



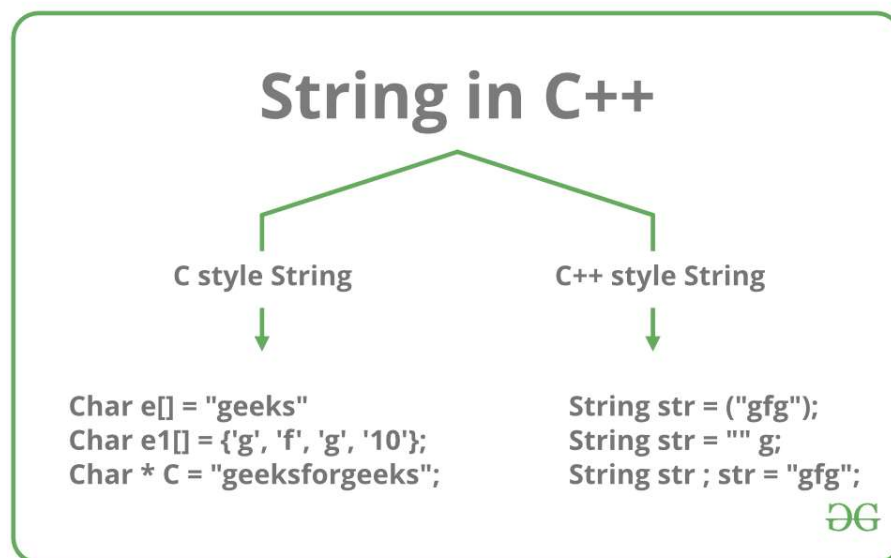
Strings in C++ and How to Create them?

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Strings in C++ are used to store text or sequence of characters. In C++ strings can be stored in one of the two following ways:

- C style string (using characters)
- String class



Each of the above methods is discussed below:

1. [C style string](#): In C, strings are defined as an array of characters. The difference between a character array and a string is the string is terminated with a special character '\0'. In C, the string is actually represented as an array of characters



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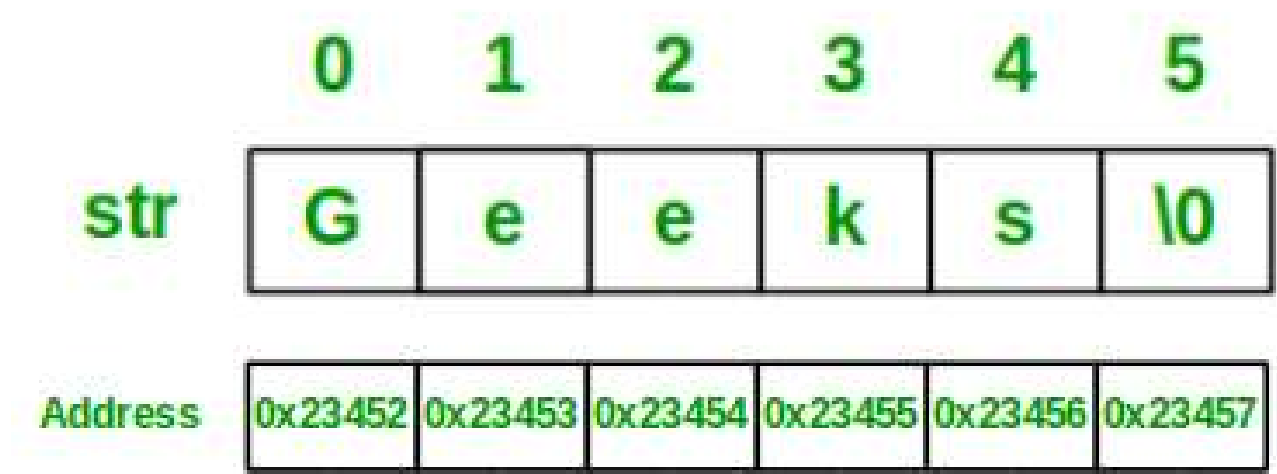
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to be supported in C++ too. The C++ compiler automatically sets "\0" at the end of the string, during initialization of the array.

Initializing a String in C++:

1. `char str[] = "Geeks";`
2. `char str[6] = "Geeks";`
3. `char str[] = {'G', 'e', 'e', 'k', 's', '\0'};`
4. `char str[6] = {'G', 'e', 'e', 'k', 's', '\0'};`

Below is the memory representation of a string "Geeks" in C++.



Let's look at some examples to better understand the string representation in C++, using C style:

```
// C++ program to demonstrate
// Strings using C style

#include <iostream>
using namespace std;

int main()
{
    // Declare and initialize string
    char str[] = "Geeks";

    // Print string
    cout << str;
```

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```
}
```

Output:

Geeks

2. **Standard String representation and String Class:** In C++, one can directly store the collection of characters or text in a string variable, surrounded by double-quotes. C++ provides [string class](#), which supports various operations like copying strings, concatenating strings etc.

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1. `string str1 = "Geeks";`
2. `string str2 = "Welcome to GeeksforGeeks!";`

Example:

```
// C++ program to demonstrate String
// using Standard String representation

#include <iostream>
#include <string>
using namespace std;

int main()
{
    // Declare and initialize the string
```

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```
string str2("A Computer Science Portal");

// Print string
cout << str1 << endl << str2;

return 0;
}
```

Output:

```
Welcome to GeeksforGeeks!
A Computer Science Portal
```

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