Permutes

Example: Design an algorithm to print all permutations of a string. For simplicity, assume all characters are unique.

Example

Asd

Ads

Sad

Sda

Das

Dsa

Bruteforce

def perm(to\_permute):

perumtes("", to\_permute)

def perumtes(base,extra):

if extra == "":

print(base)

return None

for ith in range(len(extra)):

perumtes(base+extra[ith], extra[0:ith]+extra[ith+1:])

Insertion

def perm(to\_permute):

current\_perms=[to\_permute[0]]

for ith in range(1,len(to\_permute)):

new\_perms =list()

for cur\_perm in current\_perms:

new\_perms.extend(permute(cur\_perm, to\_permute[ith]))

current\_perms = new\_perms[:]

return current\_perms

def permute(base, ch):

base\_perms= list()

for ith in range(len(base)+1):

base\_perms.append(base[0:ith]+ch+base[ith:])

return base\_perms