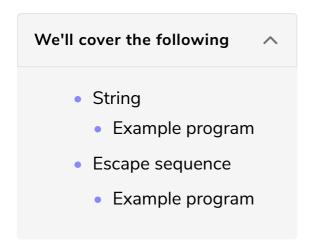
Strings and Escape Sequences

Let's discuss string data type and escape sequences in C++.



String

We can consider **string** as plain text that represents alphanumeric data. A string comprises one or more characters. A character can be a letter, number, and space.

Note: We are considering string as text even if it contains a number. Then, how can we distinguish between the string and the actual code? To distinguish the string from the normal code, we always write string data inside the double-quotes.

Example program

Try running the code below!

```
#include <iostream>

using namespace std;

int main() {
    // Initialize a string variable
    string text = "Hey12345";
    // Displays value of string variable
    cout << text;
}</pre>
```







In the code above, Hey12345 is recognized as a string. With the double quotes, is considered a string, not a number.

Note: Like fundamental data types, strings are not allocated a fixed amount of memory during the time of declaration.

Escape sequence

An **escape sequence** comprises two or more characters that are used to modify the format of the output. The first character in the escape sequence is the backslash \(\circ\), and the remaining characters determine what our escape sequence will actually do. Here is the list of the most commonly used escape sequences.

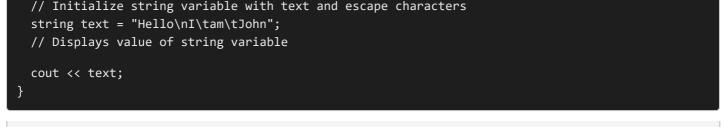
Escape Sequence	Meaning	Description
\n	New line	Moves the cursor to the beginning of next line
\t	Horizontal Tab	Moves the cursor 8 spaces towards the right
/**	Double quote	Inserts double quote in the output
\r	Carriage return	Moves the cursor to the beginning of the current line
//	Backslash	Displays backslash character
/"	Single quote	Inserts single quote in the output
\b	Backspace	Deletes the last character

Escape sequences

Example program

Let's write a program that demonstrates the use of an escape sequence.

```
#include <iostream>
using namespace std;
int main() {
```





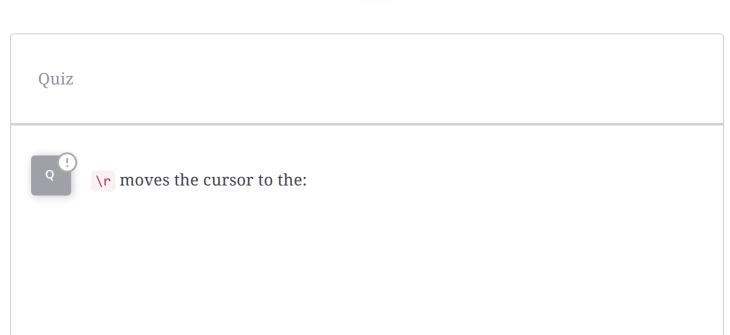


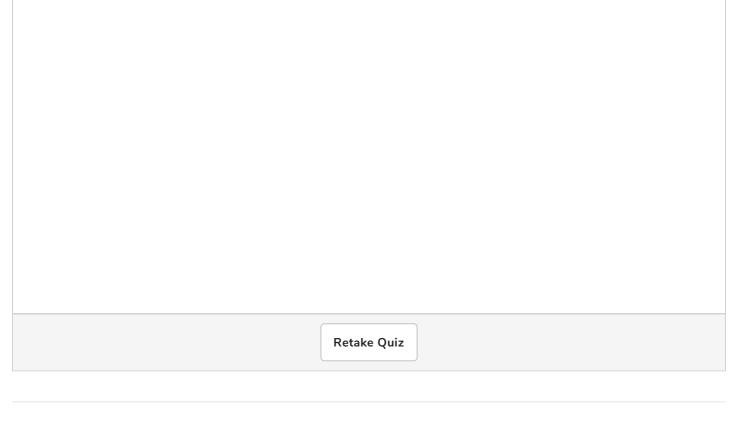


[]

Escape sequence

When we run the code above, it displays the text in a special format. First, it displays Hello, then it encounters the escape character \n. Therefore, it moves the cursor to the next line. In the next line, it displays I, then it encounters an escape character \t and resultantly moves the cursor eight spaces towards the right. It prints am and then, again, moves the cursor eight spaces towards the right because of an escape character, there it displays John.





That's all about the data types. Let's discuss how we can take input from the user in the upcoming lesson.

Stay tuned!