

# Lab - 4 Queue Implementation

## Pseudo code

A[SIZE]

front  $\leftarrow -1$

rear  $\leftarrow -1$

isfull()

{  
if (rear == size - 1)  
return true

else  
return false

}

is empty()

{  
if (front == -1 & rear == -1)  
return true

else  
return false

}

enqueue(n)

{  
if (isfull())  
print ("Q is full")  
else if (is empty())  
front  $\leftarrow$  rear  $\leftarrow$  0

else  
rear  $\leftarrow$  rear + 1

A[rear] = n

}

Dequeue()

{  
if (is empty())  
print ("Q is empty")  
else if (front == rear)

n  $\leftarrow$  A[front]

front  $\leftarrow$  rear  $\leftarrow$  -1

else

{ n  $\leftarrow$  A[front]

front  $\leftarrow$  front + 1

}

return n

}

display()

{

if (is empty())  
    print ("Queue is empty")

else

for (int i = front; i <= rear; i++)  
    ~~print (arr[i])~~  
    print (arr[i]);

}