

EditDistance.java

```
1 public class EditDistance {
2     public static int min(int x, int y, int z) {
3         if (x<y && x<z) return x;
4         if (y<x && y<z) return y;
5         else return z;
6     }
7
8     public static int editDist(String s1, String s2, int m, int n){
9         // If first string is empty, the only option is
10        // to insert all characters of second string into first
11        if (m == 0) return n;
12
13        // If second string is empty, the only option is
14        // to remove all characters of first string
15        if (n == 0) return m;
16
17        // If last characters of two strings are same, do nothing.
18        // Ignore last characters, get count for remaining strings.
19        if (s1.charAt(m-1) == s2.charAt(n-1))
20            return editDist(s1, s2, m-1, n-1);
21
22        // If last characters are not same, consider all three
23        // operations on last character of first string, recursively
24        // compute minimum cost for all three operations
25        // and take minimum of three values.
26        return 1 + min ( editDist(s1, s2, m, n-1), // Insert
27                        editDist(s1, s2, m-1, n),   // Remove
28                        editDist(s1, s2, m-1, n-1));
29    }
30
31    public static void main(String args[]) {
32        String s1 = "sunday";
33        String s2 = "saturday";
34        System.out.println( editDist(s1, s2, s1.length(),
35                                   s2.length()));
36    }
```