

# Algorithm Sample

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## How to write Algorithm in LaTeX

Use packages 'algorithm' and 'algpseudocode'. AN example is given below:

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**Algorithm 1** Recursive edit-distance

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```
procedure EDIT-DISTANCE( $str1, str2, m, n$ )  
     $\triangleright$  number of operations to convert  $str1$  into  $str2$   
    if  $m = 0$  then  
        return  $n$   $\triangleright$  Insert all  $n$  characters of  $str2$   
    end if  
    if  $n = 0$  then  
        return  $m$   $\triangleright$  Delete all  $m$  character of  $str1$   
    end if  
    if  $str1[m] = str2[m]$  then  
        return EDIT-DISTANCE( $str1, str2, m - 1, n - 1$ )  $\triangleright$  copy  
    end if  
    return  $1 + \min\{\text{EDIT-DISTANCE}(str1, str2, m - 1, n - 1),$   $\triangleright$  replace  
        EDIT-DISTANCE( $str1, str2, m - 1, n$ ),  $\triangleright$  delete  $str1[m]$   
        EDIT-DISTANCE( $str1, str2, m, n - 1\}$   $\triangleright$  insert  $str2[n]$   
end procedure
```

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See the TeX file to know how the above algorithm is produced. Read the documentation of the package 'algorithm' for more details.