

## Predefine Stack Methods

In C++, the `stack` class provides various methods to perform different operations on a stack.

Operation	Description
<code>push()</code>	adds an element into the stack
<code>pop()</code>	removes an element from the stack
<code>top()</code>	returns the element at the top of the stack
<code>size()</code>	returns the number of elements in the stack
<code>empty()</code>	returns <code>true</code> if the stack is empty

## C++ Predefined Queue Methods

In C++, the `queue` class provides various methods to perform different operations on a queue.

Methods	Description
<code>push()</code>	inserts an element at the back of the queue
<code>pop()</code>	removes an element from the front of the queue
<code>front()</code>	returns the first element of the queue
<code>back()</code>	returns the last element of the queue
<code>size()</code>	returns the number of elements in the queue
<code>empty()</code>	returns <code>true</code> if the queue is empty

## Basic operations on List

C++ STL provides various functions that we can use to perform different operations on lists. Let's look at some commonly used list functions to perform the following operations:

1. Add elements
  2. Access elements
  3. Remove elements
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### 1. Add Elements to a List in C++

We can add values in a list using the following functions:

- `push_front()` - inserts an element to the beginning of the list
- `push_back()` - adds an element to the end of the list

### 2. Access List Elements

We can access list elements using the following functions:

- `front()` - returns the first element of the list
- `back()` - returns the last element of the list

### 3. Delete List Elements

We can delete list elements using the following functions:

- `pop_front()` - removes the element at the beginning of the list
- `pop_back()` - removes the element at the end of the list

## Other List Functions in C++

While there are many functions that can be used with lists, we will only look at some of the functions in the table below:

Function	Description
<code>reverse()</code>	Reverses the order of the elements.
<code>sort()</code>	Sorts the list elements in a particular order.
<code>unique()</code>	Removes consecutive duplicate elements.
<code>empty()</code>	Checks whether the list is empty.
<code>size()</code>	Returns the number of elements in the list.
<code>clear()</code>	Clears all the values from the list
<code>merge()</code>	Merges two sorted lists.