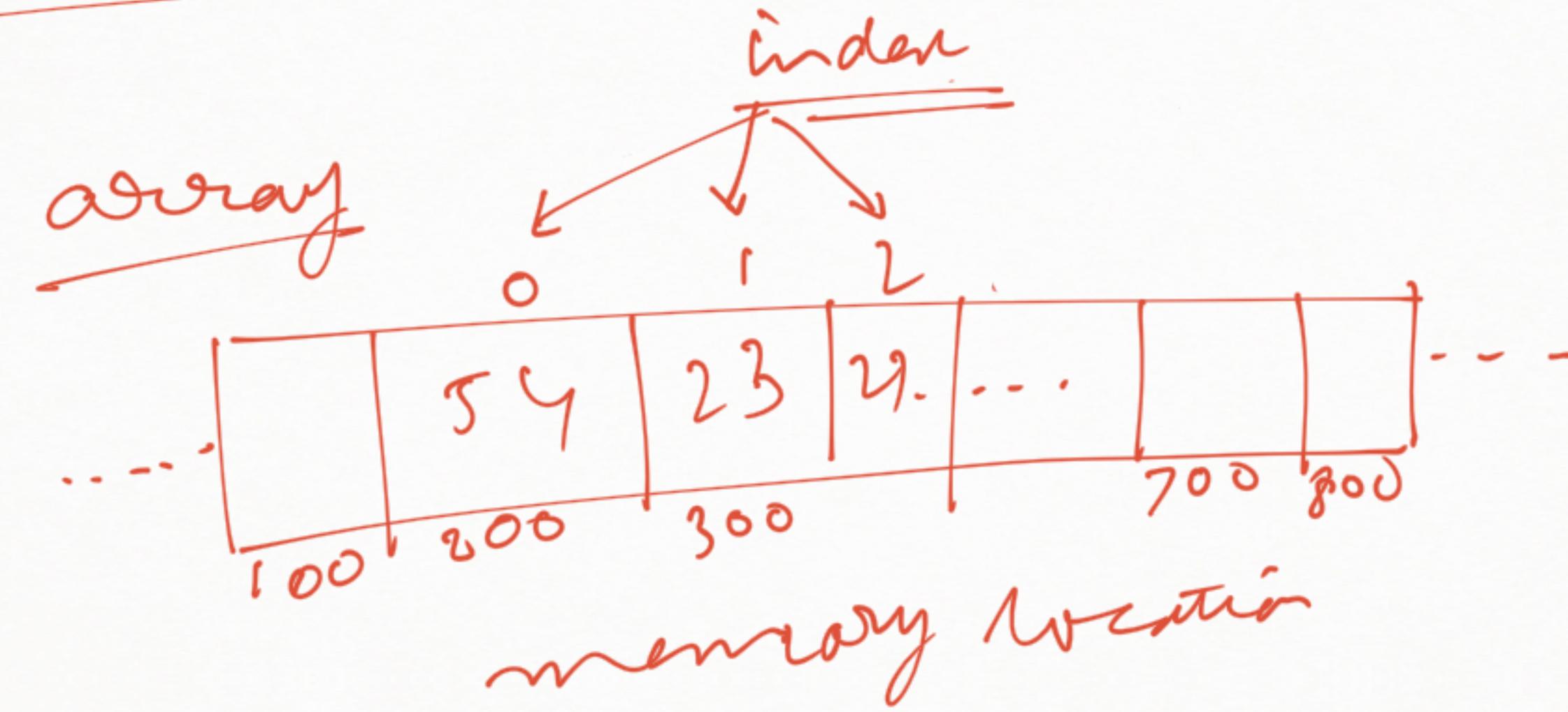


Data Structures



2) Linear Data S

2) Non-Linear DS

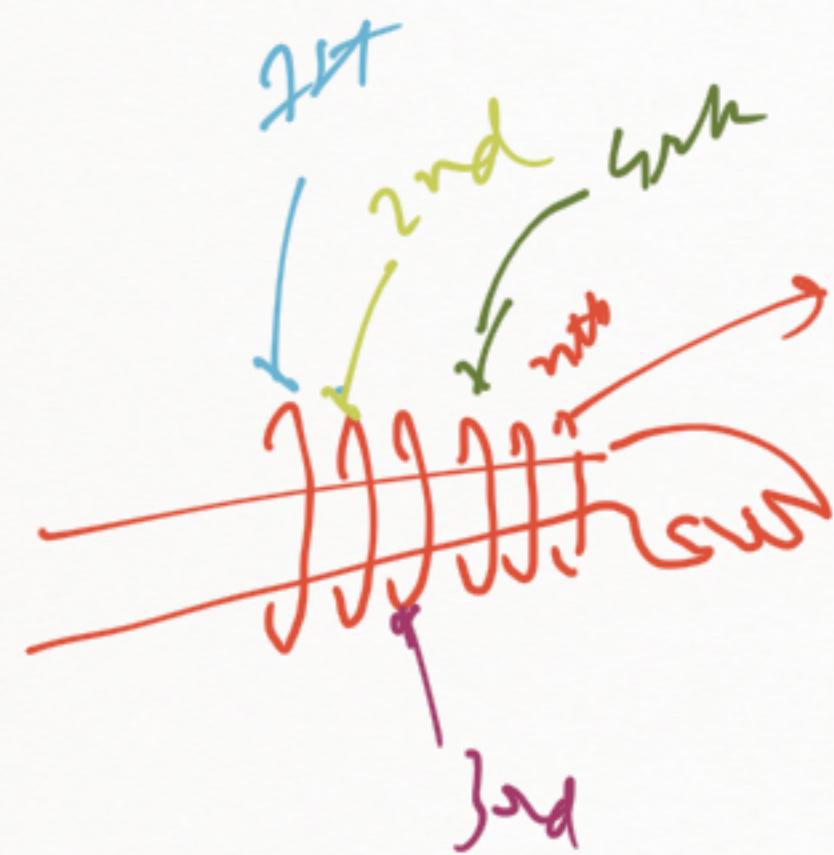
Linear DS → 1) array
2) stack
3) queue
4) linked list

Non Linear DS → 1) Trees

2) Graphs

- i) sequence order
 - ii) easy infer.

a = [1, 2, 3, 4]



Stack

S-1

LIFO

in

out

First

Last

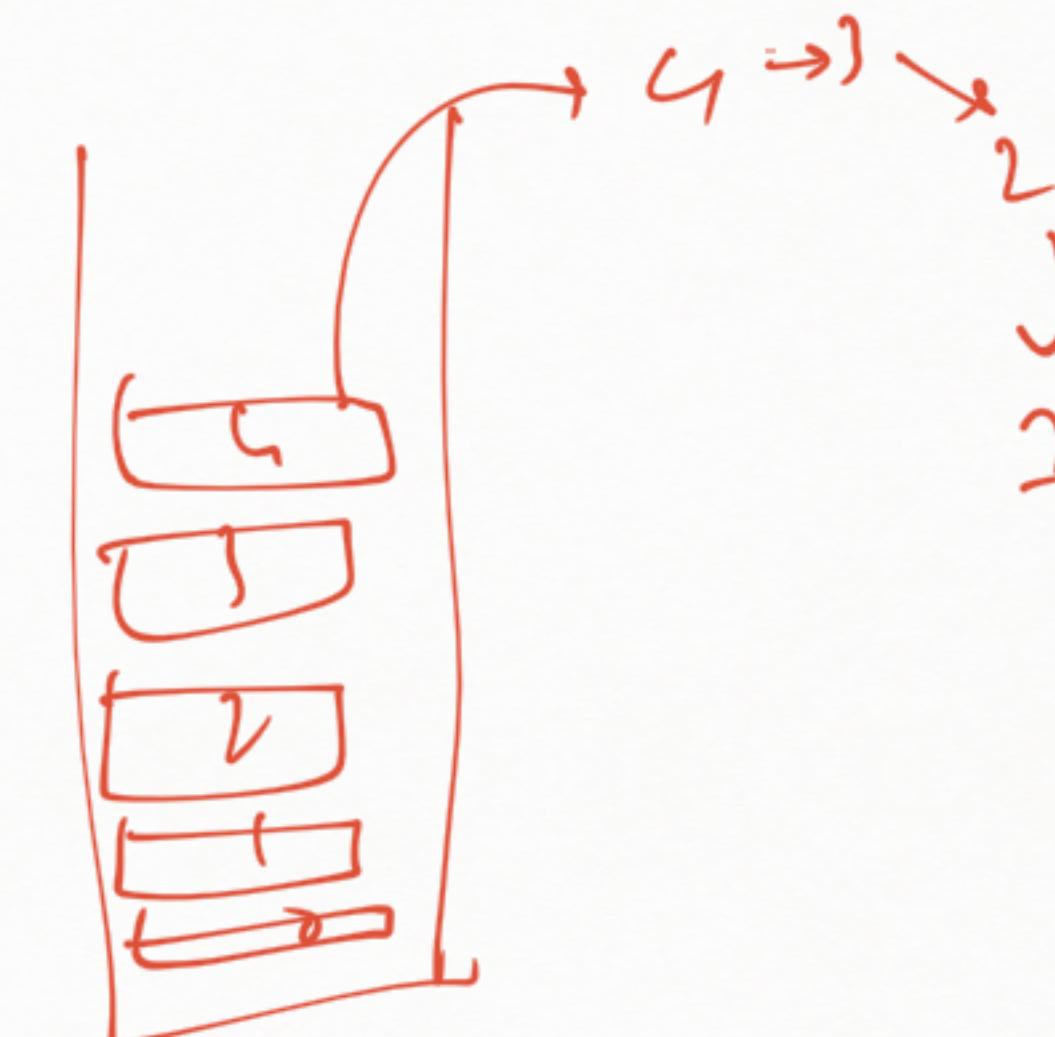
1st

2nd

3rd

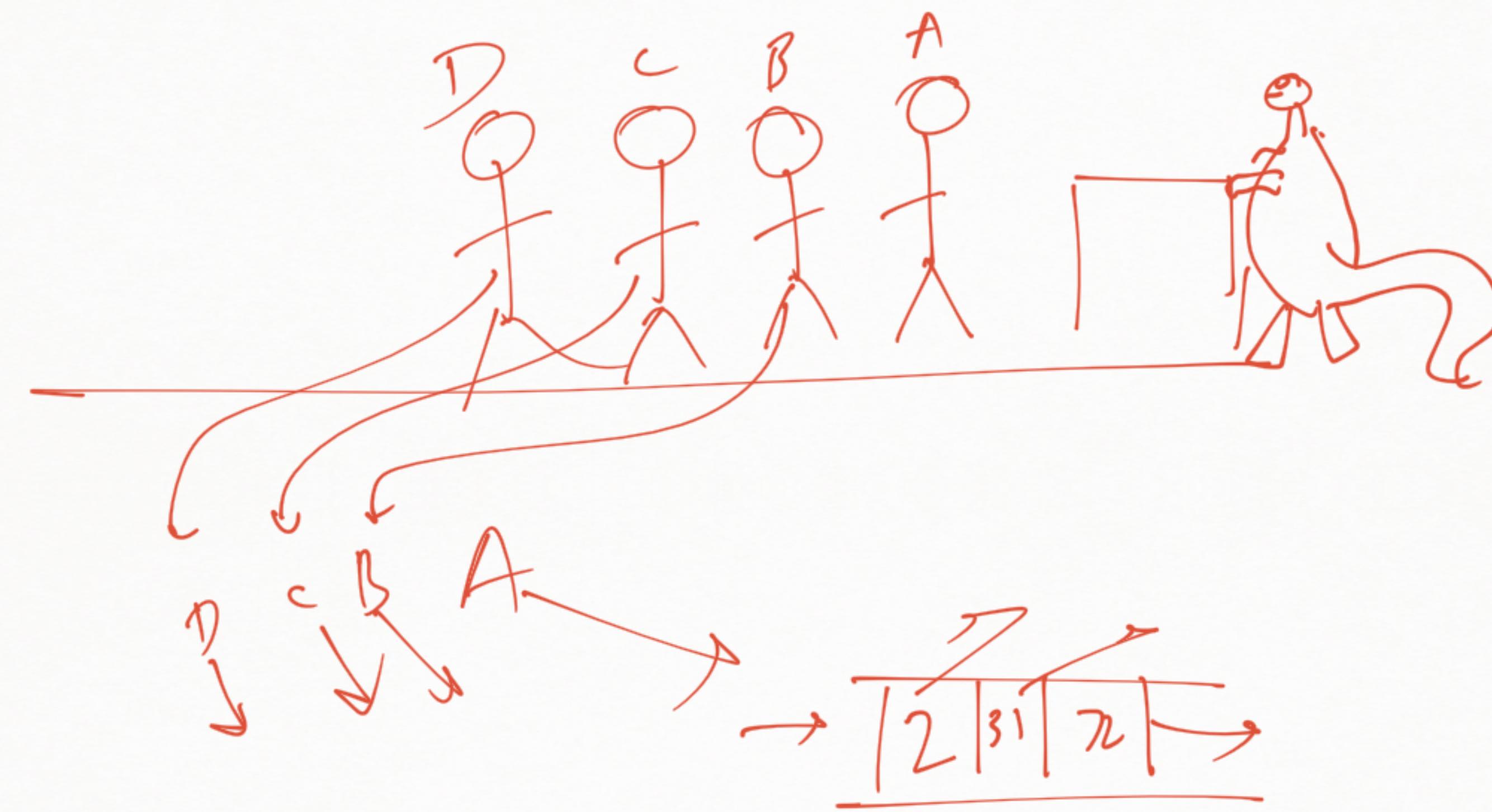
4th

5th

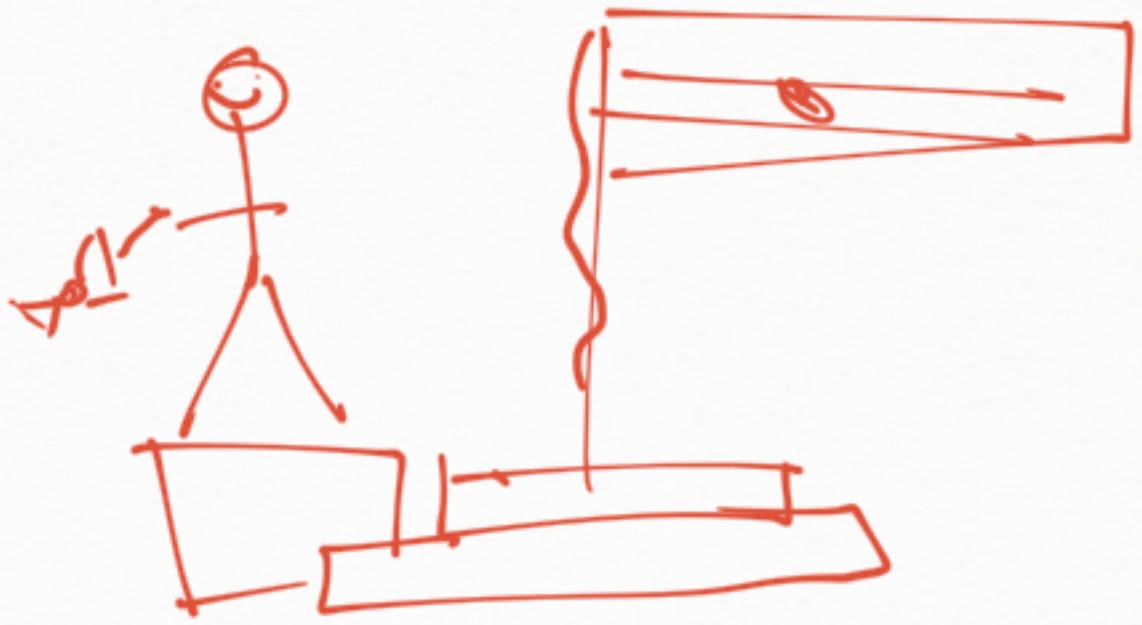
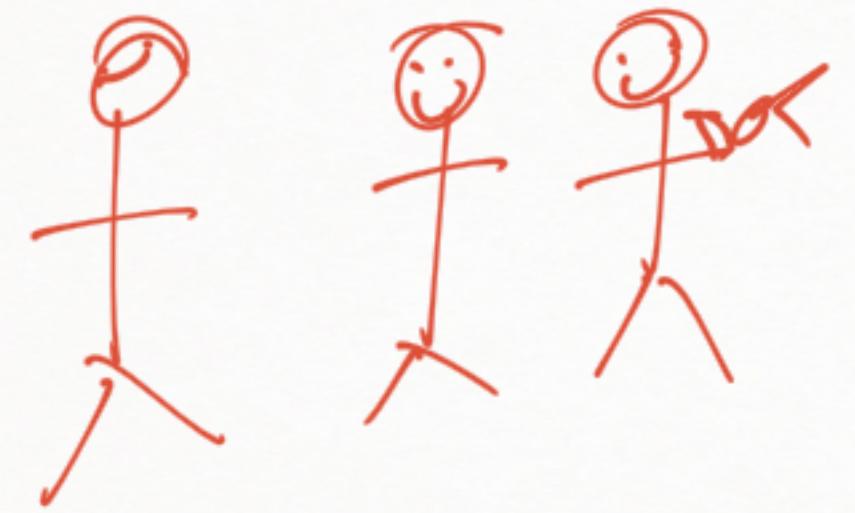


Queue

FIFO \rightarrow First in First Out

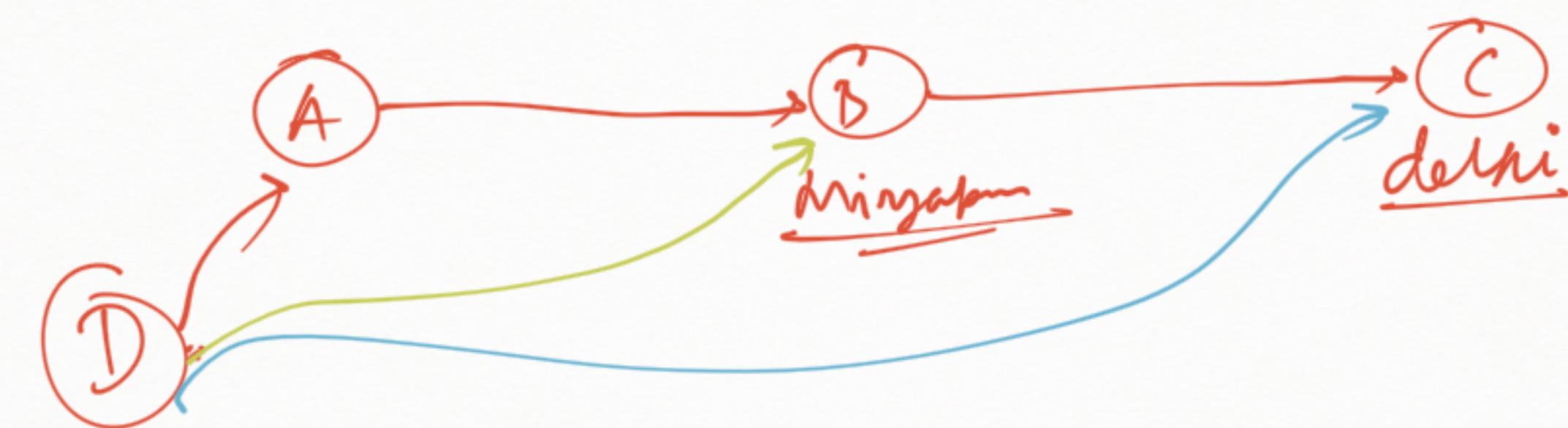
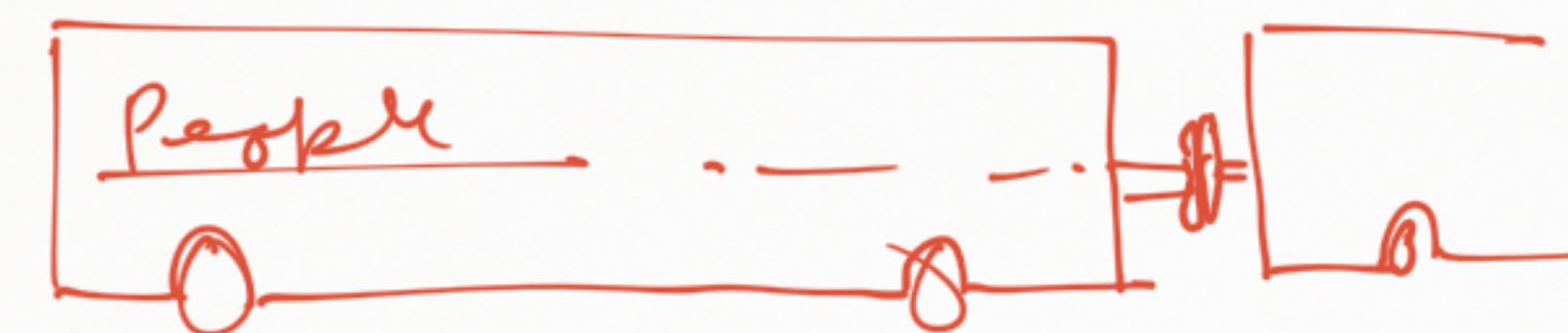
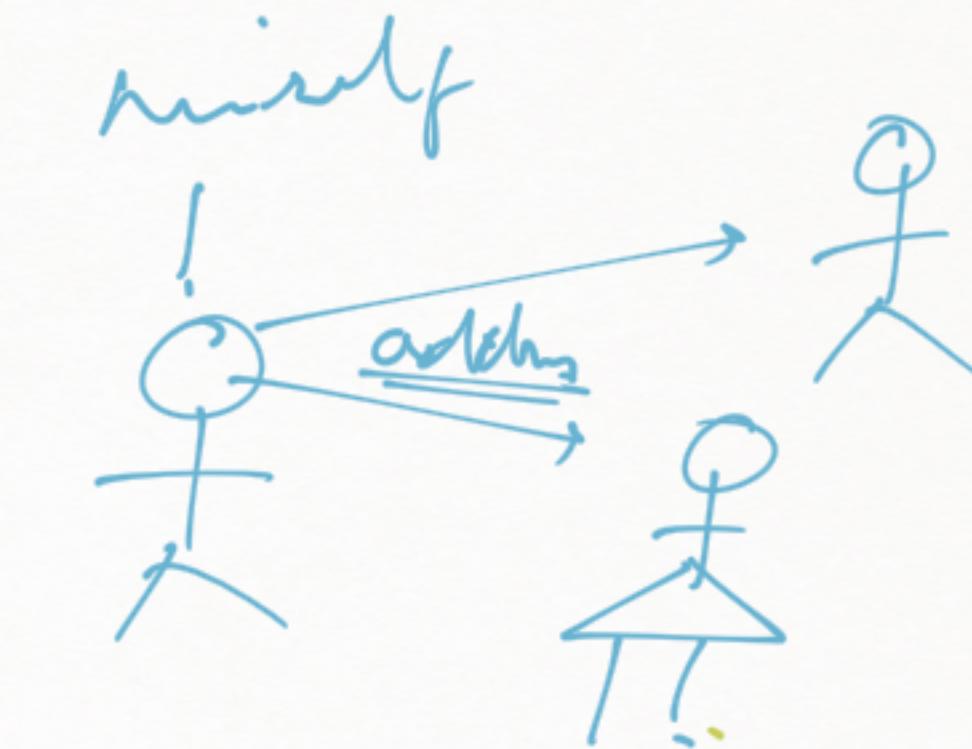
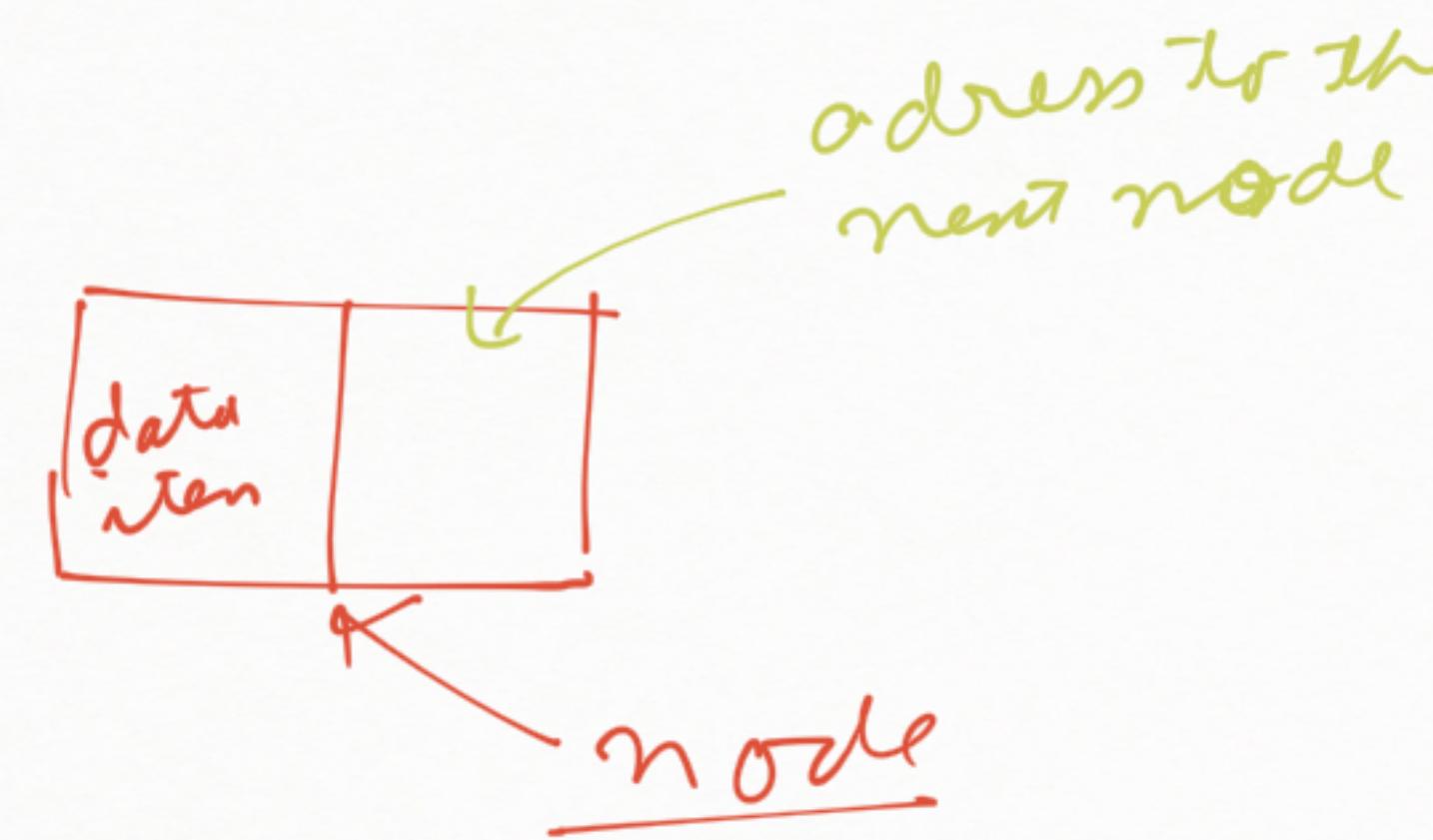


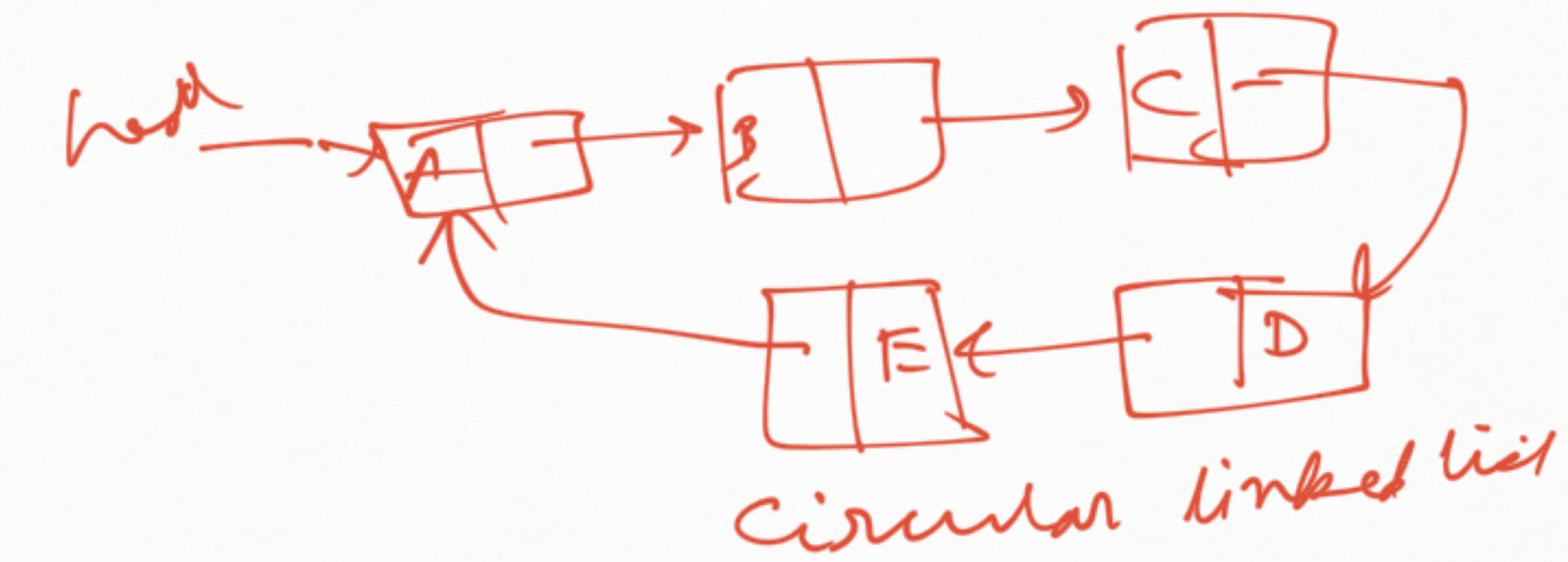
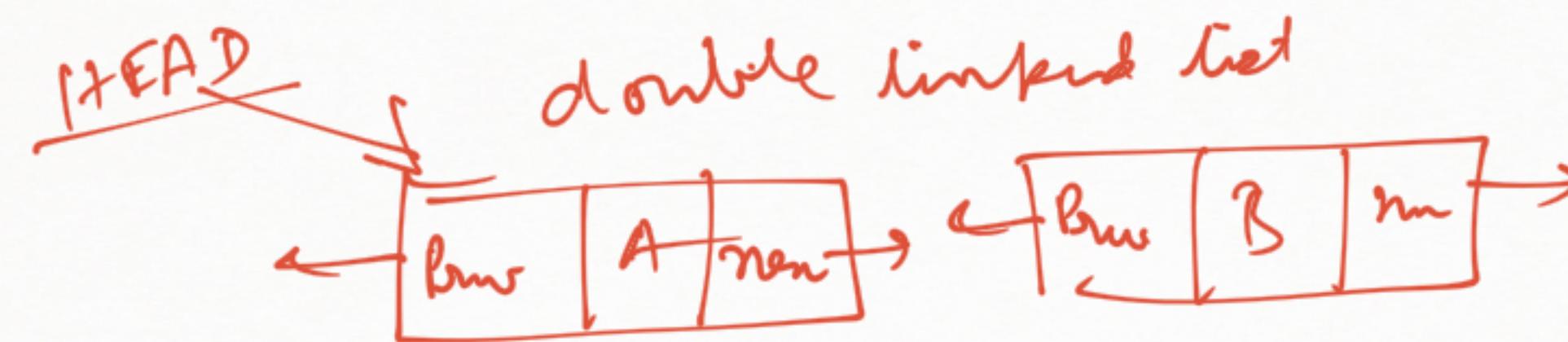
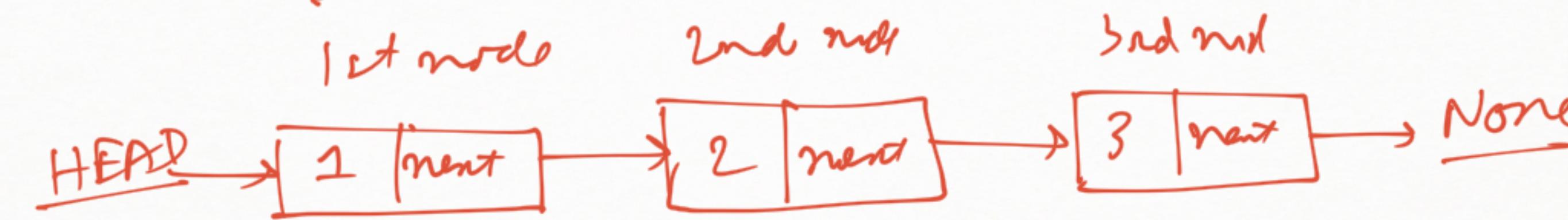
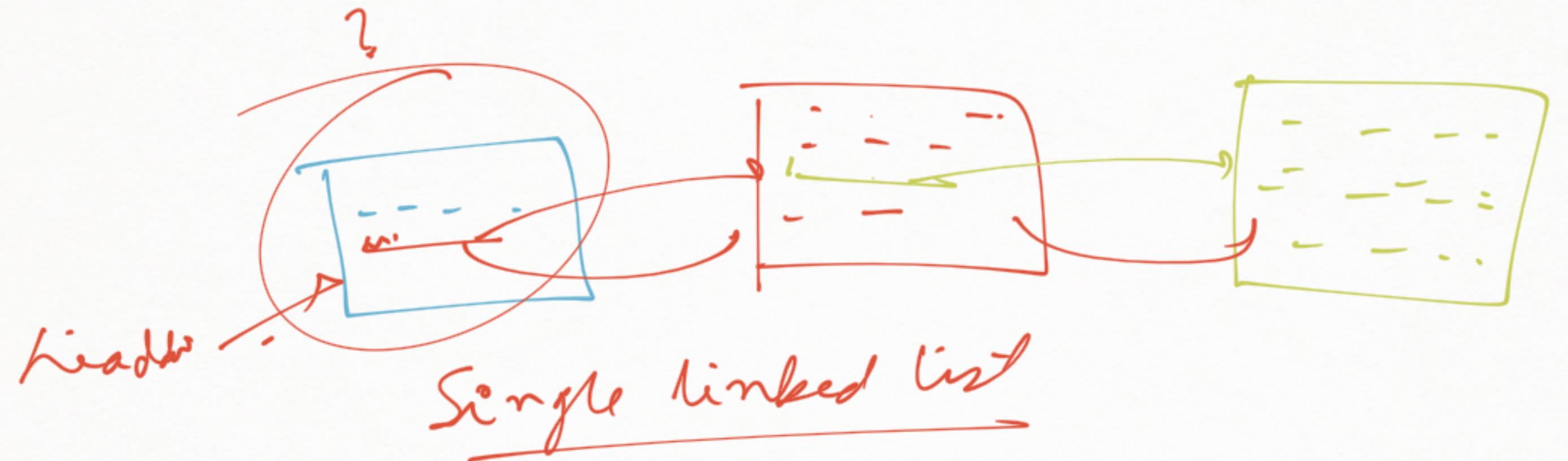
15 Aug



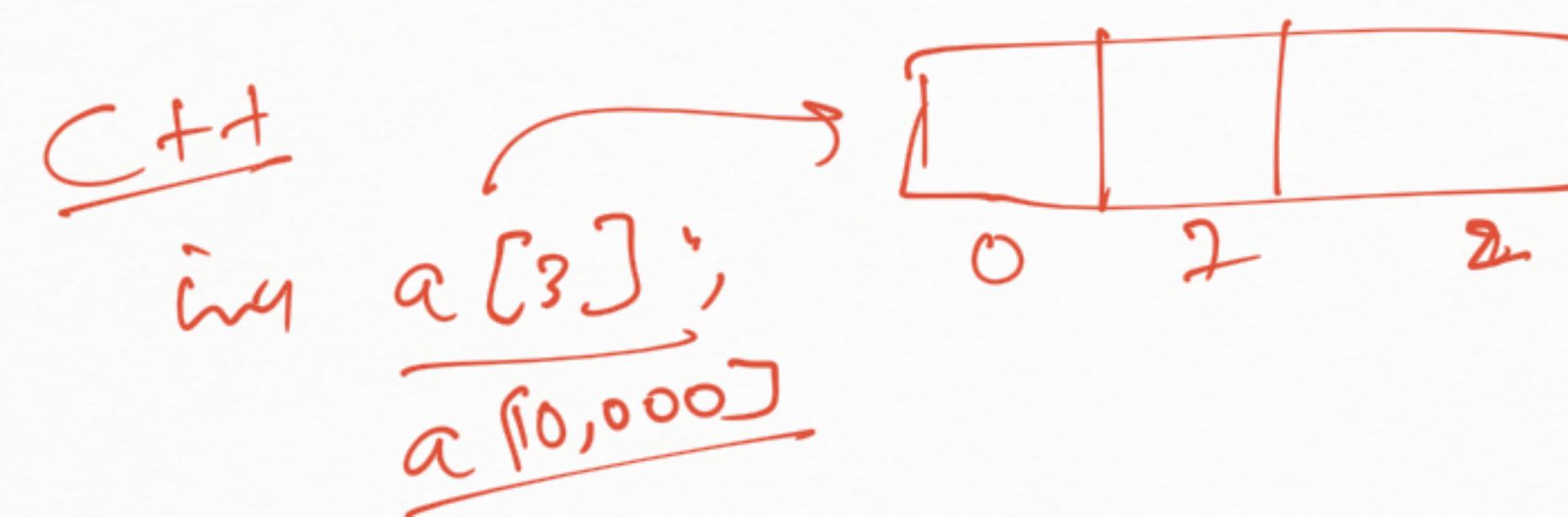
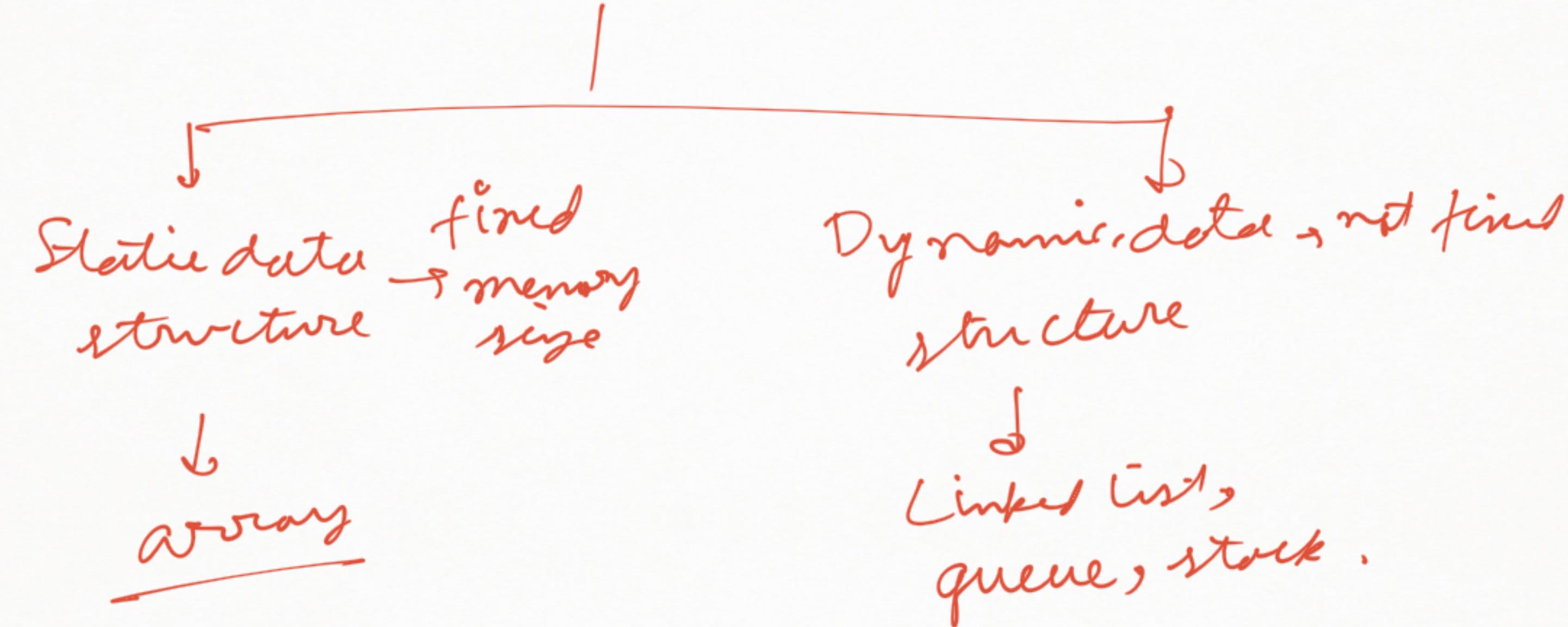
first come first serve

Linked list





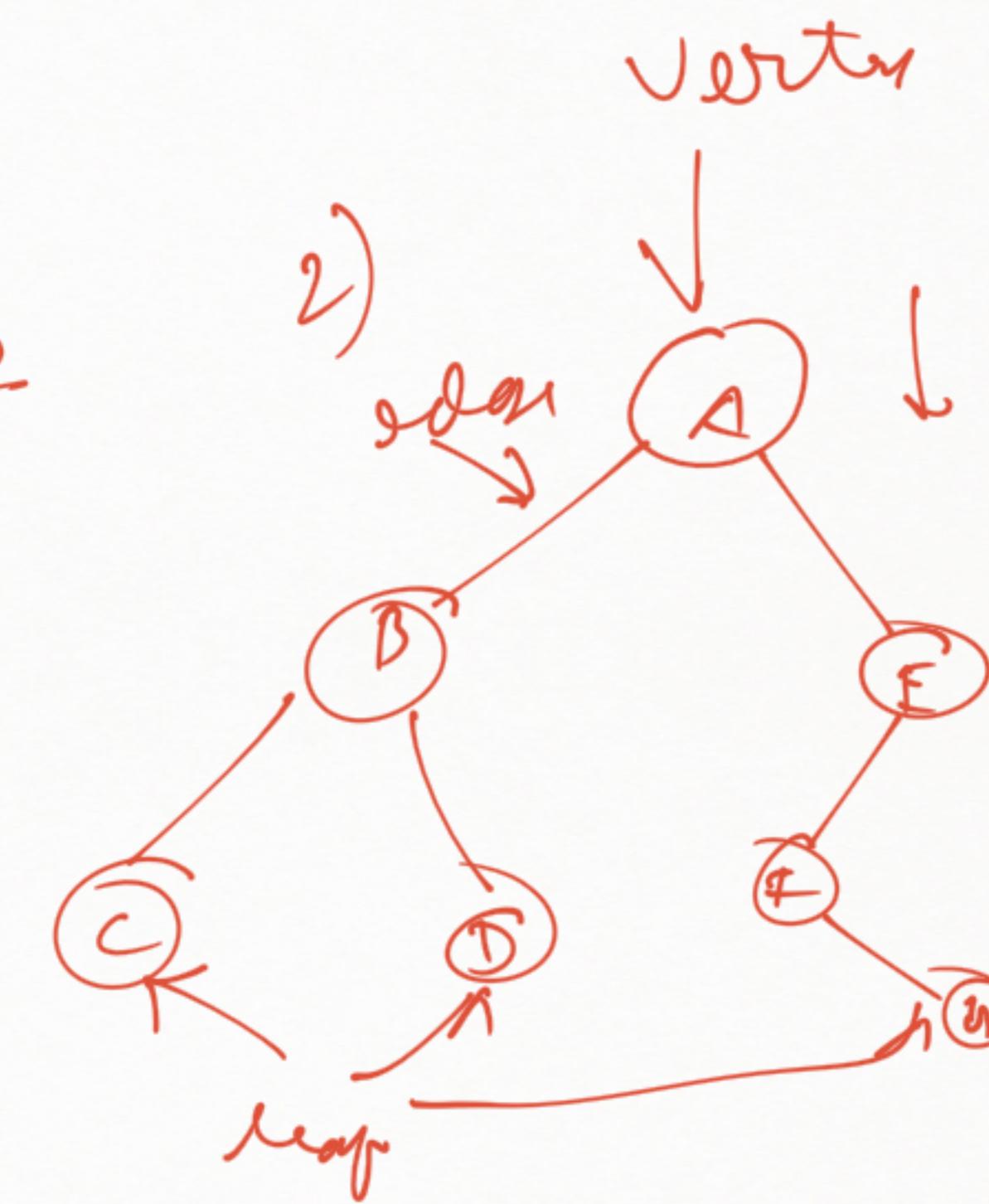
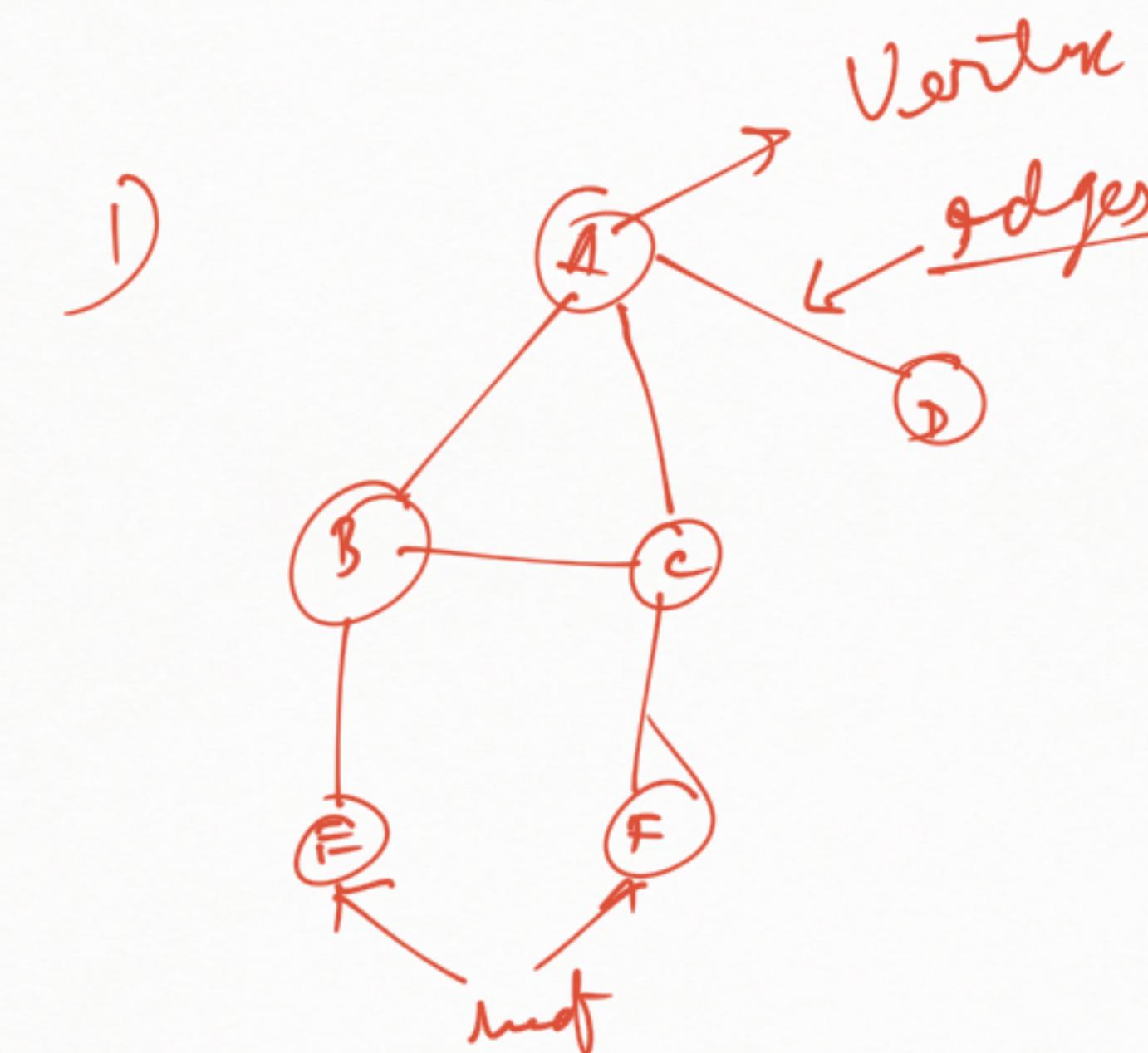
Linear data structure



N m - linear

1) Graph data structures

2) Tree



Defin
Type
Implementation
traversal
Levels
Application

Linear

sequential

array , ll, Queue
& Stack

simple execution

one sum

single level

LDS . SD'

Non linear
Data Structure

hierarchically

trees , graph

not so simple, Complex

multiple runs

various levels

Image processing & AI

