cnt;
12        while (cnt -- )
13        {
14            int x;cin >> x;
15            a[i].push_back(x);
16        }
17    }
18    while (q--) {
19        char opt;cin >> opt;
20        int x,y;
21        if (opt == 'U') {
22            cin >> x >> y;
23            for (auto p : a[y]) a[x].push_back(p);
24            a[y].clear();
25        }
26        if (opt == 'I') {
27            cin >> x >> y;
28            a[x].push_front(y);
29        }
30        if (opt == 'D') {
31            cin >> x >> y;
32            a[x].remove(y);
33        }
34        if (opt == 'Q') {
35            cin >> x;
36            if (a[x].empty()) cout << -1;
37            for (auto p : a[x]) cout << p << ' ';
38            cout << "\n";
39        }
40    }
41 }
```

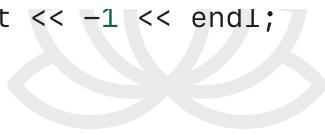


```

1  /*
2  Am I allowed to cry?
3  */
4  #include <bits/stdc++.h>
5  using namespace std;
6  #define ll long long
7  #define F0(x)
8  {freopen(#x".in","r",stdin);freopen(#x".out","w",stdout);}
9  #define pii pair<int,int>
10 #define pll pair<ll,ll>
11 #define mp make_pair
12 const int N = 1e3 + 10;
13 const int dx[4] = {0,0,1,-1};
14 const int dy[4] = {1,-1,0,0};
15 char c[N][N];
16 int n ,m,dis[N][N];
17 signed main() {
18     ios::sync_with_stdio(false);
19     cin.tie(0);cout.tie(0);
20     cin >> n >> m;
21     pii s = mp(0,0),t = mp(0,0);
22     for (int i = 1; i <= n; i++) {
23         for (int j = 1; j <= m; j++) {
24             cin >> c[i][j];
25             if (c[i][j] == 'r') s = mp(i,j);
26             if (c[i][j] == 'a') t = mp(i,j);
27         }
28     }
29     queue <pii> q;
30     q.push(s);
31     memset(dis,0x3f,sizeof(dis));
32     dis[s.first][s.second] = 0;
33     while (!q.empty()) {
34         pii p = q.front();q.pop();
35         int x = p.first,y = p.second;
36         for (int i = 0;i < 4;++i) {
37             int nx = x + dx[i],ny = y + dy[i];
38             if (nx < 1 || nx > n || ny < 1 || ny > m || c[nx][ny] ==
39 '#') continue;
40             int now = 0;
41             if (c[nx][ny] == 'x') now = 2;
42             else now = 1;
43             if (dis[nx][ny] > dis[x][y] + now) {
44                 dis[nx][ny] = dis[x][y] + now;
45                 q.push(mp(nx,ny));
46             }
47         }
48     }
49 }
```



```
4/     if (dis[t.first][t.second] == 0x3f3f3f3f) cout << -1 << endl;
48    else cout << dis[t.first][t.second] << endl;
49    return 0;
50 }
```



trade

```
1 /*
2 Am I allowed to cry?
3 */
4 #include <bits/stdc++.h>
5 using namespace std;
6 #define ll long long
7 #define F0(x)
8 {freopen(#x".in","r",stdin);freopen(#x".out","w",stdout);}
9 #define pii pair<int,int>
10 #define pll pair<ll,ll>
11 #define mp make_pair
12
13 signed main() {
14     ios::sync_with_stdio(false);
15     cin.tie(0);cout.tie(0);
16     int n;
17     cin >> n;
18     queue <int> q;
19     vector <int> ans1,ans2;
20
21     for (int i = 1; i <= n; i++) {
22         q.push(i);
23     }
24     while (q.size() > 1) {
25         ans1.push_back(q.front());q.pop();
26         q.push(q.front());q.pop();
27     }
28     for (auto x : ans1) cout << x << " ";
29     if (q.size()) cout << "\n" << q.front() << "\n";
30     return 0;
31 }
```

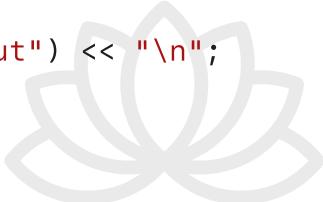


train

```

1 #include <bits/stdc++.h>
2 using namespace std;
3 const int N = 1e3 + 10;
4 int a[N], b[N];
5 bool ins[N];
6 int n, q;
7 signed main() {
8     ios::sync_with_stdio(0);
9     cin.tie(0); cout.tie(0);
10    cin >> n;
11    for (int i = 1; i <= n; ++i) {
12        char c; cin >> c;
13        a[i] = c - '0';
14    }
15    for (int i = 1; i <= n; ++i) {
16        char c; cin >> c;
17        b[i] = c - '0';
18    }
19    vector <int> ans;
20    int pos1 = 1;
21    ans.push_back(1);
22    stack<int> st; st.push(a[1]);
23    int pos2 = 1;
24    while (pos1 <= n && pos2 <= n) {
25        if (!st.empty() && st.top() == b[pos2]) {
26            st.pop();
27            ++pos2;
28            ans.push_back(0);
29        } else {
30            st.push(a[++pos1]);
31            ans.push_back(1);
32        }
33    }
34 // cerr << pos1 << " " << pos2 << "\n";
35    if (pos2 == n + 1) {
36        cout << "Yes\n";
37        for (auto x : ans) cout << (x ? "in" : "out") << "\n";
38    } else {
39        cout << "No\n";
40    }
41 }

```



value

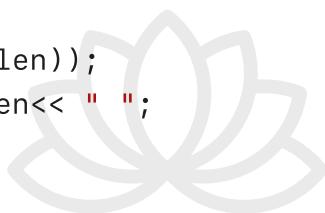
```

1  /*
2  Am I allowed to cry?
3  */
4  #include <bits/stdc++.h>
5  using namespace std;
6  #define ll long long
7  #define F0(x)
8  {freopen(#x".in","r",stdin);freopen(#x".out","w",stdout);}
9  #define pii pair<int,int>
10 #define pll pair<ll,ll>
11 #define mp make_pair
12 const int N = 1e5 + 10;
13 ll a[N],st[N],top,n,L[N],R[N],sum[N];
14
15 signed main() {
16     ios::sync_with_stdio(false);
17     cin.tie(0);cout.tie(0);
18     cin >> n;
19     for (int i = 1;i <= n;++i) cin >> a[i];
20     for (int i = 1;i <= n;++i) {
21         while (top && a[st[top]] >= a[i]) --top;
22         L[i] = st[top] + 1;
23         st[++top] = i;
24     }
25     top = 0;
26     st[top] = n + 1;
27     for (int i = n;i >= 1;--i) {
28         while (top && a[st[top]] >= a[i]) --top;
29         R[i] = st[top] - 1;
30         st[++top] = i;
31     }
32     for (int i = 1;i <= n;++i) sum[i] = sum[i - 1] + a[i];
33     ll ans = 0;
34     for (int i = 1;i <= n;++i) {
35         cerr << L[i] << ' ' << R[i] << '\n';
36         ll val = (sum[R[i]] - sum[L[i] - 1]) * a[i];
37         ans = max(ans,val);
38     }
39     cout << ans << '\n';
40     return 0;
41 }
```



```

1  /*
2  Am I allowed to cry?
3  */
4  #include <bits/stdc++.h>
5  using namespace std;
6  #define ll long long
7  #define F0(x)
8  {freopen(#x".in","r",stdin);freopen(#x".out","w",stdout);}
9  #define pii pair<int,int>
10 #define pll pair<ll,ll>
11 #define mp make_pair
12 #define int ll
13 const int N = 2e5+5;
14 int n,a[N],q,s[N],m;
15 set <int> S;
16
17 signed main() {
18     ios::sync_with_stdio(false);
19     cin.tie(0);cout.tie(0);
20     cin >> m;
21     vector <int> a,v;
22     for (int i = 1;i <= m;++i) {
23         int x;cin >> x;
24         if (!S.count(x)) a.push_back(x);
25         S.insert(x);
26     }
27     sort(a.begin(),a.end());
28     for (int i = 0;i + 1 < a.size();++i) {
29         v.push_back(a[i+1] - a[i]);
30     }
31     sort(v.begin(),v.end());
32     vector <int> s(v.size() + 1,0);
33     for (int i = 0;i < v.size();++i) {
34         s[i+1] = s[i] + v[i];
35         // cerr << s[i+1] << " ";
36     }
37     cin >> q;
38     while (q--) {
39         int l,r;cin >> l >> r;
40         int len = r - l + 1;
41         int pos =
42             distance(v.begin(),lower_bound(v.begin(),v.end(),len));
43         cout << s[pos] + (v.size() - pos + 1) * len << " ";
44     }
45     return 0;
46 }
```



```

1  /*
2  Am I allowed to cry?
3  */
4  #include <bits/stdc++.h>
5  using namespace std;
6  #define ll long long
7  #define F0(x)
8  {freopen(#x".in","r",stdin);freopen(#x".out","w",stdout);}
9  #define pii pair<int,int>
10 #define pll pair<ll,ll>
11 #define mp make_pair
12 const int N = 2e5+5;
13 int a[N],b[N],n,m;
14 signed main() {
15     ios::sync_with_stdio(false);
16     cin.tie(0);cout.tie(0);
17     cin >> n >> m;
18     for (int i = 1;i <= n;++i) cin >> a[i];
19     for (int i = 1;i <= m;++i) cin >> b[i];
20     vector <int> vec;
21     for (int i = 1;i <= n;++i) {
22         if (a[i]) vec.push_back(a[i]);
23     }
24     sort(vec.begin(),vec.end());
25     int pos = 0;
26     for (int i = 1;i <= n;++i) {
27         if (a[i]) a[i] = vec[pos++];
28     }
29     sort(b+1,b+m+1);
30     int p = 1;
31     for (int i = 1;i <= n;++i) {
32         if (!a[i]) a[i] = b[p++];
33     }
34     bool flag = 0;
35     for (int i = 1;i < n;++i) {
36         if (a[i] > a[i+1]) flag = 1;
37     }
38     if (flag) {
39         cout << -1 << "\n";
40         return 0;
41     }
42     for (int i = 1;i <= n;++i) cout << a[i] << " ";
43     return 0;
}

```



```

1  /*
2  Am I allowed to cry?
3  */
4  #include <bits/stdc++.h>
5  using namespace std;
6  #define ll long long
7  #define F0(x)
8  {freopen(#x".in","r",stdin);freopen(#x".out","w",stdout);}
9  #define pii pair<int,int>
10 #define pll pair<ll,ll>
11 #define mp make_pair
12 const int N = 1e5 + 10;
13 vector<int> g;
14 int n;
15 void solve(const vector <int> &g) {
16     vector <int> L,R;
17     int root = g.back();
18     cout << root;
19     int p = 0;
20     for (int i = 0;i + 1< g.size();++i) {
21         if (g[i] < root) L.push_back(g[i]);
22         else R.push_back(g[i]);
23     }
24     if (L.size()) {
25         cout << "<";
26         solve(L);
27         cout << ">";
28     }
29     if (R.size()) {
30         cout << "<";
31         solve(R);
32         cout << ">";
33     }
34 signed main() {
35     ios::sync_with_stdio(false);
36     cin.tie(0);cout.tie(0);
37     cin >> n;
38     for (int i = 1;i <= n;++i) {
39         int x;cin >> x;g.push_back(x);
40     }
41     solve(g);
42     return 0;
43 }
```



harder

```

1  /*
2  Am I allowed to cry?
3  */
4  #include <bits/stdc++.h>
5  using namespace std;
6  #define ll long long
7  #define F0(x)
8  {freopen(#x".in","r",stdin);freopen(#x".out","w",stdout);}
9  #define pii pair<int,int>
10 #define pll pair<ll,ll>
11 #define mp make_pair
12 const int N = 2e5+5;
13 int dis[N],n,m;
14 vector <pii> G[N];
15 bool vis[N];
16 struct node {
17     int pos,dis;
18     friend bool operator < (const node &a,const node &b) {
19         return a.dis > b.dis;
20     }
21 };
22 bool Dijkstra(int s,int t) {
23     memset(dis,0x3f,sizeof(dis));
24     memset(vis,0,sizeof(vis));
25     dis[s] = 0;
26     priority_queue<node> q;
27     q.push({s,0});
28     while (!q.empty()) {
29         node p = q.top();q.pop();
30         int u = p.pos;
31         if (vis[u]) continue;
32         vis[u] = 1;
33         for (auto e : G[u]) {
34             int v = e.first,w = e.second;
35             if (dis[v] > dis[u] + w) {
36                 dis[v] = dis[u] + w;
37                 q.push({v,dis[v]});
38             }
39         }
40     }
41     return dis[t] != 0x3f3f3f3f;
42 }
43 int f[N];int s,t;
44 int dfs(int x) {
45     if (x == t) return 1;
46     cerr << "now :" << x << "\n";
47     if (f[x] != -1) return f[x];
48     int ans = 0;
49     ...

```

```

48     for (auto p : GLX) {
49         cerr << "to :" << p.first << " dis:" << dis[p.first] <<
50         "\n";
51         int v = p.first, w = p.second;
52         if (dis[v] < dis[x]) {
53             ans += dfs(v);
54         }
55     }
56     return f[x] = ans;
57 }
58 signed main() {
59     ios::sync_with_stdio(false);
60     cin.tie(0); cout.tie(0);
61     cin >> n >> m;
62     for (int i = 1; i <= m; i++) {
63         int u, v, w; cin >> u >> v >> w;
64         G[u].push_back({v, w});
65         G[v].push_back({u, w});
66     }
67     cin >> s >> t;
68     if (Dijkstra(t, s) == 0) {
69         cout << -1 << endl;
70     } else {
71         memset(f, -1, sizeof(f));
72         for (int i = 1; i <= n; i++) cerr << "dis[" << i << "]=" <<
73         dis[i] << "\n";
74         cout << dfs(s) << endl;
75     }
76 }

```



最小生成树


```

1  /*
2  Am I allowed to cry?
3  */
4  #include <bits/stdc++.h>
5  using namespace std;
6  #define ll long long
7  #define F0(x)
8  {freopen(#x".in","r",stdin);freopen(#x".out","w",stdout);}
9  #define pii pair<int,int>
10 #define pll pair<ll,ll>
11 #define mp make_pair
12 const int N = 1e5 + 10;
13 int n,vis[N];
14 double dis (pll a,pll b) {
15     return sqrt((a.first - b.first) * (a.first - b.first) +
16 (a.second - b.second) * (a.second - b.second));
17 }
18 double minn[N];
19 pll p[N];
20 signed main() {
21     ios::sync_with_stdio(false);
22     cin.tie(0);cout.tie(0);
23     cin >> n;
24     for (int i = 1;i <= n;++i) {
25         cin >> p[i].first >> p[i].second;
26         minn[i] = 1e18;
27     }
28     minn[1] = 0;minn[0] = 1e18;
29     double ans = 0;
30     for (int i = 1;i <= n;++i) {
31         int idx = 0;
32         for (int j = 1;j <= n;++j) {
33             if (!vis[j] && minn[j] < minn[idx]) idx = j;
34         }
35         ans += minn[idx];
36         vis[idx] = 1;
37         for (int j = 1;j <= n;++j) {
38             if (!vis[j]) {
39                 double d = dis(p[idx],p[j]);
40                 if (d < minn[j]) minn[j] = d;
41             }
42         }
43         cout << fixed << setprecision(2) << ans << endl;
44     }
45 }
```



