```c
void init_que(struct queue* qu) {
    qu->rear = 0;
    qu->front = 0;
    qu->cnt = 0;
}
```

```
qu     ┌──┐
       │  │
       └──┘
       rear, front
cnt = 0
```

```c
void insert_que(struct queue* qu, int a) {
    if (qu->cnt != MAX) {
        qu->que[(qu->rear) % MAX] = a;
        qu->rear++;
        qu->cnt++;
    }
    else
        printf("Queue is FULL\n");
}
```

```
1. qu    ┌──┐
         │1 │
         └──┘
           rear
   cnt = 0
   MAX = 3

2. qu    ┌──┬──┐
         │1 │  │
         └──┴──┘
             rear
   cnt = 1
```

```c
int pop_que(struct queue* qu) {
    int pop_value;
    if (qu->cnt != 0) {
        pop_value = qu->que[(qu->front) % MAX];
        qu->front++;
        qu->cnt--;
    }
    else
        printf("Queue is EMPTY\n");
    return pop_value;
}
```

```
1. qu    ┌──┬──┬──┐
         │1 │2 │3 │
         └──┴──┴──┘
           pop_value
   cnt = 3

2. qu    ┌──┬──┬──┐
         │1 │2 │3 │
         └──┴──┴──┘
             front
   cnt = 2
```