

Insert function time =  $O(n)$

```
// inserts new node at certain index. All nodes previously at the index or past the index get moved down the queue.  
void insert(int new_value, int new_index){
```

In the worst case scenario the function will iterate through the whole queue.

Remove function time =  $O(n)$

```
// removes node at certain index  
int remove(int new_index){
```

In the worst case scenario the function will iterate through the whole queue.

Sort function time =  $O(n^2)$

```
// sorting function that implements the bubble sort algorithm  
void sort(){
```

In the worst case scenario the function will iterate through the whole queue  $n$  times.

Search function time =  $O(n^2)$

```
// searching function that implements the binary search algorithm  
int search(int target){
```

In the worst case scenario the function will iterate through the whole queue  $n$  times.

