

```
//implementation of lcs
#include<bits/stdc++.h>

int max(int a, int b);

int lcs( char *X, char *Y, int m, int n )
{
    if (m == 0 || n == 0)
        return 0;
    if (X[m-1] == Y[n-1])
        return 1 + lcs(X, Y, m-1, n-1);
    else
        return max(lcs(X, Y, m, n-1), lcs(X, Y, m-1, n));
}

int max(int a, int b)
{
    return (a > b)? a : b;
}

int main()
{
    char X[] = "AGGTAB";
    char Y[] = "GXTXAYB";

    int m = strlen(X);
    int n = strlen(Y);

    printf("Length of LCS is %d", lcs( X, Y, m, n ) );

    return 0;
}
```

Output:

```
Length of LCS is 4
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Process exited after 0.07252 seconds with return value 0
Press any key to continue . . .
```