There are two basic parts to a C++ program: (1) instructions to the C++ preprocessor and compiler and (2) instructions that describe the processing to be done. Let's examine the following C++ program. The source code is numbered so that we can discuss the program structure, C++ syntax/semantics, data types, words and symbols with special meaning.

---

```
1.  // Program Rhyme prints out a nursery rhyme.

2.  #include <iostream>
3.  #include <string>
4.  using namespace std;

5.  const char SEMI_COLON = ';';
6.  const string VERB1 = "went up ";
7.  const string VERB2 = "down came ";
8.  const string VERB3 = "washed ";
9.  const string VERB4 = "out came ";
10. const string VERB5 = "dried up ";

11. int main()
12. {
13. string firstLine;
14. string secondLine;
15. string thirdLine;
16. string fourthLine;

17. firstLine = "The itsy bitsy spider " + VERB1 +
18. "the water spout";
19. secondLine = VERB2 + "the rain and " + VERB3 +
20. "the spider out";
21. thirdLine = VERB4 + "the sun and " + VERB5 +
22. "all the rain";
23. fourthLine = "and the itsy bitsy spider " + VERB1 +
24. "the spout again";

25. cout  << firstLine  << SEMI_COLON  << endl;
26. cout  << secondLine << SEMI_COLON  << endl;
27. cout  << thirdLine  << SEMI_COLON;
28. cout  << endl;
29. cout  << fourthLine  << '.' << endl;
30. return 0;
31. }
```

---

**C++ Programming Language Related Terminology**: The role of the C++ preprocessor, C++ compiler, C++ syntax and semantic and C++ reserved words.

The process of naming things (data types, data object, and actions) by giving them an identifier name following consistent naming conventions. Remember C++ is case sensitive in terms of syntax. Explain and demonstrate the following: program structure, program comments, program statements, program block of statements –executable part, hash mark(#), include directive – standard include directory, constant, variable and function declarations, using directive (see Ch 8), data type and/or data type identifier, int, char, string, value assigned to variable or constant, a single alphanumeric character as opposed to a string of characters, constant identifier, constant declaration, named constant, naming convention, assignment, arithmetic, insertion, extraction operators, operands, concatenation, assignment-input-output statements, and much more to learn along the way……

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In-class activity:

(a) Write a program to print out the following lines from Dr. Seuss's *Horton Hatches the Egg*.[1]

    I meant what I said
    And I said what I meant
    An elephant's faithful
    One hundred percent

(b) Put a border of asterisks around the entire quotation (all four sides). Each line of the quotation should be sent to the output stream in the same statement.

---

```
// Program seuss prints out quotations from Dr. Seuss's Horton Hatches the Egg.

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




int main()
{









      return 0;
}
```

[1] Dr. Seuss, *Horton Hatches the Egg* (New York: Random House, 1940).