

Deque

Double Ended Queues(Deque) are basically an implementation of the data structure double-ended queue. A queue data structure allows insertion only at the end and deletion from the front. Double-ended queues are a special case of queues where insertion and deletion operations are possible at both the ends.

They are similar to [vectors](#), but are more efficient in case of insertion and deletion of elements. Unlike vectors, contiguous storage allocation may not be guaranteed.

1. To use deque, you must import the deque header file

```
#include <deque>
```

2. The syntax to define a deque is:

```
std::deque<dataType> dequeName;
```

The time complexities for doing various operations on deques are-

- Accessing Elements- $O(1)$
- Insertion or removal of elements- $O(N)$
- Insertion or removal of elements at start or end- $O(1)$

Functions

It has similar functions as [vectors](#) and [lists](#) which work the same way.