<https://www.youtube.com/watch?v=PvDoT79oHTs&list=PLsyeobzWxl7oRKwDi7wjrANsbhTX0IK0J&index=13>

Queue Implementation in Java Using Array (FIFO)

**package** test;

**public** **class** Queue {

**final** **int** MAX\_QUEUE\_SIZE = 5;

**int** size;

**int**[] queue = **new** **int**[MAX\_QUEUE\_SIZE];

**int** front;

**int** rear;

// public void enQueue(int data) {

// queue[rear] = data;

// rear = (rear + 1) % queueSize;

// size = size + 1;

// }

// public int deQueue() {

// int data = queue[front];

// front = (front + 1) % queueSize;

// size = size - 1;

// return data;

// }

**public** **void** enQueue(**int** data) {

**if** (!isFull()) {

queue[rear++ % MAX\_QUEUE\_SIZE] = data;

size++;

} **else** {

System.***out***.println("Queue is Full!!");

}

}

**public** **int** deQueue() {

**int** data = 0;

**if** (!isEmpty()) {

data = queue[front++ % MAX\_QUEUE\_SIZE];

size--;

} **else** {

System.***out***.println("Queue is Empty!!");

}

**return** data;

}

**public** **void** showQueue() {

**for** (**int** i = 0; i < size; i++) {

System.***out***.print(queue[(front + i) % MAX\_QUEUE\_SIZE] + " ");

}

System.***out***.println();

**for** (**int** n : queue) {

System.***out***.print(n + " ");

}

}

**public** **int** getSize() {

**return** size;

}

**public** **boolean** isEmpty() {

**if** (getSize() == 0)

**return** **true**;

**else**

**return** **false**;

}

**public** **boolean** isFull() {

**if** (getSize() == MAX\_QUEUE\_SIZE)

**return** **true**;

**else**

**return** **false**;

}

}

**package** test;

**public** **class** Tester {

**public** **static** **void** main(String[] args) {

Queue queue = **new** Queue();

queue.enQueue(5);

queue.enQueue(2);

queue.enQueue(7);

queue.enQueue(3);

queue.deQueue();// removed 5 (we are removing elements but we are just shifting front and rear

// pointer)

queue.deQueue();// removed 2

queue.enQueue(9);

queue.enQueue(1);

queue.enQueue(19);

queue.enQueue(15);

System.***out***.println("Is Queue Full ? " + queue.isFull());

System.***out***.println("Is Queue Empty ? " + queue.isEmpty());

System.***out***.println("Size : " + queue.getSize());

queue.showQueue();

}

}