InsertionsAndDeleToConvertString

1)take string s1=XYZ and s2=YBDE to convert s1 to s2 , find the common letter of s1 and s2.

2) So, to convert s1 to s2 we need to remove the remaining elements of s1. So, x = s1.length -LCS

3)Secondly, we need to insert other letters of s2.y= S2.length() – LCS.

4)So now add x+y.

5)Answer = deletion of elements in s1 and adding of remaining elements in s2.

public class StepsReqToConvertString {

public static void main(String args[])

{

String s1="XYZ";

String s2="YBDE";

int LCSlength=LCS(s1,s2);

int NumOfDeletions=s1.length()-LCSlength;

int NumOfInsertions=s2.length()-LCSlength;

System.out.println(NumOfDeletions+NumOfInsertions);

}

public static int LCS(String s1,String s2)

{

int n1=s1.length();

int n2=s2.length();

int[][] dp=new int[n1+1][n2+1];

for(int i=0 ;i <n1+1 ;i++)

{

for(int j=0; j<n2+1 ;j++)

{

if(i==0 || j==0 )

{

dp[i][j]=0;

}

else if(s1.charAt(i-1)==s2.charAt(j-1))

{

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

}

else

{

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

}

}

}

return dp[n1][n2];

}

}