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WEEK 5: Program to simulate working of Queue of integers using array.

Algorithm:

Step 1: [Method to implement inserting at rear]

(Overflow check):

if $REAR = QVE_SIZE - 1$

then write Queue is full.

return

Step 2: Increment Rear pointer and add item:

$REAR = REAR + 1$

$Q[REAR] = ITEM.$

Step 3: [Method to implement deleting at front]

if $FRONT > REAR$

$FRONT = 0;$

$REAR = -1;$

return -1;

Step 4: return $Q[FRONT++]$

Step 5: [Method to display]:

if $FRONT > REAR$

then write Queue is empty

return

Step 6: Print contents of Queue

for($i = FRONT$; $i \leq REAR$; $i++$)

print $Q[i]$

Step 7: void main ()

Enter choice: 1. Insert 2. Delete 3. Display 4. Exit
switch (choice)

Case 1: Input items to be inserted.

call insertrear method.

Case 2: print item deleted.

if ITEM = -1

~~if~~ then write Queue is empty.

Call deletefront method.

Case 3: call display method.

default: exit.

Step 8: Stop.