

## Part 1: Setup and Output

Type the follow line of code. Be sure to copy exactly. NOTE a missed bracket, parentheses, or semi-colon will result in the software not working. The **actual program code** will be in BOLD lettering and *Line Notations* will be in italic.

// Symbol represents a notation for that line (AKA comment about the line of code). Typically programmers will use this type of notation to describe what is happening on that line of code. We will use it as a learning tool. You DO NOT need to copy down this part of the code unless you want to as reference.

```
#include <iostream>           //Calls library for Input/Output for the Operating System to configure
using namespace std;       //simplifies some of the coding when asking for input or output
int main()                 //Starts the program. All programs will begin with this coding
{                          //brace represents the program parameter

cout << "Hello World" << endl; //cout << will output data to the operating system; endl; will be the
                               //same as hitting enter on the keyboard. This will drop the cursor
                               //down to the next line.

return 0;                 //return 0; will send back a zero value to the start of the program, thus
                               //ending the program

}                          //the final brace will complete the program. Since we started with a
                               //right brace at the beginning of the program, we must end with the
                               //opposite brace (left facing) to formally close off the program; similar
                               //to what would occur in a algebraic function.
```

## Save File

## Part 2: C++ Input

To input data into a program you must first declare a variable (I.E Int, Char, String, Real, etc) in order to be able to record the user input. The variables should be declared at the beginning of the program below the first brace. NOTE theoretically a programmer can declare a variable in anywhere in the program, but this is seen as sloppy and against best practice.

Below there are added lines to the Hello World! Program. Add the additional lines in. We will be adding a string variable that will be asking your name.

To simplify the sample I have gotten rid of the line descriptors for the program and added new line descriptors for the new lines.

```
#include <iostream>

using namespace std;

int main()
{
string firstname;           //declares variable string which is equal to a word. If a
                               single letter is desired for entry the variable type would
                               be a char.

cout << "Hello World" << endl;

cout << "What is your name?";

cin >> firstname;           // cin>> allows user to type in info and assign to a variable

cout << "Hello " << firstname << " my name is PC\n"; // provides text with embedded version of
// variable. \n in quotes drops the cursor to a next line below
// Equivalent of typing <<endl.

return 0;

}
```

## Save File

**Assignment:** Have the program have you enter your age. Declare a variable that is int (integer) for your age. Be careful because this will only let you enter whole numbers (no decimals). What happens if you enter a number that is a decimal?