import java.util.Arrays;

public class LCS1 {

public static int lcs\_dp(String x, String y) {

int m = x.length(), n = y.length();

int[][] dp = new int[m + 1][n + 1];

for (int i = 1; i <= m; i++) {

for (int j = 1; j <= n; j++) {

if (x.charAt(i - 1) == y.charAt(j - 1)) {

dp[i][j] = 1 + dp[i - 1][j - 1];

} else {

dp[i][j] = Math.max(dp[i - 1][j], dp[i][j - 1]);

}

}

}

return dp[m][n];

}

public static void main(String[] args) {

String x = "ABCBDAB";

String y = "BDCAB";

int length = lcs\_dp(x, y);

System.out.println("Length of LCS: " + length);

}

}