C++ Library - <string>

Introduction
String is a class and all objects that in string represent sequences of characters.

Declaration
Following is the declaration for std::string.

```
typedef basic_string<char> string;
```

C++11

```
typedef basic_string<char> string;
```

Member types

member type	definition
value_type	char
traits_type	char_traits<char>
allocator_type	allocator<char>
reference	char&
const_reference	const char&
pointer	char*
const_pointer	const char*
iterator	a random access iterator to char (convertible to const_iterator)
const_iterator	a random access iterator to const char
reverse_iterator	reverse_iterator<iterator>
const_reverse_iterator	reverse_iterator<const_iterator>
difference_type	ptrdiff_t
size_type	size_t

Member functions

S.N.	Member function & description
1	**(constructor)** It constructs string object.
2	**(destructor)** It is a string destructor.
3	**operator=** It is a string assignment.

Iterators

S.N.	Iterator & description
1	**begin** It returns iterator to beginning.
2	**end** It returns iterator to end.
3	**rbegin** It returns reverse iterator to reverse beginning.
4	**rend** It returns reverse iterator to reverse end.
5	**cbegin** It returns const_iterator to beginning.
6	**cend** It returns a const_iterator pointing to the past-the-end character of the string.
7	**crbegin** It returns const_reverse_iterator to reverse beginning.
8	**crend** It returns const_reverse_iterator to reverse end.

Capacity

S.N.	Capacity & description
1	**size** It returns length of string.
2	**length** It returns length of string.
3	**max_size** It returns maximum size of string.

4	**resize** It resizes string.
5	**capacity** It returns size of allocated storage.
6	**reserve** It requests a change in capacity.
7	**clear** It clears the string.
8	**empty** It is used to test if string is empty.
9	**shrink_to_fit** It is used to shrink to fit.

Capacity

S.N.	Element acce & description
1	**operator[]** It is used to get character of string.
2	**at** It is used to get character in string.
3	**back** It is used to access last character.
4	**front** It is used to access first character.

Modifiers

S.N.	Modifier & description
1	**operator+=** It appends to string.
2	**append** It appends to string.
3	**push_back** It appends a character to string.
4	**assign** It is used to assign the content to string.
5	**insert** It is used to inset the value to string.
6	**erase** It is used to erase characters from string.
7	**replace** It is used to replace portion of string.
8	**swap** It is used to swap string values.
9	**pop_back** It is used to delete last character.

String operations

S.N.	String operation & description
1	**c_str** It is used to get C string equivalent.
2	**data** It is used to get string data.
3	**get_allocator** It is used to get an allocator.
4	**copy** It is used to copy sequence of characters from string.
5	**find** It is used to find content in string.
6	**rfind** It is used to find last occurrence of content in string.
7	**find_first_of** It is used to find character in string.

8	**find_last_of** It is used to find character in string from the end.	
9	**find_first_not_of** It is used to find absence of character in string.	
10	**find_last_not_of** It is used to find non-matching character in string from the end.	
11	**substr** It is used to generate substring.	
12	**compare** It is used to compare strings.	