

CS-1002 Programming fundamentals (CySec)

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Introduction to C++

1. Strictly typed
2. Static typed
3. Compiled language
4. Faster and resource and performance efficient code.
5. Designed to develop Operating system and embedded software
6. Curly brackets { ... } used for blocks
7. Every block have local scope
8. Collection of statements/Commands
9. Statement terminator “;”
10. Contains most of programming constructs
11. Best programming language for teaching and learning 😊

Starting C++

- **C++ statements**
 - *Statements are fragments of the C++ program that are executed in sequence*
- **Two types of statements**
 1. *Simple statements*: Single line of code
 2. *Compound Statements*: Compound statements are multiple lines or curly braces-enclosed sequences of statements called blocks.

Simple statements

1. Declaration Statement
2. Assignment statement
3. Expression statement
4. Labels

Compound statements

1. Selection statements

1. If statement
2. If-else
3. Nested if else
4. Switch

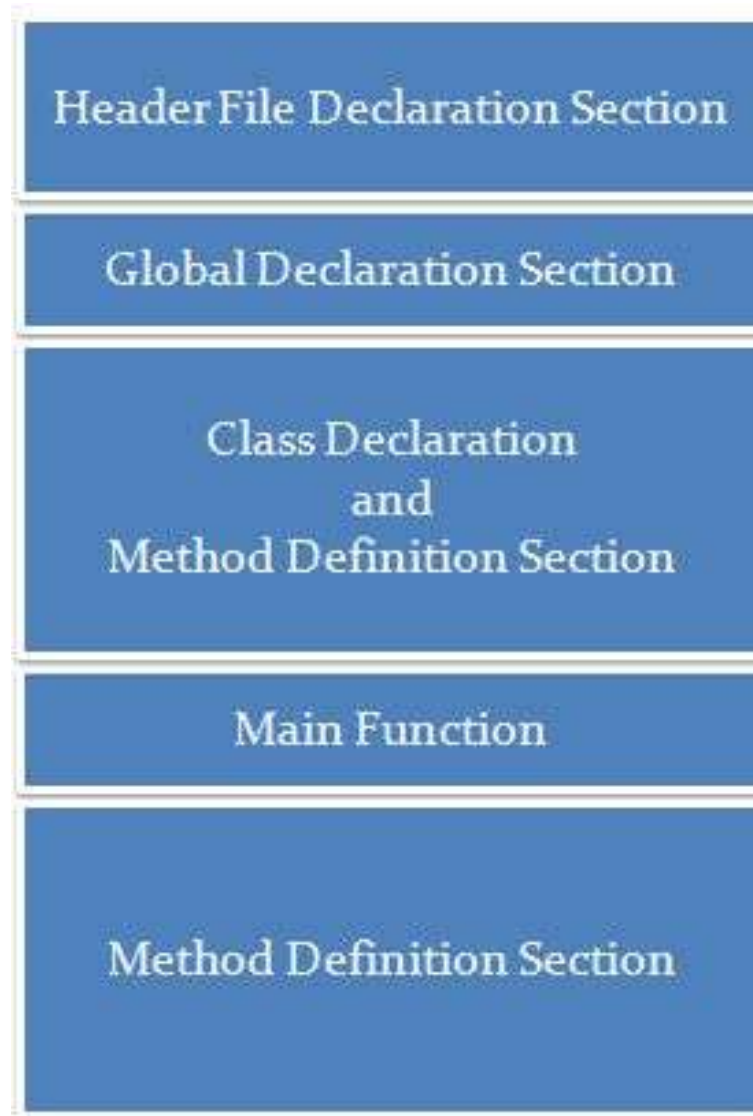
2. Iteration Statements

1. While loop
2. Do while loop
3. For loop

3. Jump statements

1. Break
2. Continue
3. Return
4. Goto identifier

Structure of C++ Program



Writing first Program in C++

// This is a simple C++ program. Call this file Sample.cpp.

#include <iostream>

using namespace std;

int main()

{

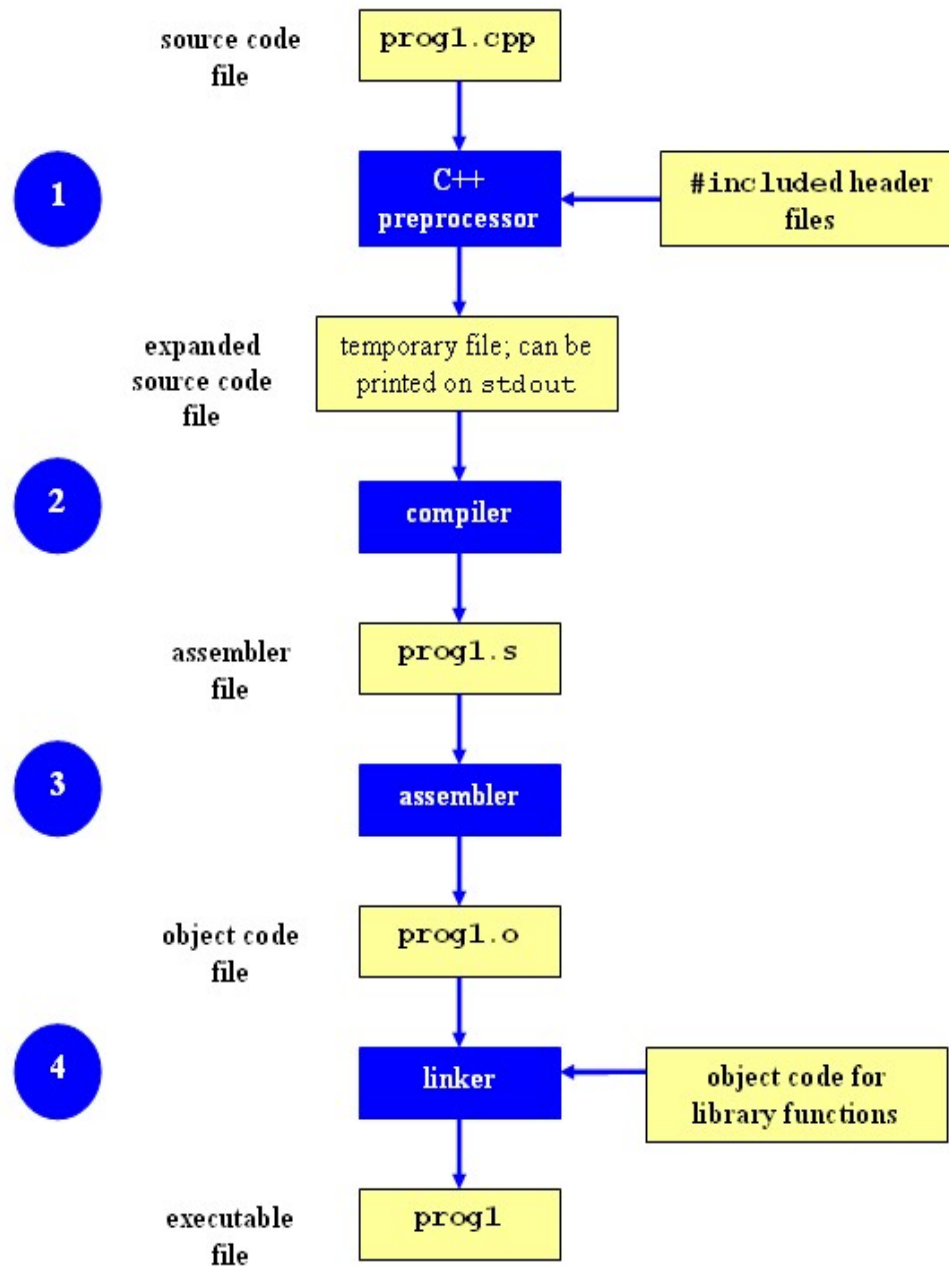
cout << "C++ is powerful Programming Language."<<endl;

cout<<"Welcome to Programming Fundamentals";

return 0;

}

How C++ program is Actually Executed



cout and cin

- Objects of `iostream` class
- Used for taking input (`cin`) and for output(`cout`)

Home work

- Read following Topics from Chapter # 2 (page 27 – 43)
 - 2.1 The Parts of a C++ Program
 - 2.2 The cout Object
 - 2.3 The #include Directive
 - 2.4 Variables and Literals
 - 2.5 Identifiers
- Read Topic 3.7 **Formatting Output** (page 111 onwards).

Questions (???)

Thanks 😊