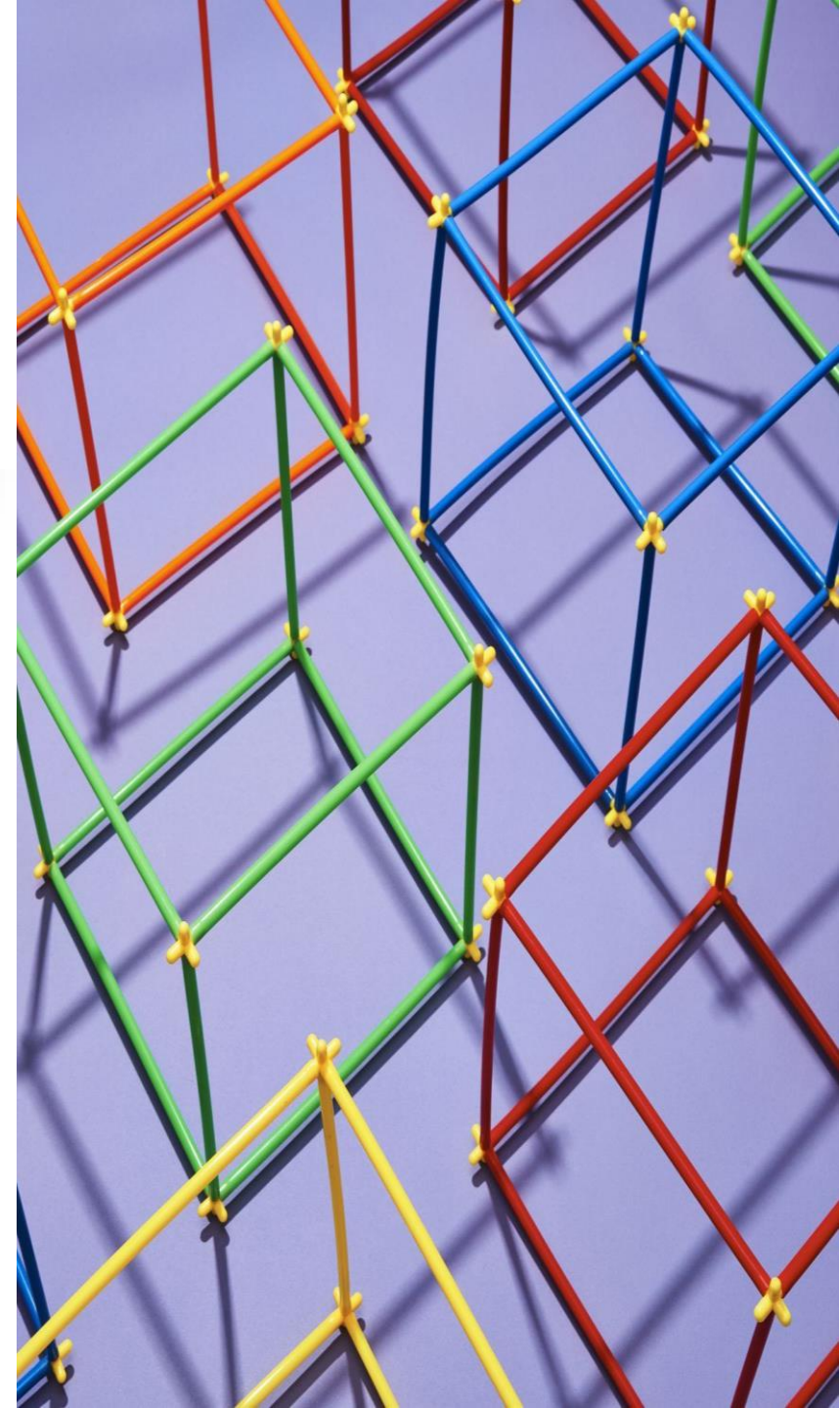# Understanding C++ Syntax

By: Jay Rupert L. Yasis

Learning Objectives

- Identify the parts of C++ program structure.

- Write the first program using C++ language.

- Value the importance of understanding the program structure.

Review of the previous lesson

Directions:

Identify what part of C++ Integrated Development Environment is described in the given statement.

It is a section of the IDE that contains the tools and commands.

It is the section of the IDE where the programmer writes the program's source code.

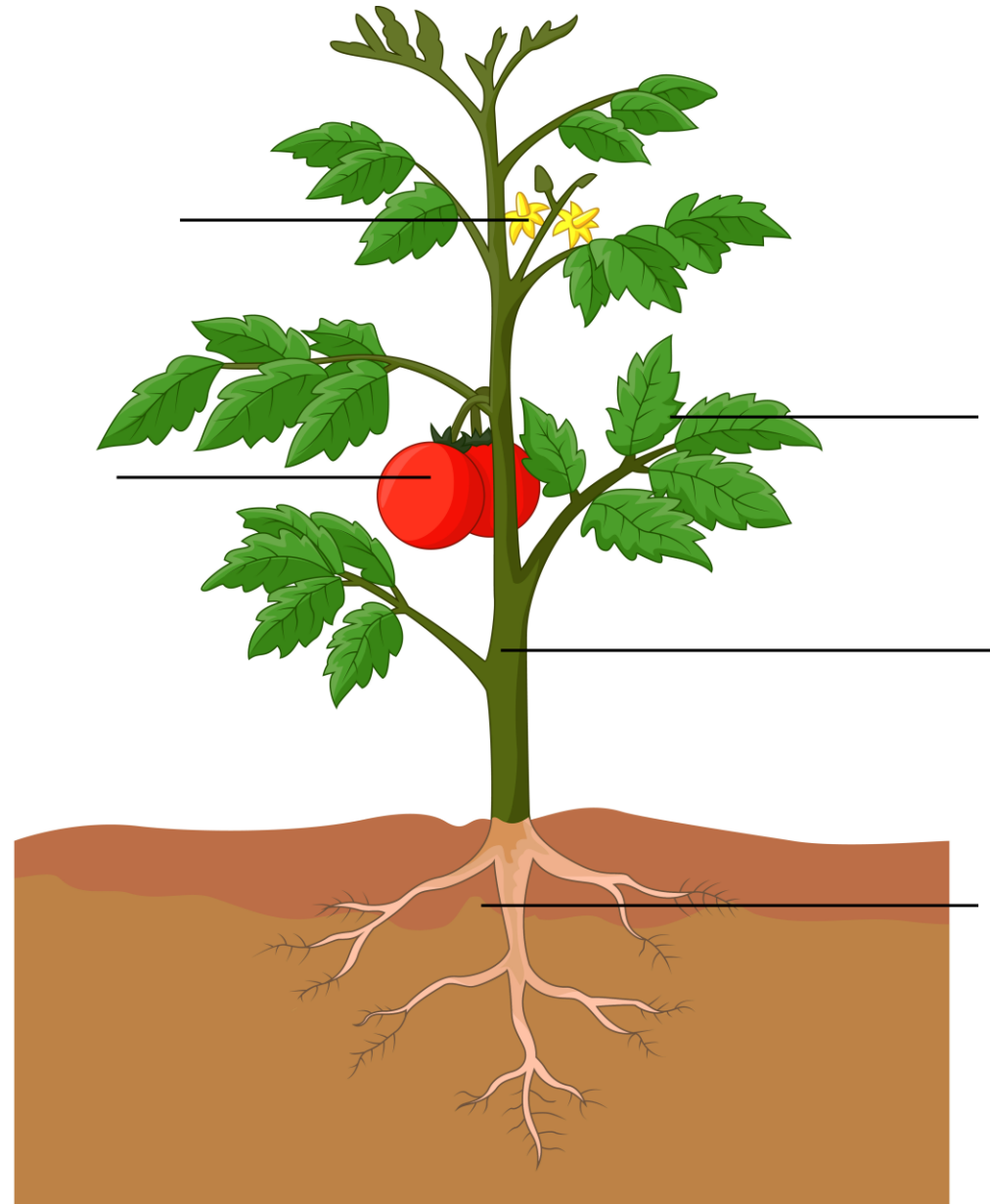It provides number of menu options for program development.

It is a feature of the IDE that displays the results of the debugger and compiler logs.
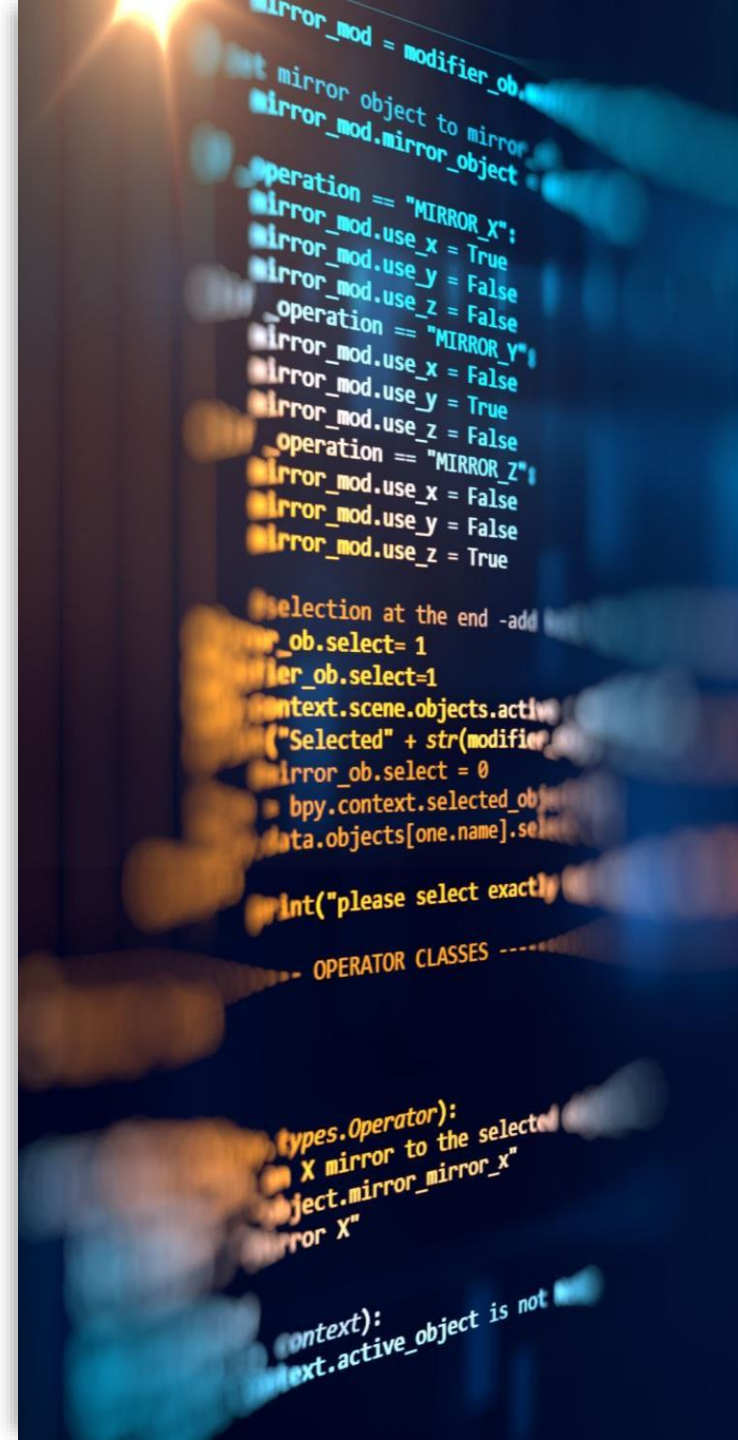
It is used to manage and control the size of the window.

Know the Parts

Tell the parts of the plants and its function.

What is a program syntax?

- It is the arrangement of words and phrases to create a well-formed program code.

- It refers to the rules that control the structure of the symbols, punctuation, and words of a programming language.

C++ Program Structure

Line 1: #include <iostream>

Line 2: using namespace std;

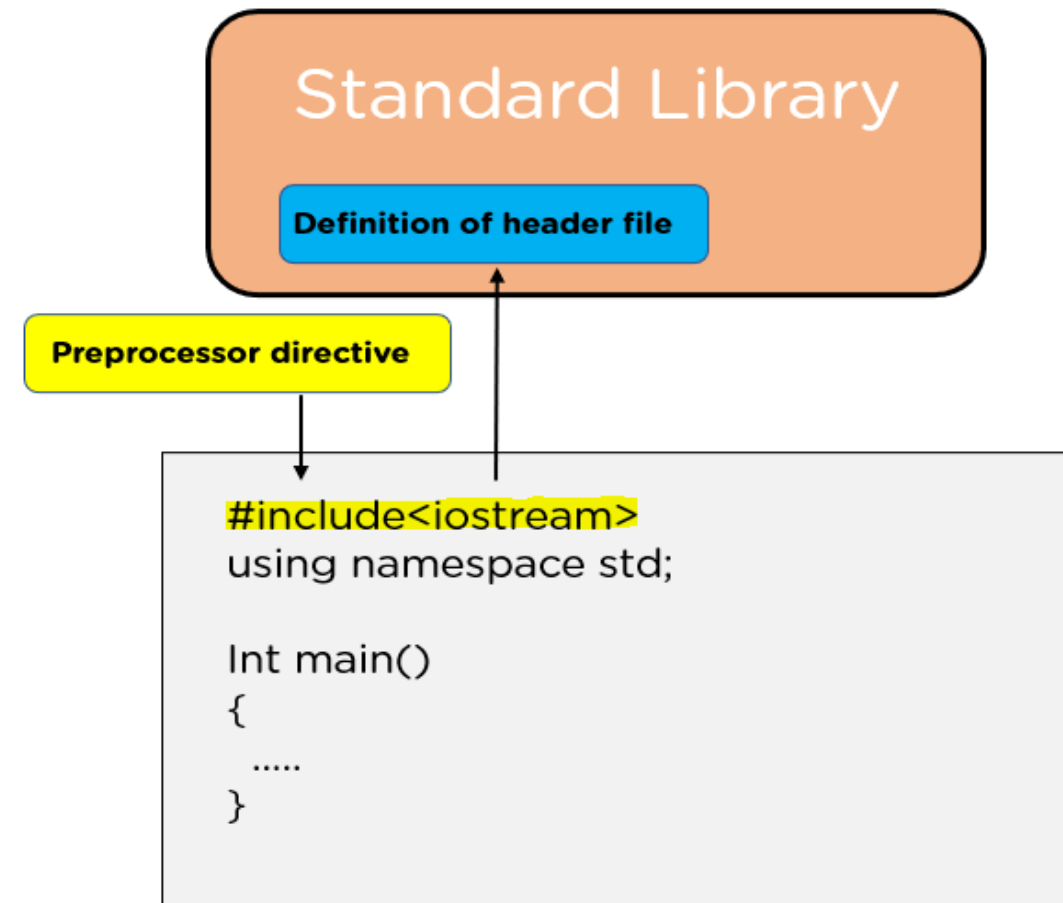Line 3:

Line 4: int main(){

Line 5: cout<<"Hello Sir Jay";
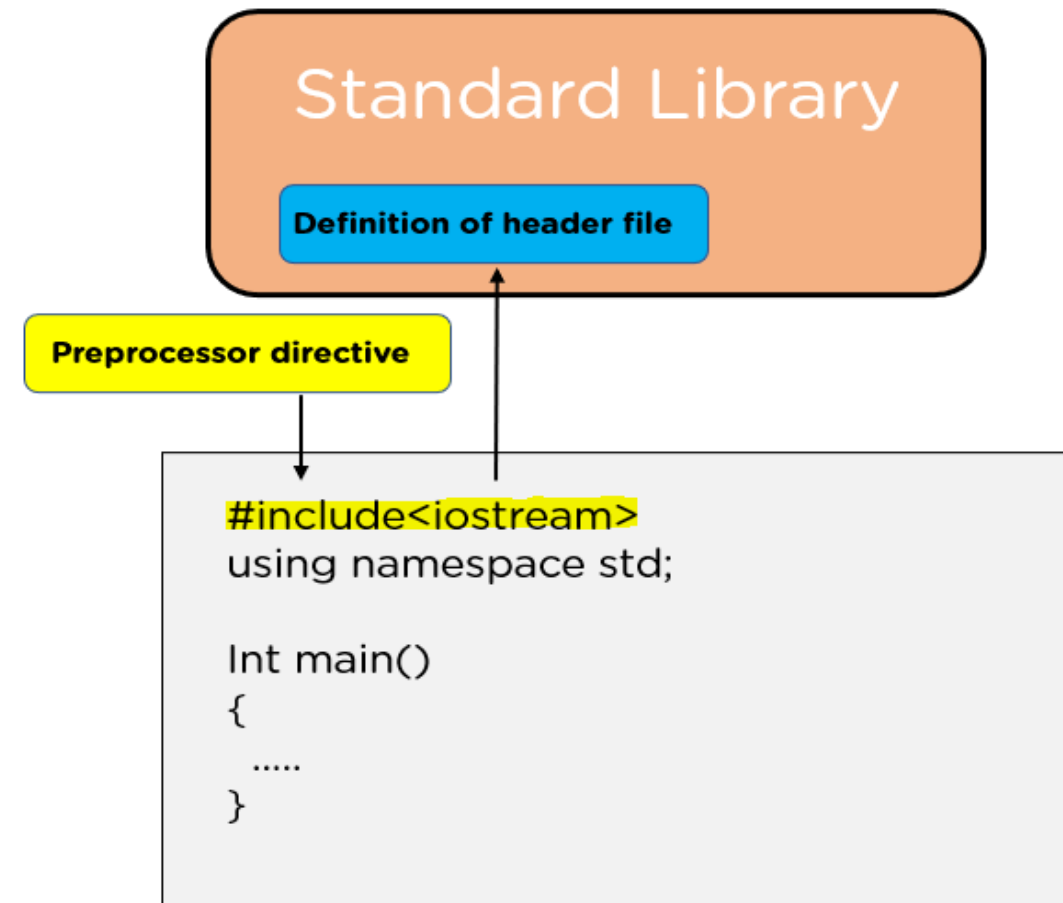
Line 6: return 0;

Line 7: }

#include <iostream>

A hash sign (#) are directives read and interpreted by what is known as the **preprocessor**.



Standard Library

Definition of header file

Preprocessor directive

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

Int main()
{
.....
}
```

#include <iostream>

- It is a header file library that lets us work with input and output objects.

Standard Library

Definition of header file

Preprocessor directive

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

Int main()
{
 .....
}
```

using namespace std;

It enables programmer to use names for objects and variables from the standard library.

Standard Library

Definition of header file

Preprocessor directive

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

Int main()
{
  .....
}
```
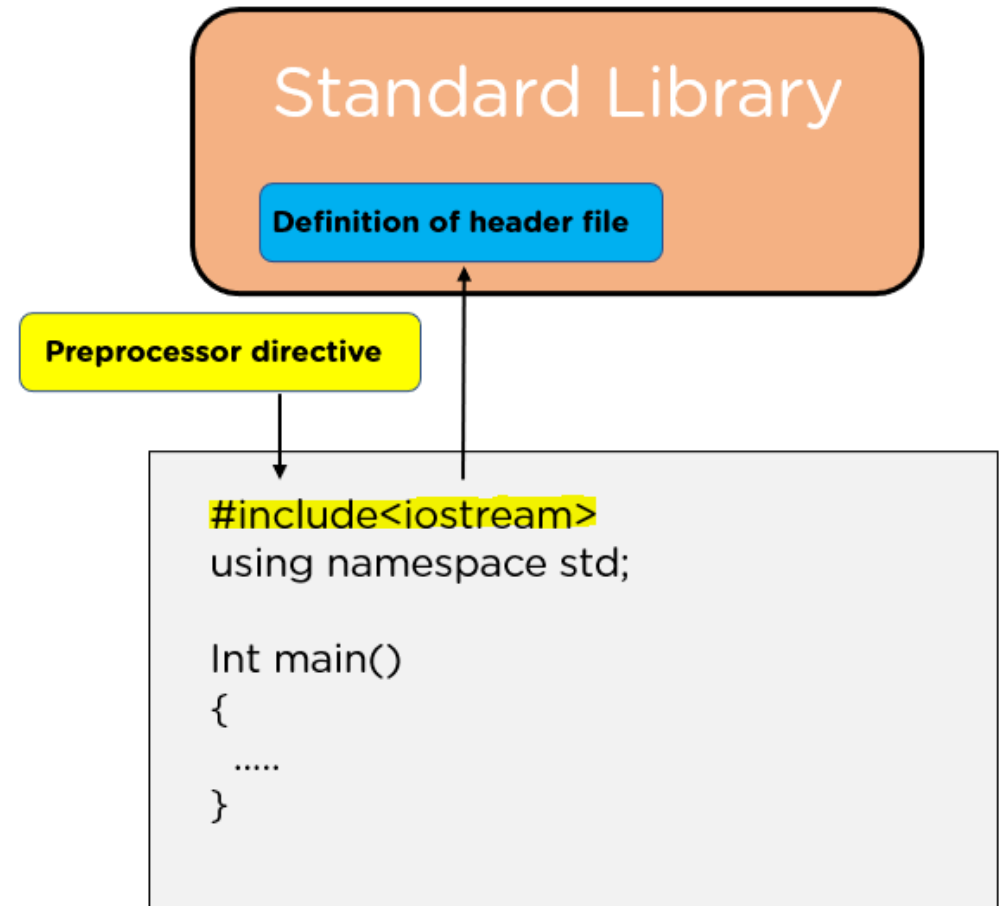
int main ()

This line initiates the declaration of a function. It is the function called when the program is run.

Standard Library

Definition of header file

Preprocessor directive

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

Int main()
{
  .....
}
```
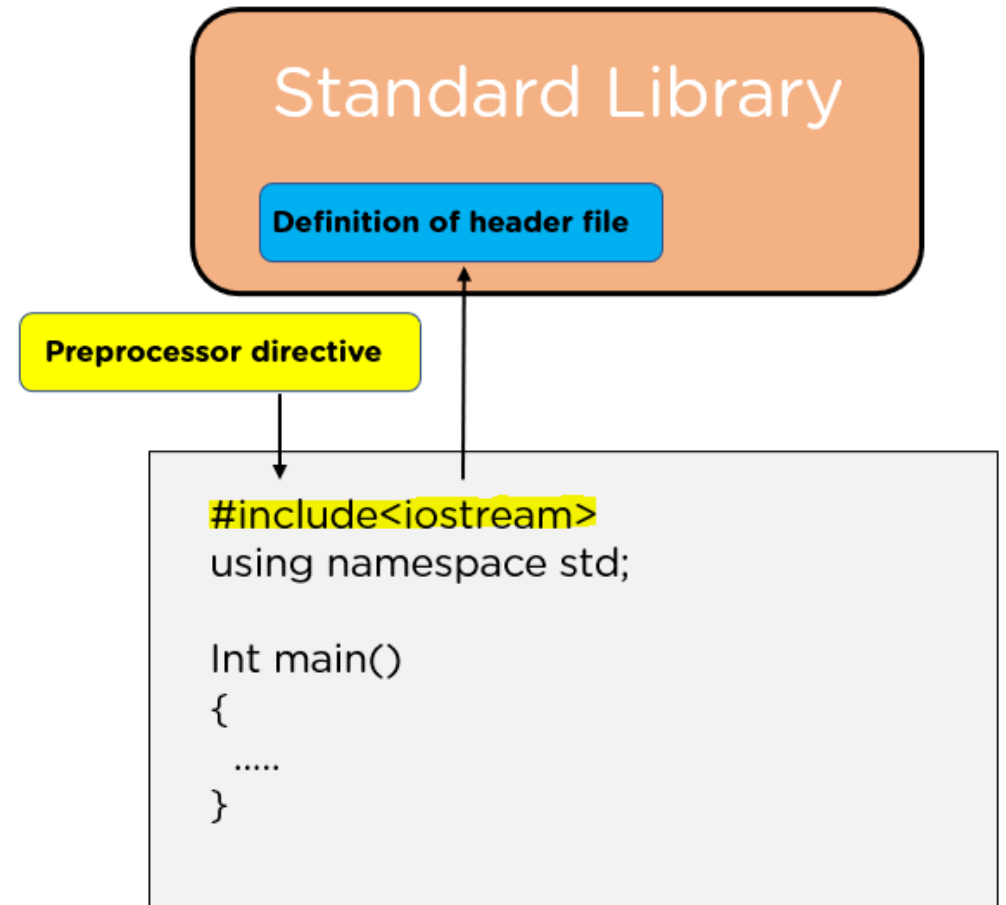
# int main ()

The execution of all C++ programs begins with the main function, regardless of where the function is actually located within the code.

Standard Library

Definition of header file

Preprocessor directive

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

Int main()
{
 .....
}
```
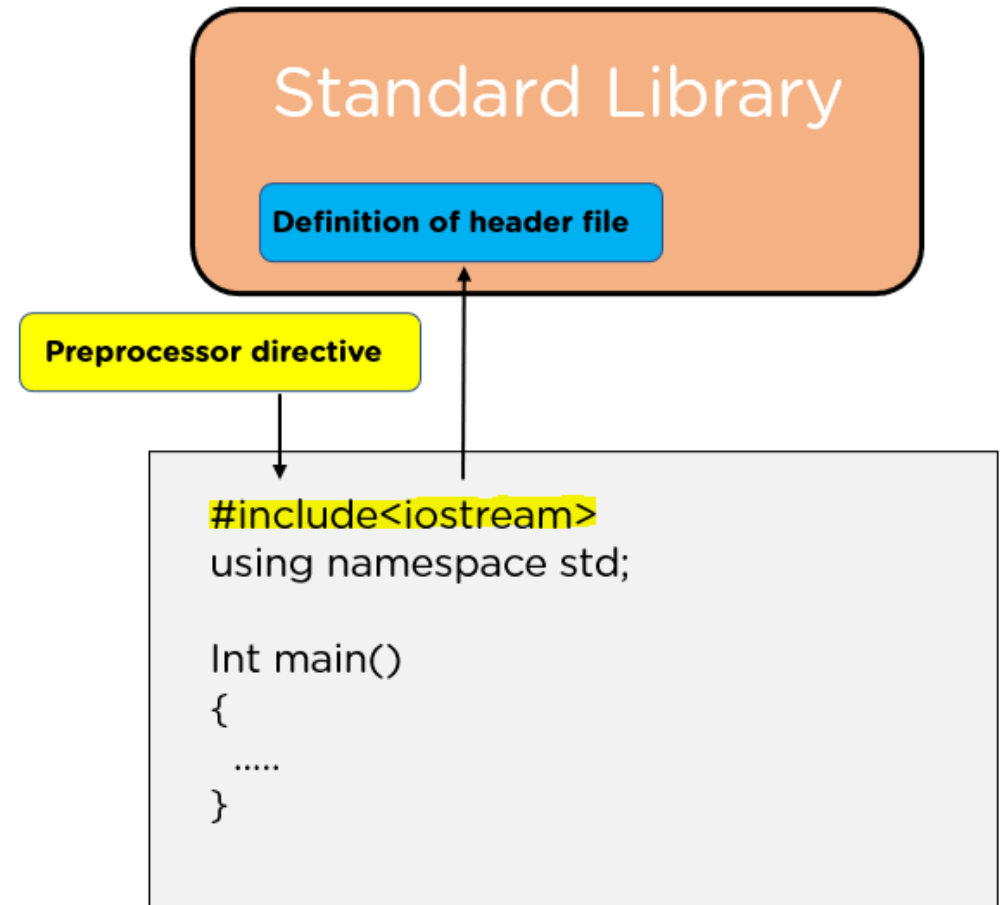
— { } open/close braces

The open brace indicates the beginning of the main function while the close brace indicates the end of the function.

Standard Library

Definition of header file

Preprocessor directive

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

Int main()
{
 .....
}
```
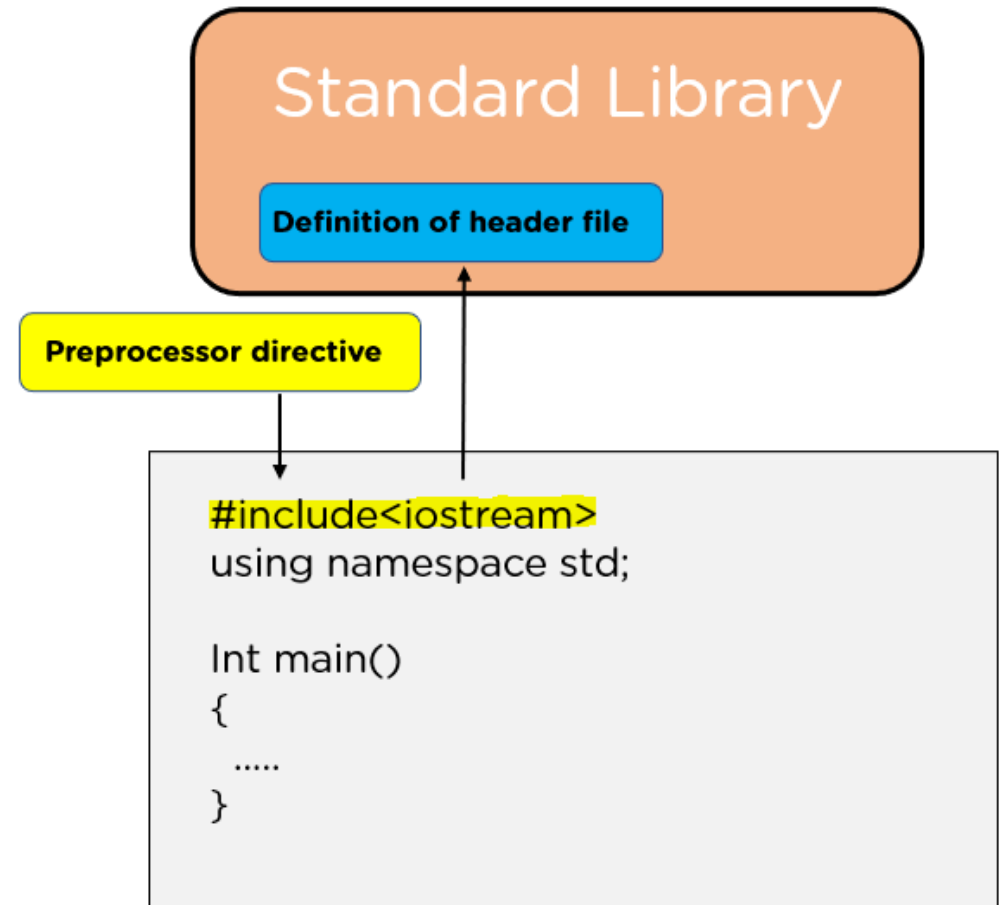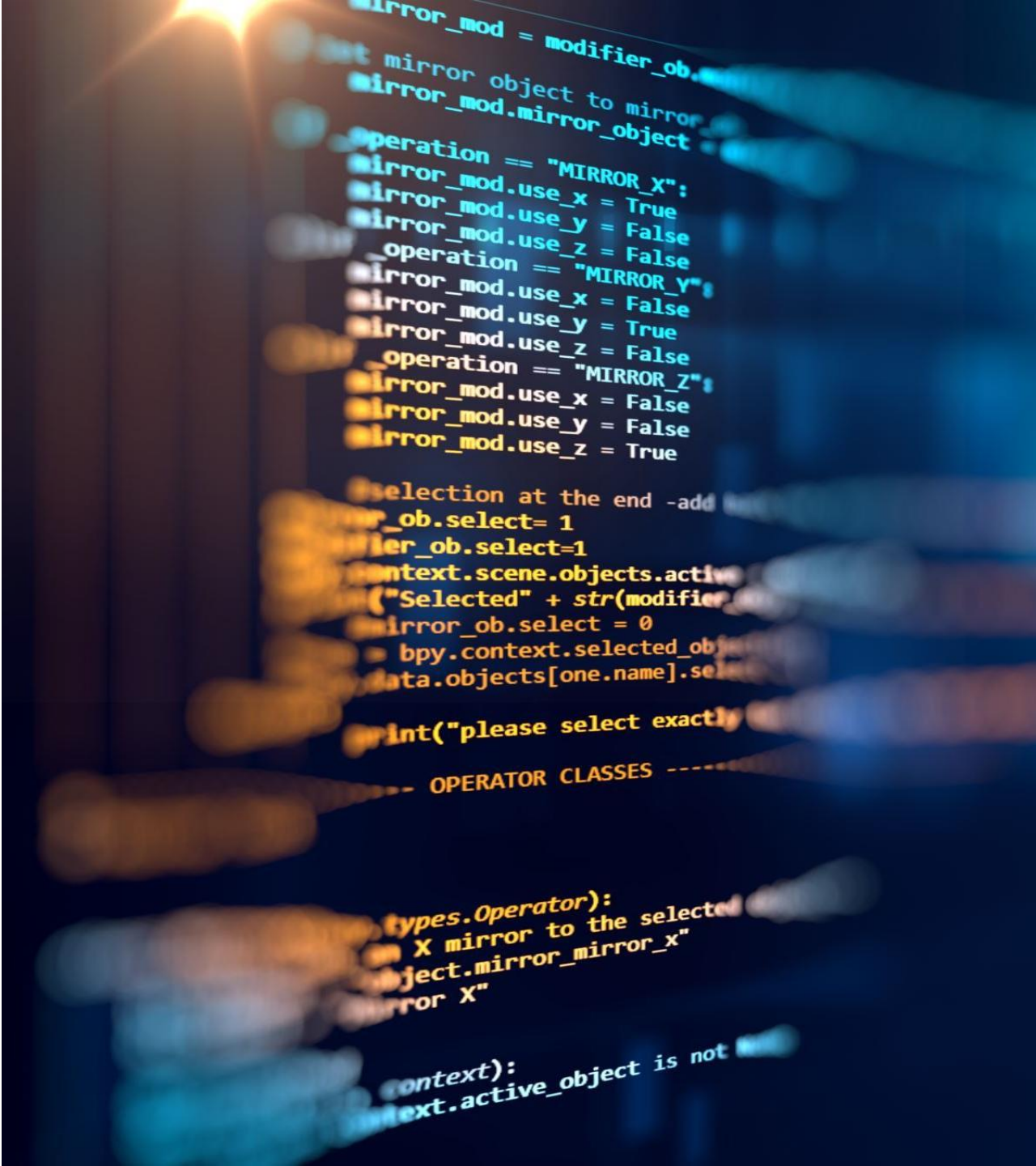
cout<< (character output)

- It is the object used to output/display/print the text. The << is the operator that signifies output.
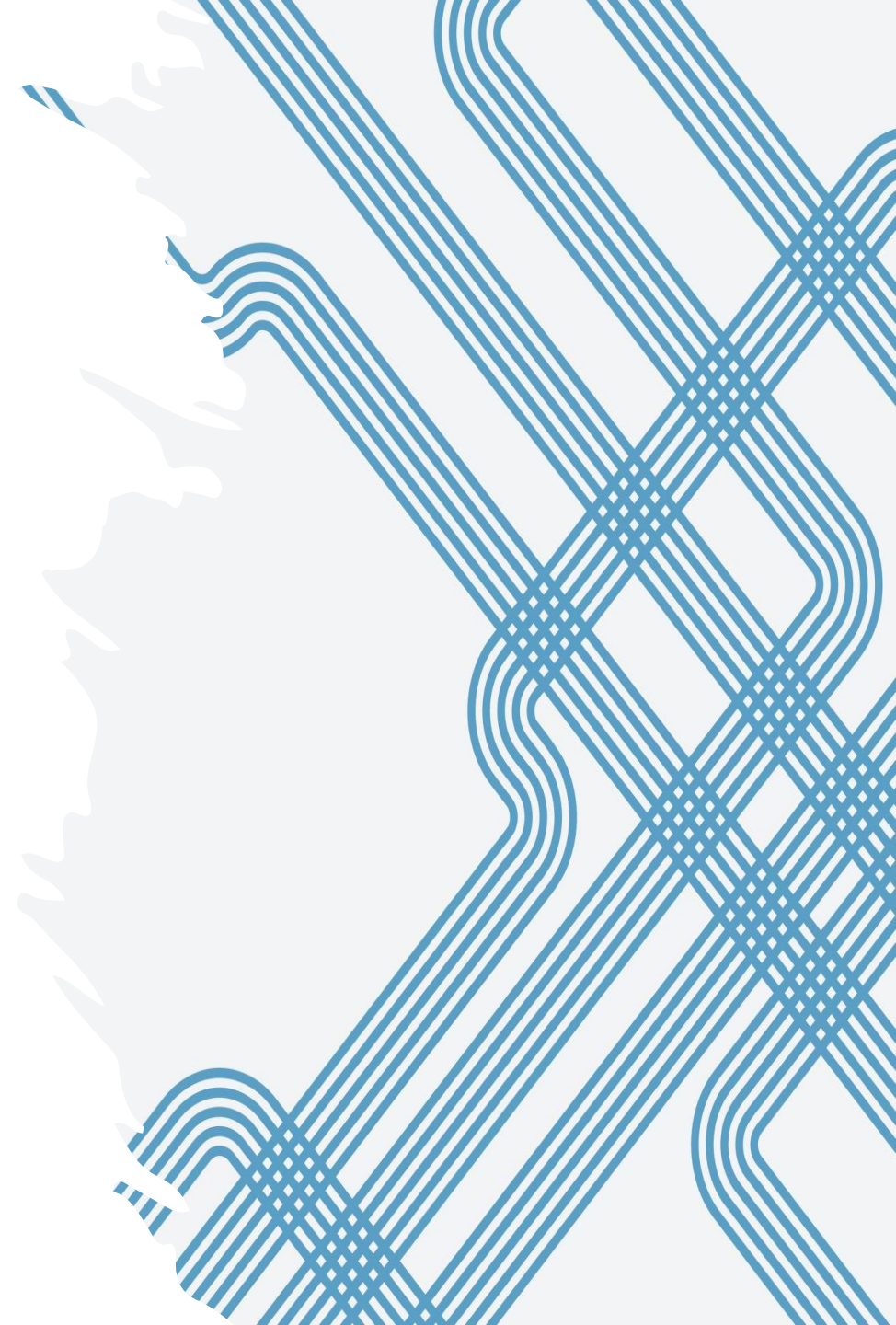
return 0;

It indicates the end of the operation of function and returning to zero value. In C++ return 0 is optional because the compiler automatically adds return 0.

Semicolon

It is called statement terminator that indicates the end of one logical entity.

Whitespace

- It is the term used in C++ to describe blanks, tabs, newline characters and comments.
- Whitespace separates one part of a statement from another.

Hands-on

Using the basic program structure of C++, write a program that prints "Happy Birthday!"
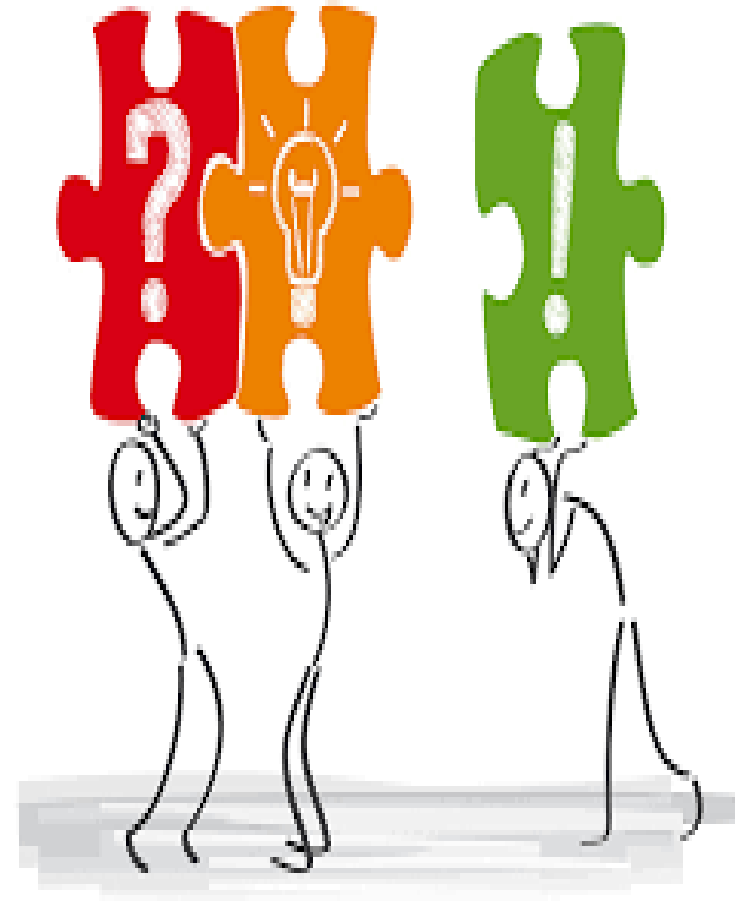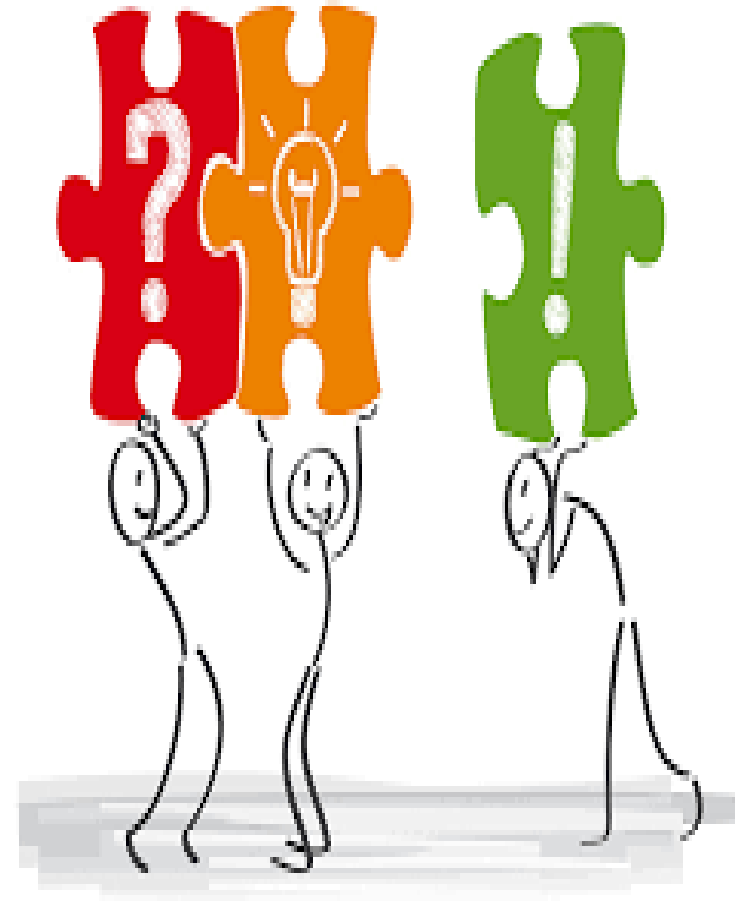
Formative Test

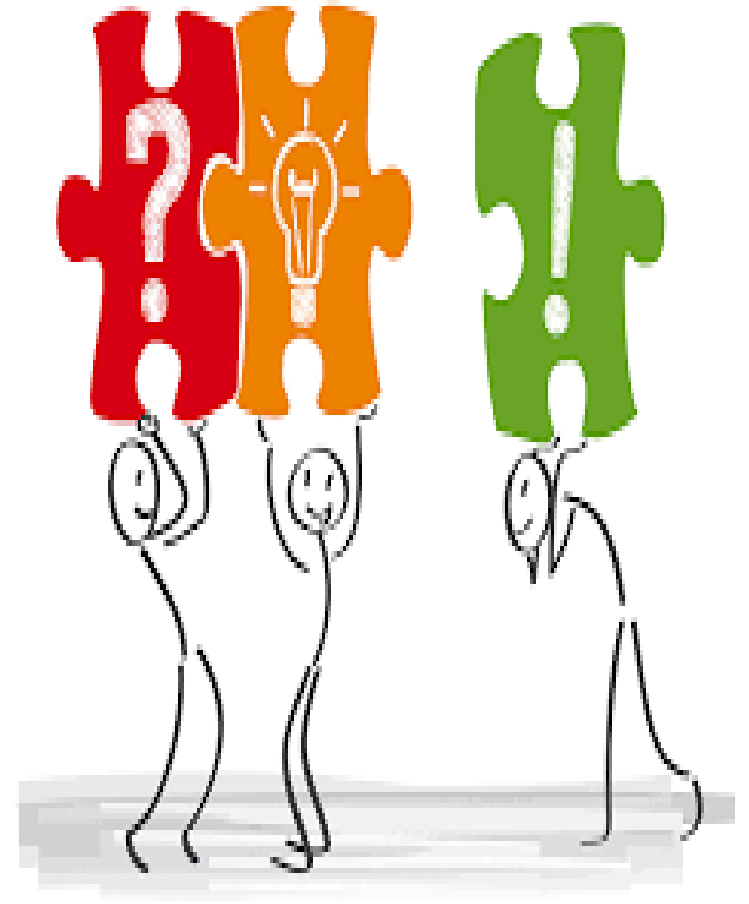Identify the parts of the C++ program structure describe in each statement.

What part of program structure is known as a header file library that lets you work with input and output objects.
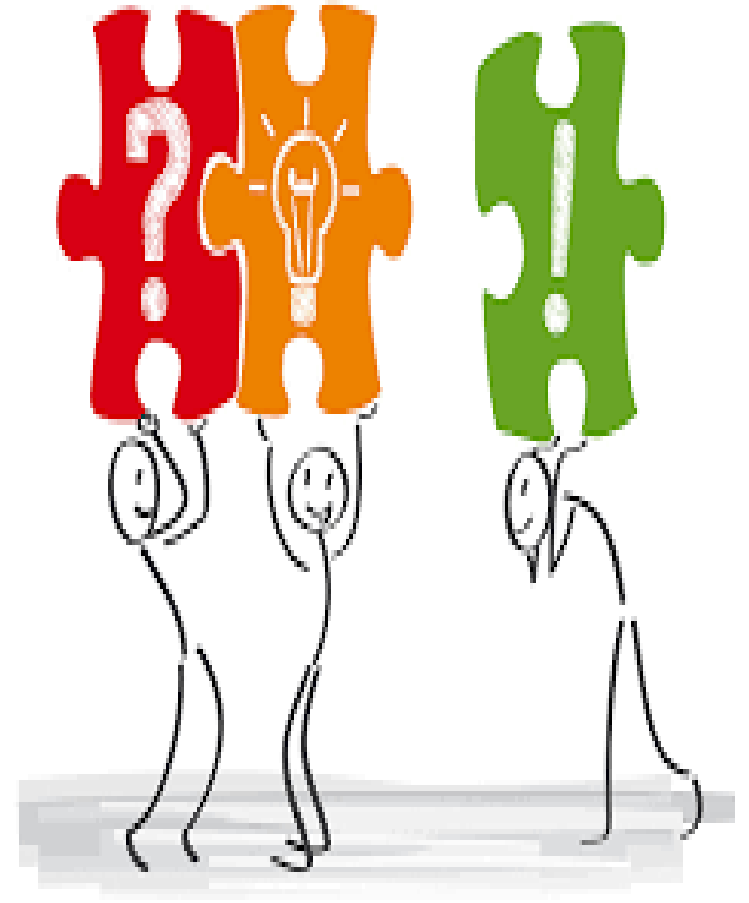
What part of the program structure enables programmer to use names for objects and variables.

What part of the program structure initiates the declaration of the function.

What is the symbol used as statement terminator that ends one logical entity?

What is the term used in C++ to describe blanks, tabs, newline characters, and comments?