
```

Input: S1 , S2
/* Parameters :                               */
/*   s1,s2 :   strings.                       */
/* Return :                                     */
/*   ED, alignment                             */
1 begin
2   n ←len(s1) ; m ←len(s2)
3   define dist_mat : array with first row 0 to m and first column 0 to n
4   define alignment : empty array
5   if (s1 == s2) then
6     return {"ed" : 0 , "alignment" : "match" for all letter };
7   else
8     for j ←1 to m+1 do
9       for i ←1 to n+1 do
10        if s1[i-1] == s2[j-1] then
11          return {"ed" : 0 , "alignment" : "match" for all letter };
12        else
13          dist_mat[j,i] = 1+min {
14            dist_mat[j,i-1] // "remove" letter
15            dist_mat[j-1,i] // "add" letter
16            dist_mat[j-1,i-1] // "substitute" letter
17          }
18   alignment ←retrieve alignment by backtracking dist_mat;
19   return {"ed" : ed , "alignment" : alignment };

```
