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Creating a Queue.

QUEUE[SIZE]

FRONT = -1

REAR = -1

Inserting an element in a Circular queue. Algorithm

Step 1: IF FRONT = 0 and REAR = SIZE - 1  
Write "OVERFLOW"  
Go to step 4.  
[END of IF]

Step 2: IF FRONT = -1 and REAR = -1  
SET FRONT & REAR = 0  
ELSE IF REAR = SIZE - 1 and FRONT != 0  
SET REAR = 0  
ELSE  
SET REAR = REAR + 1  
[END OF IF]

Step 3: SET QUEUE[REAR] = VAL.

Step 4: EXIT.



## Deleting an element from a queue - Algorithm

Step 1: IF FRONT = -1

Write "UNDERFLOW"

Go to Step 4.

[END OF IF]

Step 2: SET VAL = QUEUE[FRONT]

Step 3: IF FRONT = REAR

SET FRONT = REAR = -1

ELSE

IF FRONT = <sup>SIZE</sup> MAX - 1

SET FRONT = FRONT + 1

[END OF IF]

[END OF IF]

Step 4: EXIT.