622. Design Circular Queue

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Design your implementation of the circular queue. The circular queue is a linear data structure in which the operations are performed based

One of the benefits of the circular queue is that we can make use of the spaces in front of the queue. In a normal queue, once the queue be

Implement the `MyCircularQueue` class:

- `MyCircularQueue(k)` Initializes the object with the size of the queue to be `k`.
- `int Front()` Gets the front item from the queue. If the queue is empty, return `-1`.
- `int Rear()` Gets the last item from the queue. If the queue is empty, return `-1`.
- `boolean enQueue(int value)` Inserts an element into the circular queue. Return `true` if the operation is successful.
- `boolean deQueue()` Deletes an element from the circular queue. Return `true` if the operation is successful.
- `boolean isEmpty()` Checks whether the circular queue is empty or not.
- `boolean isFull()` Checks whether the circular queue is full or not.

You must solve the problem without using the built-in queue data structure in your programming language.

Example 1:

```
Input
["MyCircularQueue", "enQueue", "enQueue", "enQueue", "enQueue", "Rear", "isFull", "deQueue", "enQueu
[[3], [1], [2], [3], [4], [], [], [], [4], []]
Output
[null, true, true, true, false, 3, true, true, true, 4]

Explanation
MyCircularQueue myCircularQueue = new MyCircularQueue(3);
myCircularQueue.enQueue(1); // return True
myCircularQueue.enQueue(2); // return True
myCircularQueue.enQueue(3); // return True
myCircularQueue.enQueue(4); // return False
myCircularQueue.Rear();     // return 3
myCircularQueue.isFull();   // return True
myCircularQueue.deQueue();  // return True
myCircularQueue.enQueue(4); // return True
myCircularQueue.Rear();     // return 4
```

Constraints:

- `1 <= k <= 1000`
- `0 <= value <= 1000`
- At most `3000` calls will be made to `enQueue`, `deQueue`, `Front`, `Rear`, `isEmpty`, and `isFull`.

Seen this question in a real interview before? 1/4

Yes No

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