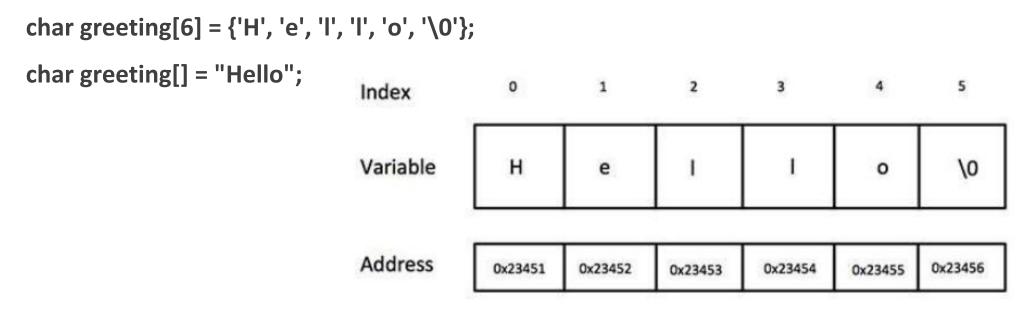
C Strings

The C-Style Character String

The C-style character string originated within the C language and continues to be supported within C++. This string is actually a one-dimensional array of characters which is terminated by a **null** character '\0'. Thus a null-terminated string contains the characters that comprise the string followed by a **null**.



Sample Program

```
#include <iostream>
using namespace std;
int main() {
  char greeting[6] = { 'H', 'e', 'I', 'I', 'o', '\0' };
  cout << "Greeting message: ";
  cout << greeting << endl;
  return 0;
}</pre>
```

strcpy_s

```
#include <iostream>
using namespace std;
int main() {
char s1[] = "abc";
char s2[5] = "";
strcpy_s(s2, s1);
cout << s1 << ", " << s2;
return 0;
```

```
strcpy(s1, s2);
Copies string s2 into string s1.
```

strcmp

```
#include <iostream>
#include <cstring>
using namespace std;
int main()
  char key[] = "mango";
  char buffer[50];
  do {
    cout << "What is my favourite fruit? ";</pre>
    cin >> buffer;
  } while (strcmp(key, buffer) == 0);
  cout << "Answer is correct!!" << endl;</pre>
  return 0;
```

strcmp(s1, s2);

Returns 0 if s1 and s2 are the same; less than 0 if s1<s2; greater than 0 if s1>s2

C++ String to read a line of text

```
#include <iostream>
using namespace std;
int main()
  char str[100];
  cout << "Enter a string: ";</pre>
  cin.get(str, 100);
  cout << "You entered: " << str << endl;</pre>
  return 0;
```

strlen

```
#include <iostream>
using namespace std;
int main()
  char str[100];
  cout << "Enter a string: ";</pre>
  cin.get(str, 100);
  cout << "You entered: " << str << endl;</pre>
  cout<<strlen(str);</pre>
  return 0;
```

Function

```
#include <iostream>
#include <string>
using namespace std;
void display(char s[])
  cout << "Entered char array is: " << s << endl;</pre>
void display(string s)
  cout << "Entered string is: " << s << endl;</pre>
int main()
  string str1;
  char str[100];
  cout << "Enter a string: ";</pre>
  getline(cin, str1);
  cout << "Enter another string: ";</pre>
  cin.get(str, 100, '\n');
  display(str1);
  display(str);
  return 0;
```

```
#include <iostream>
#include <string.h>
using namespace std;
int main()
  char str1[100];
  char newString[10][10];
  int i, j, ctr;
  cout<<"\n\n Split string by space into words :\n";
  cout<<"-----\n":
  cout<<" Input a string : ";
  cin.getline(str1,100);
  i = 0; ctr = 0;
  for (i = 0; i <= (strlen(str1)); i++)
     // if space or NULL found, assign NULL into newString[ctr]
     if (str1[i] == ' ' || str1[i] == '\0')
       newString[ctr][j] = '\0';
       ctr++; //for next word
       j = 0; //for next word, init index to 0
     else
       newString[ctr][j] = str1[i];
       j++;
  cout<<"\n Strings or words after split by space are :\n";</pre>
  for (i = 0; i < ctr; i++)
     cout << newString[i] << endl;</pre>
  return 0;
```

Tokenize a String