

```

1: #include<stdio.h>
2:
3: int size(char A[]){
4:     int c=0,i=0;
5:     while(A[i]!='\0'){
6:         i=i+1;
7:         c=c+1;
8:     }
9:     return c;
10:
11: }
12: int min(int a,int b,int c){
13:     if(a<b&&a<c)
14:         return a;
15:     if(b<c&&b<a)
16:         return b;
17:     return c;
18: }
19: void print(char A[]){
20:     int i=0;
21:     printf("      ");
22:     while(A[i]!='\0'){
23:         printf("|_ %c_",A[i]);
24:         i=i+1;
25:     }
26:     printf("|_._|");
27: }
28: int ED(char A[],char B[]){
29:     int m=size(A);
30:     int n=size(B);
31:     int ED[m+1][n+1];
32:     for(int r=0;r<=m;++r)
33:         ED[r][n]=m-r;
34:     for(int c=0;c<=m;++c)
35:         ED[m][c]=n-c;
36:     for(int c=m-1;c>=0;--c){
37:         for(int r=n-1;r>=0;--r){
38:             if(A[r]==B[c])
39:                 ED[r][c]=ED[r+1][c+1];
40:             else
41:                 ED[r][c]=1+min(ED[r+1][c+1],ED[r+1][c],ED[r][c+1]);
42:
43:         }
44:
45:     }
46:     print(B);
47:     printf("\n\n");
48:     for(int i=0;i<=m;++i)
49:     {
50:
51:         printf("|_ %c_| ",A[i]);
52:         for(int j=0;j<=n;++j)
53:             printf("|_ %d_",ED[i][j]);
54:         printf("|");

```

```

55:     printf("\n");
56: }
57: int i=0,j=0;
58: printf("\nTransforming %s to %s: ",B,A);
59: while(i<=m&& j<=n){
60:     if(A[i]==B[j]){
61:         i++;j++;
62:     }
63:     else{
64:         int k=min(ED[i+1][j+1],ED[i+1][j],ED[i][j+1]);
65:         if(k==ED[i+1][j])
66:         {
67:             printf("\n Deleting: %c at position: %d in %s--->%s ",A[i],
i+1,A,A+i+1);
68:             i++;
69:         }
70:         else
71:         {
72:             printf("\n Inserting: %c at position: %d ",B[j],j+1);
73:             j++;
74:         }
75:     }
76: }
77: return ED[0][0];
78:
79: }
80: int main(){
81:     char B[]="secret";
82:     char A[]="bisect";
83:     int p=ED(A,B);
84:     printf("\n \nSo Number of minimum edit that are require: %d",p);
85: }

```