

```
#include <stdio.h>

#define SIZE 5

int queue[SIZE];
int front = -1;
int rear = -1;

int isEmpty() {
    return front == -1;
}

int isFull() {
    return rear == SIZE - 1;
}

void enqueue(int data) {
    if (isFull()) {
        printf("Queue is full!\n");
        return;
    }
    if (isEmpty()) {
        front = 0;
    }
    rear++;
    queue[rear] = data;
    printf("Enqueued: %d\n", data);
}

void dequeue() {
    if (isEmpty()) {
        printf("Queue is empty!\n");
    }
}
```

```
        return;
    }
    printf("Dequeued: %d\n", queue[front]);
    if (front == rear) {
        // Queue becomes empty after dequeue
        front = -1;
        rear = -1;
    } else {
        front++;
    }
}
```

```
void display() {
    if (isEmpty()) {
        printf("Queue is empty!\n");
        return;
    }
    printf("Queue elements: ");
    for (int i = front; i <= rear; i++) {
        printf("%d ", queue[i]);
    }
    printf("\n");
}
```

```
int main() {
    enqueue(10);
    enqueue(20);
    enqueue(30);
    display();

    dequeue();
}
```

```
display();
```

```
enqueue(40);
```

```
enqueue(50);
```

```
enqueue(60); // This should show "Queue is full!"
```

```
display();
```

```
return 0;
```

```
}
```