① Pair

C++ → std:: pair <key, value>

java fx. util. Pair

② struct x x

③ Tuples

→ data structure consisting of multiple parts.

→ can hold multiple values & these values may or may not be related to each other

Eg: [riya, 123, "2 #"]

JavaTuples → Java library

→ Java Tuples allows maximum of 10 tuples.

Q Print the subsequences of a string. (recursion)

"abc"

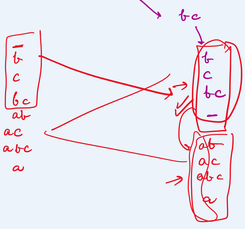
→ a
→ b
→ c
→ ac
→ ab
→ abc
→ —

① Recursive call →
② base case → "" → ""
③ self work → a, a

abc → Bigger problem

→ subsequence (smaller problem)

bc

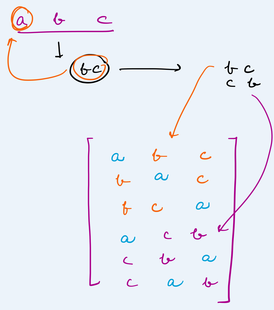


Q Permutations

given a string, find its permutations

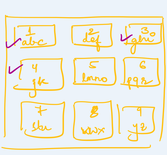
S → abc

output → [abc, abb, cab, cba, bac, bca]



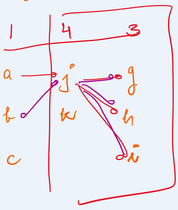
Q Keypad combinations

"143"

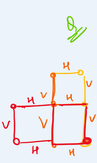


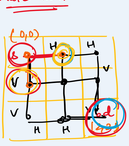
ajg
ajh
aji
gj
bjg

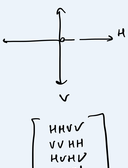
cki
cji
ckh



Q Maze Path







HHVV
VVHH
HVHV
VHVH

H HVV
H VHV
H VVH

V HHV
V VHH
V HVH

→ final ans

2 smaller problems