

```

1 #include <bits/stdc++.h>
2 using namespace std;
3
4 int main()
5 {
6     string x, y;
7     cin >> x >> y;
8     int m = x.size() + 1, n = y.size() + 1;
9     vector<vector<string>> b(m, vector<string>(n, " "));
10    vector<vector<int>> c(m, vector<int>(n, 0));
11
12    for (int i = 1; i < m; i++)
13    {
14        c[i][0] = 0;
15    }
16    for (int j = 0; j < n; j++)
17    {
18        c[0][j] = 0;
19    }
20    for (int i = 1; i < m; i++)
21    {
22        for (int j = 1; j < n; j++)
23        {
24            if (x[i - 1] == y[j - 1])
25            {
26                c[i][j] = c[i - 1][j - 1] + 1;
27                b[i][j] = "\\";
28                // Taking the value From left Diagonal cell
29            }
30            else if (c[i - 1][j] >= c[i][j - 1])
31            {
32                c[i][j] = c[i - 1][j];
33                b[i][j] = "|";
34                // Taking the value From Upper cell
35            }
36            else
37            {
38                c[i][j] = c[i][j - 1];
39                b[i][j] = "->";
40                // Taking the value From Left Side cell
41            }
42        }
43    }
44
45    for (int i = 0; i < c.size(); i++)
46    {
47        for (int u : c[i])
48        {
49            cout << u << ' ';
50        }
51        cout << endl;
52    }
53
54    cout << endl;
55
56    for (int i = 0; i < b.size(); i++)
57    {
58        for (string u : b[i])
59        {
60            cout << u << ' ';
61        }
62        cout << endl;
63    }
64
65    cout << "Length of LCS is : " << c[m - 1][n - 1] << endl;
66
67    return 0;
68 }
69

```

Output :

```
SAKIB Performance Test
cd "c:\PU Projects\PUC Courses\4th Semester\A
cs }
MZJAWXU
XMJYAUZ
0 0 0 0 0 0 0 0
0 0 1 1 1 1 1 1
0 0 1 1 1 1 1 2
0 0 1 2 2 2 2 2
0 0 1 2 2 3 3 3
0 0 1 2 2 3 3 3
0 1 1 2 2 3 3 3
0 1 1 2 2 3 4 4

| \ -> -> -> -> ->
| | | | | | \
| | \ -> -> -> |
| | | | \ -> ->
| | | | | | |
\ | | | | | |
| | | | | \ ->
Length of LCS is : 4
SAKIB Performance Test
```