DSA through C++

Queue

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Agenda

1. What is Queue ?
2. Operations on Queue
3. Ways to implement Queue

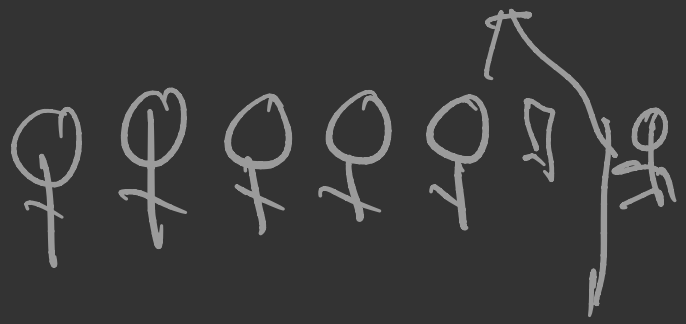
What is Queue?

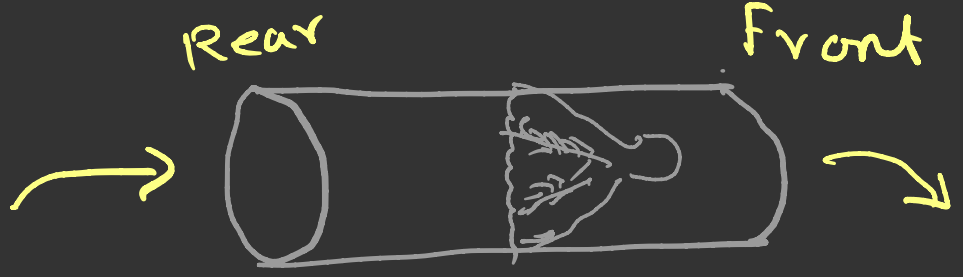
- Queue is a linear data structure.
- Working principle of queue is First in First out.

- In stack only one end is open for insertion and deletion
- In queue one end is for insertion and another end is for deletion

- Insertion is done on one end known as rear or back
- Deletion is done on another end known as Front

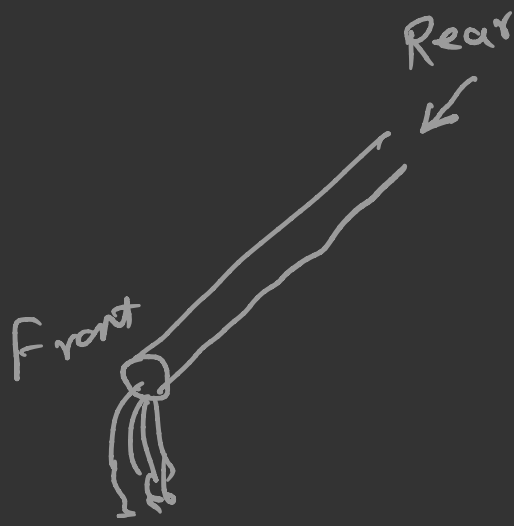
Real world examples





Batch

100 students



Exam for college or job

Ranking System = queue

Operations on Queue

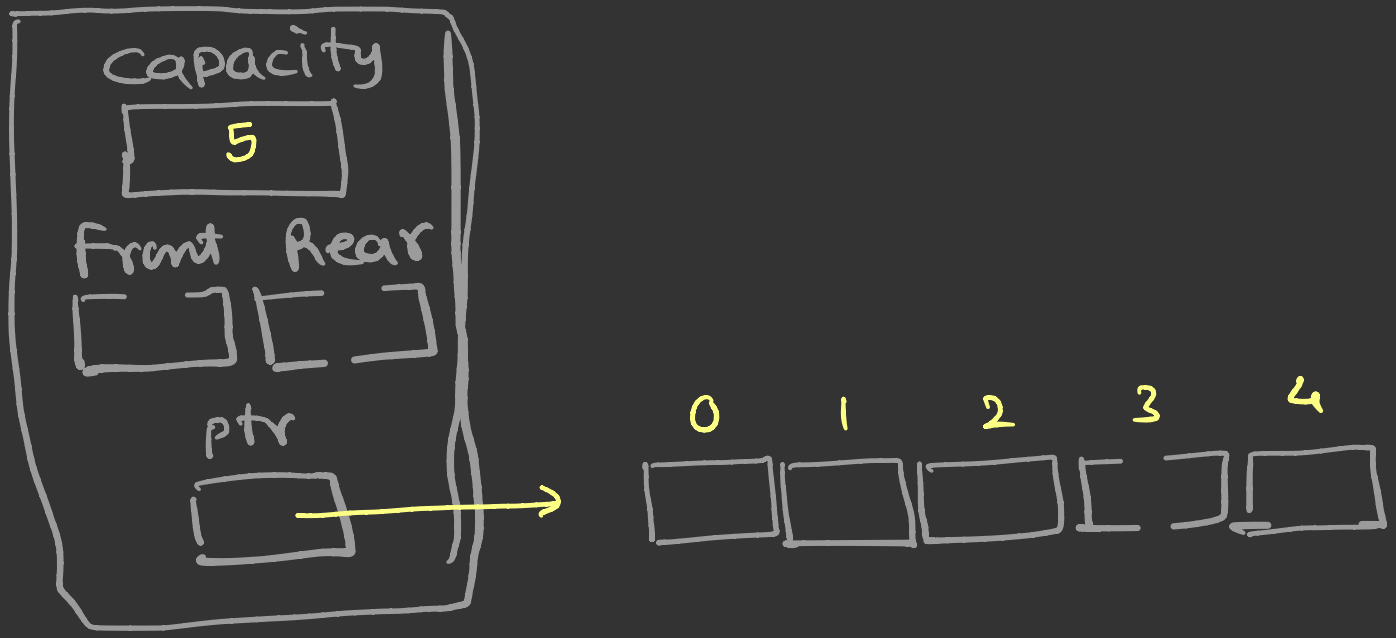
Operations

1. Insertion — enqueue
2. Deletion — dequeue
3. getFront
4. getBack

Ways to implement Queue

1. using Arrays
2. using Dynamic Arrays
3. using Linked List

Implementing Queue using Arrays



③ Deletion