

1.5 One Away  $\rightarrow$  There are three types of edits: insert, replace, delete. Determine if a ~~character~~ string is one char away from another (or zero).

Parameters  $\rightarrow$  (String: str1, String: str2)

Return  $\rightarrow$  True if  $\leq 1$  operations away

Simplest problem:

IN  $\rightarrow$  "a" "a", "a" "b", "" "a", "a", "a"

OUT  $\rightarrow$  True

IN  $\rightarrow$  "ab" "d"

OUT  $\rightarrow$  False

IN  $\rightarrow$  "ac" "ab"

Edge Cases

Pattens

- Adding is same as removing from other string

- String length must be between  $-1 \leq \text{len}(str) \leq 1$

Solution

- if lengths same  $\rightarrow$  replace  
if different check remove of larger.

Complexity

$O(n)$   $O(1)$  space

Code

def oneAway(str1, str2):  $\text{math.abs()}$

if (len(str1) - len(str2)):

return False

largest = str1, smallest = str2

if (len(str1) == len(str2)):

isOne = True

for elem, elem2 in (str1, str2):

if elem != elem2 and isOne:

isOne = False

elif elem == elem2:

return isOne

if (len(str1) < len(str2)):

largest = str2

"pale" pale  
"ple" pal

i=0, j=0  
while i < len(largest) and j < len(smallest):  
if largest[i] != smallest[j]: is found = false

if largest[i+1] == smallest[j]: is found = true

else return false

i+=1

j+=1

return True