Learning Objectives: Printing

- Use the `cout` command to write text to the console

- Add a newline character by using the `endl` command

- Create single-line and multi-line comments by using `//` and `/* */` respectively

Printing to the Console

Printing to the Console

As you learn C++, you will write code in the text editor to the left. *There is already some code there that we will cover later.* For now, use a `cout` command to see the output of your program. Copy and paste the code below into the text editor on the left. Make sure your code is in between the `//add code below this line` and `//add code above this line` comments. Then click the `TRY IT` button to see what is outputted by the code.

```
cout << "Hello world!";
```

The reason you were able to see the words appear is because of the `cout` command followed by the `<<` and finally what you want to print `"Hello world";`. **cout** is short for *characters out* and is used to output your desired text.

Change your desired output to look like this and `TRY IT` again.

```
"My name is Codio."
```

Printing

Printing without the Newline Character

The `cout` command does not add a newline character. The code below will print the two words on the same line without a space. Copy the code below into the text editor on the left and then click the `TRY IT` button below to see the output.

```
cout << "Hello";
cout << "world!";
```

Adding the Newline Character

The text in red shows the `endl` command which adds the newline character. (The newline character is what is inserted when you press "Enter" or "Return").

.guides/img/NewlineCharacter

Add a second line by using the `cout << endl;` command under `"cout << "world!";`. Then enter the ouput command to print `My name is Codio.`. Finally, click the `TRY IT` button to see the resulting output.

```
cout << "Hello";
cout << "world!";
cout << endl;
cout << "My name is Codio." << endl;
```

challenge

What happens if you:

- Add a `space` after `Hello` and before the closing "
- Add `<< endl;` after `cout << "Hello ";`
- Delete `cout << endl;` under `cout << "world!";`

Comments

Comments

You may have wondered why a couple of lines of code are a different color (in the below example, light brown, but it depends on the Theme you have picked):

```cpp
//This is a C++ comment
cout << "This is regular C++ code";
```

.guides/img/Comment

In C++, to write notes in code without affecting its function, we can use `//` to make a **single-line comment**. Click the `TRY IT` button below to see the resulting output.

Comments can also be used to help you fix your code. You can "comment out" lines of code that are not working or you suspect are causing problems.

challenge

What happens if you:

- Change `cout << "Red"` to `cut << "Red"`
- Add `//` in front of `cut << "Red"`

Block Comments

To make a **block comment** you can either make multiple single-line comments using `//` or wrap the set of lines in `/*` and `*/`. `TRY IT` below!

```
/*
This is the start of a multi-line comment.
You can end the comment with a star(*) followed by a forward
        slash(/).
*/


//You can also do a multi-line comment
//like this!


cout << "Notice how the comments above are lightly faded.";
cout << "Most IDEs automatically lighten the comments.";
cout << "This is a common feature known as syntax
        highlighting.";
```

▼ **What is an IDE?**

An integrated development environment, or IDE, is a computer program that makes it easier to write other computer programs. They are used by computer programmers to edit source code, and can be easier to use than other text editors for new programmers. They can have compilers so programmers don't have to open other programs to compile the source code. They also often have syntax highlighting. ... It also may have predictive coding that can finish lines with syntax such as brackets or semicolons and can suggest variables to be used. It also may have debuggers that can step through lines, take breaks and inspect variables.
Source: Simple Wikipedia