

Submission

ID	DATE	PROBLEM	STATUS	CPU	LANG
	TEST CASES				
8199587	04:37:33	String Multimatching	✓ Accepted	0.42 s	C++
	✓✓				

Compiler output

```
./stringmultimatching.cpp: In member function 'void autoac::add(std::string, int)':
./stringmultimatching.cpp:20:29: warning: narrowing conversion of 's.std::__cxx11::basic_string<char>::size
 20 |     no[u].push_back({i, s.size()});
    |                      ~~~~~^~
```

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FILENAME	FILESIZE	SHA-1 SUM	
stringmultimatching.cpp	1476 bytes	385de0e3e5237881d95d40ba3b4d947359c88848	download

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stringmultimatching.cpp

```
1 #include <bits/stdc++.h>
2 using namespace std;
3
4 const int mxN=1e5, mxM=2e5;
5 int n;
6 string s;
7
8 struct autoac {
9     int sl[mxN+1], ol[mxN+1], sz=1, c[mxN+1][256], d[mxN+1][256];
10    vector<int> oc[mxN];
11    vector<array<int, 2>> no[mxN+1];
12    void add(string s, int i) {
13        int u=0;
14        for(char a : s) {
15            if(!c[u][a])
16                c[u][a]=sz++;
17            u=c[u][a];
18        }
19        ol[u]=u;
20        no[u].push_back({i, s.size()});
21    }
22    void ac() {
23        for(queue<int> q({0}); q.size(); q.pop()) {
24            int u=q.front();
25            if(!ol[u])
26                ol[u]=ol[sl[u]];
27            for(int a=0; a<256; ++a) {
28                int v=c[u][a], w=sl[u];
29                if(v) {
30                    sl[v]=d[w][a];
31                    q.push(v);
32                }
33            }
34        }
35    }
```



```
32     }
33     d[u][a]=v?v:d[w][a];
34 }
35 }
36 }
37 int feed(int u, char a, int i) {
38     u=d[u][a];
39     for(int v=ol[u]; v; v=ol[sl[v]])
40         for(array<int, 2> b : no[v])
41             oc[b[0]].push_back(i-b[1]+1);
42     return u;
43 }
44 } ac;
45
46 int main() {
47     ios_base::sync_with_stdio(0);
48     cin.tie(0);
49
50     while(cin >> n) {
51         getline(cin, s);
52         for(int i=0; i<n; ++i) {
53             getline(cin, s);
54             ac.add(s, i);
55         }
56         ac.ac();
57         getline(cin, s);
58         int u=0;
59         for(int i=0; i<s.size(); ++i)
60             u=ac.feed(u, s[i], i);
61         for(int i=0; i<n; ++i) {
62             for(int j : ac.oc[i])
63                 cout << j << " ";
64             cout << "\n";
65             ac.oc[i].clear();
66         }
67         memset(ac.sl, 0, 4*ac.sz);
68         memset(ac.ol, 0, 4*ac.sz);
69         memset(ac.c, 0, sizeof(ac.c[0])*ac.sz);
70         memset(ac.d, 0, sizeof(ac.d[0]));
71         for(int i=0; i<ac.sz; ++i)
72             ac.no[i].clear();
73         ac.sz=1;
74     }
75 }
```