$$STL = Containers + Algo + Iterators$$

Sanjay

Sanya

object which
stores data

Procedure to
process data

Object which points
to an element of a
container

Containers

① → Sequence Containers → Linear fashion

② → Associative Containers → Direct Access

③ → Derived Containers → Real World Modelling

⑦ → ⑨ → ⑪ → ① ↓

→ Vector
→ List
→ Dequeue

Tree

→ Set/Multiset
→ Map/Multimap
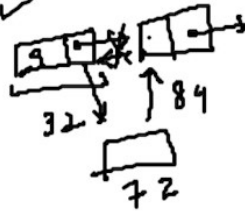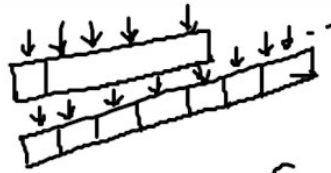
→ Stack ✓
→ queue ✓
→ priority_queue

6
5
4

LIFO
FIFO

When to use which?

## Sequence Containers

1. Vector → RA = fast
   M. Insertion/Del = slow
   Del/Insertion at the end = fast

2. List → RA → slow
   M Insertion → fast
   Del/Ins at the end → fast

Associative Containers → All operations fast except RA ✓

Derived Containers → Depends → Data Structure

2 3 4

9 1 * →
32 ↑ 84

72

9 1    Data Structure

Reshmi
R dhan
Rohit