ALGO Tutorial 04

1. What is a circular queue?
    - A circular queue is the extended version of a regular queue where the last element is connected to the first element.

2. What are the characteristics of the circular?
    - Fixed Size
    - Front & Rear Pointers
    - Enqueue
    - Dequeue
    - Empty & Full Conditions

3. Give applications of the circular queue.
    - Disk space allocation
    - CPU scheduling
    - Traffic management

4. What is the algorithm of the circular queue?
    - Initialize the Circular Queue
    - Enqueue
    - Dequeue
    - Front Operation
    - Display the circular queue

5. Write a simple program of circular.
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6. Compare and contrast linear queues and circular queues.
    - Linear queue, arranges the data in a linear pattern while, circular queue arranges the data in a circular order where the rear end is connected with the front end.
    - Linear queue, the insertion and deletion operations are fixed but circular queue insertion and deletion are not fixed.
    - Linear queue requires more memory space circular queue requires less memory space.
    - Linear queue is inefficient in comparison to a circular queue while circular queue is more efficient in comparison to linear queue.