```
const int MAXN = 1010;
     const int SQRTN = 35;
int v[MAXN];
 2
 3
     int blocks[SQRTN + 10];
 4
 5
     int n;
 6
7
     void build sqrt() {
 8
          SET(blocks);
          FORO(i,n) {
 9
               int b = i/SQRTN;
if(blocks[b]==-1 || v[i]<v[blocks[b]]) {</pre>
10
11
                    blocks[b] = i;
12
13
               }
14
          }
15
     }
16
17
     void update sqrt(int x, int vx) {
18
          v[x] = vx;
          int b = x/SQRTN;
19
20
          if(vx < v[blocks[b]]) blocks[b] = x;</pre>
21
     }
22
23
     int query sqrt(int x, int y) {
24
          int ans;
25
          int minv = INF;
26
          int i = x;
27
          while(i<=y && i%SQRTN) {</pre>
28
               if(v[i]<minv)</pre>
29
30
31
32
33
34
                    minv = v[i];
                    ans = i;
               }
               ++i;
          while(i+SQRTN-1 <= y) {</pre>
35
               int b = i/SQRTN;
36
               if(v[blocks[b]] < minv) {</pre>
37
                    minv = v[blocks[b]];
38
                    ans = blocks[b];
39
40
               i += SQRTN;
41
42
          while(i<=y) {</pre>
43
               if(v[i]<minv) {</pre>
44
                    minv = v[i];
45
                    ans = i;
46
               }
47
               ++i;
48
49
          return ans;
50
     }
51
52
     int main() {
53
          NSYNC;
54
          n = 1000;
55
          set<int> st;
56
57
          srand(time(NULL));
          FORO(i,n) {
58
               int x;
59
               while(true) {
60
                    x = rand()%1000000;
61
                    if(!st.count(x)) break;
62
63
               st.insert(x);
64
               v[i] = x;
65
66
          build sqrt();
67
          int q = 100;
          while(q--) {
68
69
               int x = rand()%n;
70
               int y = rand()%n;
```

/home/gandrade/Manual-da-Sarrada/drazy/sqrt_dec.cpp
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```
71
72
73
74
                    if(x>y) swap(x,y);
                   int minv = INF;
int ans;
FOR(i,x,y+1) {
    if(v[i] < minv) {</pre>
75
76
77
                               minv = v[i];
ans = i;
78
79
80
81
                         }
                   82
                         DBG(ans);
                         DBG(query sqrt(x,y));
cout << "WA\n";
83
84
85
                         exit(0);
86
                   }
87
             cout << "Accepted\n";
return 0;</pre>
88
89
90
       }
91
```