

```
void enQ()
```

```
{
```

```
int element;
```

```
if ((front == 0 && rear == MAX - 1) || (front == (rear + 1) % MAX));
```

```
printf("Q is full!\n");
```

```
else
```

```
{
```

```
if (front == -1 && rear == -1)
```

```
front = 0;
```

```
rear = (rear + 1) % MAX;
```

```
printf("Enter element: ");
```

```
scanf("%d", &element);
```

```
Q[rear] = element;
```

```
}
```

```
}
```

```
void deQ()
```

```
{
```

```
if (rear == -1)
```

```
printf("Q is empty");
```

```
else if (front == rear)
```

```
{
```

```
printf("Element removed is %d\n", Q[front]);
```

```
front = rear = -1;
```

```
}
```

```
else
```

```
{
```

```
printf("Element removed is %d\n", Q[front]);
```

```
front = (front + 1) % MAX;
```

```
}
```

```
}
```

```
void display()
```

```
{
```

```
if (rear == -1)
```

```
printf("Q is empty");
```

```
else if (front == rear)
```

```
{  
    for (int i = front; i <= rear; i++)  
        printf("%d\t", a[i]);  
    printf("\n");  
}  
else  
{  
    for (int i = front; i < max; i++)  
        printf("%d\t", a[i]);  
    for (int i = 0; i <= rear; i++)  
        printf("%d\t", a[i]);  
    printf("\n");  
}  
}
```