Assignment - E32

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Q. Describe circular queue operations.

Ans: Operations on circular queue:

1] Front: Get the front item from queue.

2] Rear: Get the last item from queue.

3] enQueue: This function is used to insert an element into the circular queue. In a circular queue, the new elements is always inserted at Rear position.

4] deQueue: This function is used to delete an element from the circular queu. In circular queue, the element is always deleted from front position.

Q. How is order processing convenient using circular queue over queue?

Ans:

order processing also follows same concept as that of circular queue. circular queue is efficient because it uses memory efficiently. As order will reach by using enQueue operation we can add element into queue and when order is served we can Pop that item and front will move on to next item. When we reach at max order then orders will be stored in front if queue item is not there on that location.

Q3. Discuss time complexity of circular queue.

Ans: The time complexity of most operations on circular queues is constant time complexity i.e. O(1). Queue follows first in first out principal so there is no any "for" or "while" loop in queue operations. The time complexity of enqueue(), dequeue() operation is O(1) as there is no loop in any of the operation.