

```

class Solution {
public:
int match(char A, char B){
    return A == B;
}
int max_(int a, int b, int c){
    return max(max(a, b), c);
}
int LCS(string text1, string text2, vector<vector<int>>& grid){
    for (int i = 1; i < grid.size(); i++){
        for (int j = 1; j < grid[0].size(); j++){

            int m = match(text1[i - 1], text2[j - 1]);

            if (grid[i - 1][j] >= grid[i][j - 1] && (grid[i - 1][j] >= grid[i - 1][j - 1] + m)){
                grid[i][j] = grid[i - 1][j];
            }
            else if (grid[i][j - 1] >= grid[i - 1][j] && (grid[i][j - 1] >= grid[i - 1][j - 1] + m)){
                grid[i][j] = grid[i][j - 1];
            }
            else if ((grid[i - 1][j - 1] + m) >= grid[i - 1][j] && (grid[i - 1][j - 1] + m) >= grid[i][j - 1]){
                grid[i][j] = grid[i - 1][j - 1] + m;
            }
        }
    }
    return grid[text1.size()][text1.size()];
}
string reverse(string s){
    for (int i = 0; i < s.size() / 2; i++){
        swap(s[i], s[s.size() - 1 - i]);
    }
    return s;
}
int longestPalindromeSubseq(string s) {
    vector<vector<int>> grid(s.size() + 1, vector<int>(s.size() + 1, {0}));

    return LCS(s, reverse(s), grid);
}
};

```