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LAB 4 Queue Implementation.

Q. WAP to simulate the working of a queue of integers using an array. Provide the following operations:

(a) Insert

(b) Delete

(c) Display

The program should print appropriate messages for queue empty and queue overflow conditions.

Ans

```
Create Queue queue of size MAX
  front -> -1
  rear -> -1

  insert(x)
  {
    if(rear == MAX-1)
    printf Queue Overflow!
    else
      if(front == -1)
          front = 0;
      queue[++rear] = x;
  }
  delete()
  {
    if (front == -1 || front>rear)
      printf Queue Underflow!
    else
      printf queue[front++]
      if (front>rear)
      {
```

```
    front = -1
    rear = -1
}
display ()
{
  int i
  if (front == -1)
      printf Queue empty!
  else
  {
      for (i = front; i <= rear; i++)
          printf queue[i]
  }
```