

# Queues

Ulises Méndez Martínez

Algorist Weekly Talks

*ulisesmdzmtz@gmail.com*

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# FIFO or LILO?

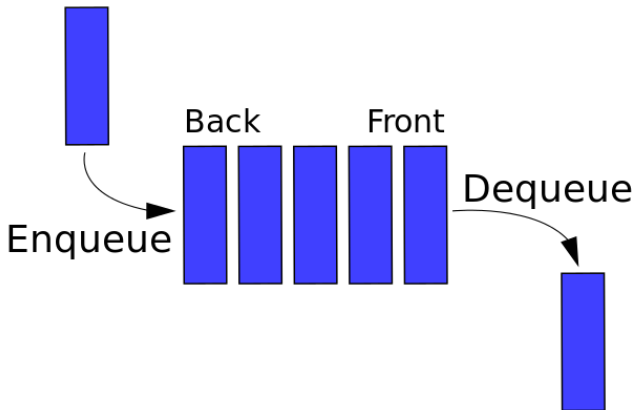


Figure : Representation of a FIFO (first in, first out) queue

# FIFO

In a FIFO data structure, the first element added to the queue will be the first one to be removed. This is equivalent to the requirement that once a new element is added, all elements that were added before have to be removed before the new element can be removed.

# C++ STL Queue

`std::queue`

```
template <class T, class Container = deque<T> > class queue;
```

## FIFO queue

queues are a type of container adaptor, specifically designed to operate in a FIFO context (first-in first-out), where elements are inserted into one end of the container and extracted from the other.

- empty
- size
- front
- back
- push\_back
- pop\_front

The standard container classes deque and list fulfill these requirements. By default, if no container class is specified for a particular queue class instantiation, the standard container deque is used.