PROGRAM 3

Minimum number of operations required to transform an inputted string1 to another string2

AIM

Write a program find minimum number of operations required to transform an input string 1 to another string2

PROGRAM

```
# A Naive recursive Python program to fin minimum number
# operations to convert str1 to str2
def editDistance(str1, str2, m , n):

    # If first string is empty, the only option is to
    # insert all characters of second string into first
    if m==0:
         return n

    # If second string is empty, the only option is to
    # remove all characters of first string
    if n==0:
        return m

    # If last characters of two strings are same, nothing
    # much to do. Ignore last characters and get count for
    # remaining strings.
    if str1[m-1]==str2[n-1]:
        return editDistance(str1,str2,m-1,n-1)

    # If last characters are not same, consider all three
    # operations on last character of first string, recursively
    # compute minimum cost for all three operations and take
    # minimum of three values.
    return 1 + min(editDistance(str1, str2, m, n-1),    # Insert
                   editDistance(str1, str2, m-1, n),    # Remove
                   editDistance(str1, str2, m-1, n-1)    # Replace
                   )

# Driver program to test the above function
str1 = "sunday"
str2 = "saturday"
print editDistance(str1, str2, len(str1), len(str2))
```

RESULT

The program is successfully implemented and required output is obtained.

OUTPUT

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