

3 Queue Implementation using Arrays.

```
int A[SIZE]
```

```
front ← -1
```

```
rear ← -1
```

```
Enqueue (x)
```

```
{ if (IsFull())
```

```
    printf ("Queue is full")
```

```
{ else if (IsEmpty())
```

```
    front ← rear ← 0 }
```

```
else
```

```
{ rear ← rear + 1
```

```
}
```

```
A[rear] = x
```

```
}
```

```
Dequeue ()
```

```
{ if (IsEmpty())
```

```
    printf ("Queue is Empty");
```

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

```
{ front ← rear ← -1
```

```
}
```

```
else
```

```
{ front ← front + 1
```

```
}
```

```
}
```

```
IsFull ()
```

```
{ if (rear == SIZE(A) - 1)
```

```
    return True
```

```
else
```

```
    return false
```

```
}
```

```
isEmpty()
```

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

```
    return true
```

```
    else
```

```
    return false
```

```
}
```