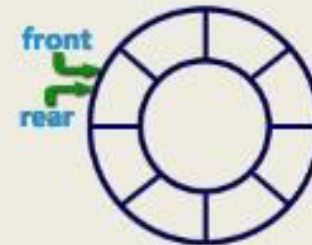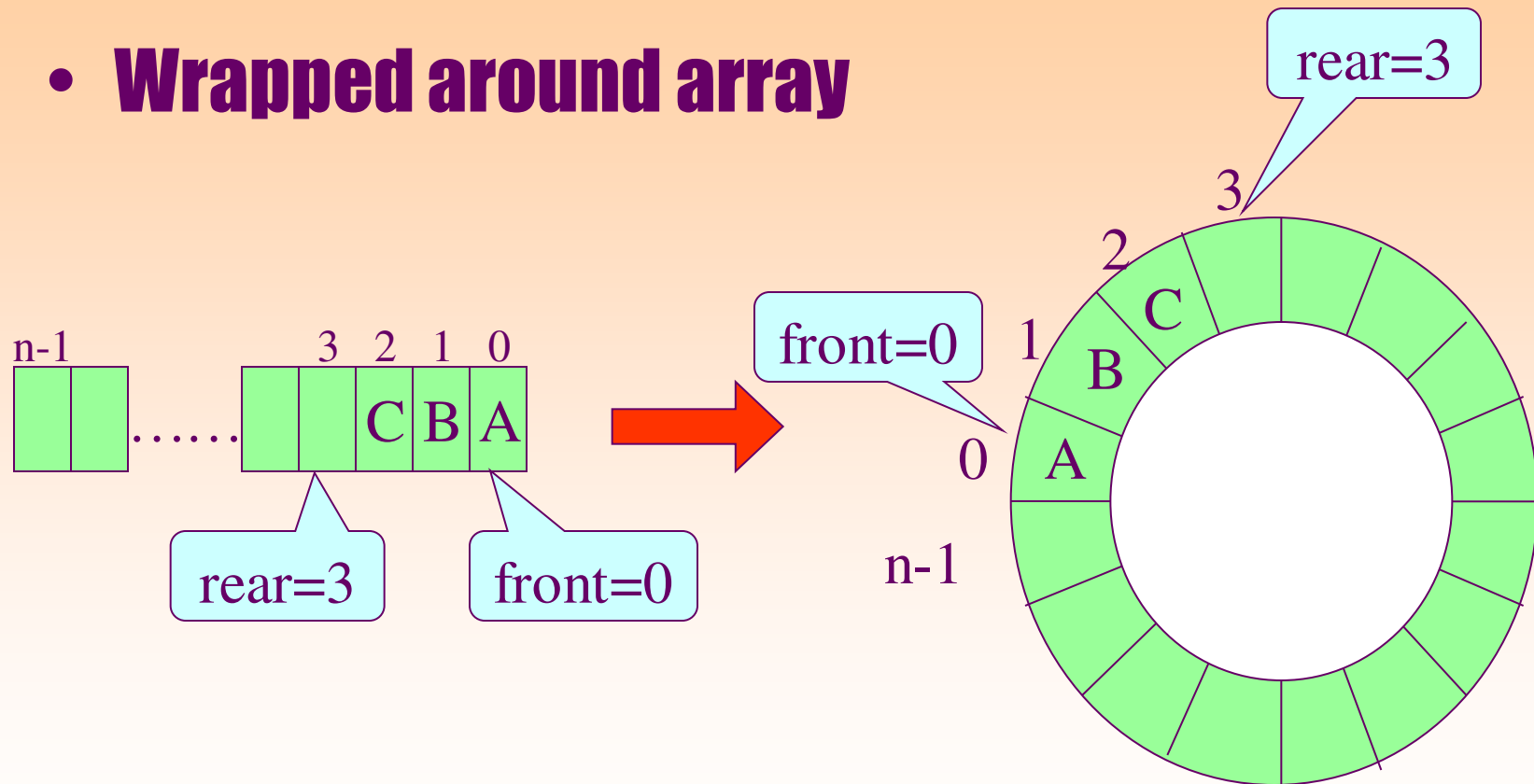# C-Queues

What is Circular Queue?

- A Circular Queue can be defined as follows...

- Circular Queue is a linear data structure in which the operations are performed based on FIFO (First In First Out) principle and the last position is connected back to the first position to make a circle.

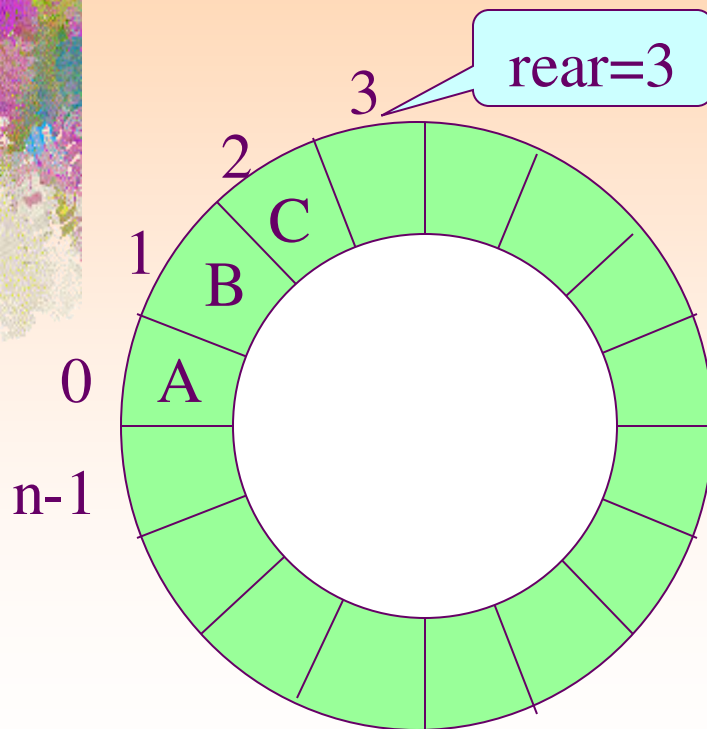- Graphical representation of a circular queue is as follows...

front

rear

Circular Queues

- Wrapped around array
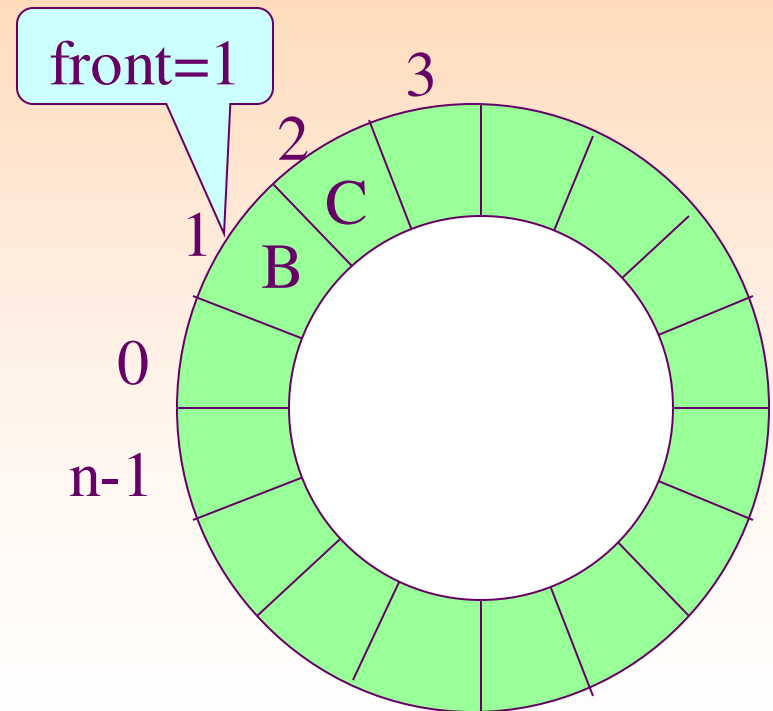
EnQueue & DeQueue In Circular Array

- EnQueue
  - rear = (rear + 1) MOD n

- DeQueue
  - front = (front + 1) MOD n

Empty/Full In Circular Array

- When rear equals front, Queue is empty
- When (rear + 1) MOD n equals front, Queue is full
- Circular array with capacity *n* at most can hold *n-1* items.