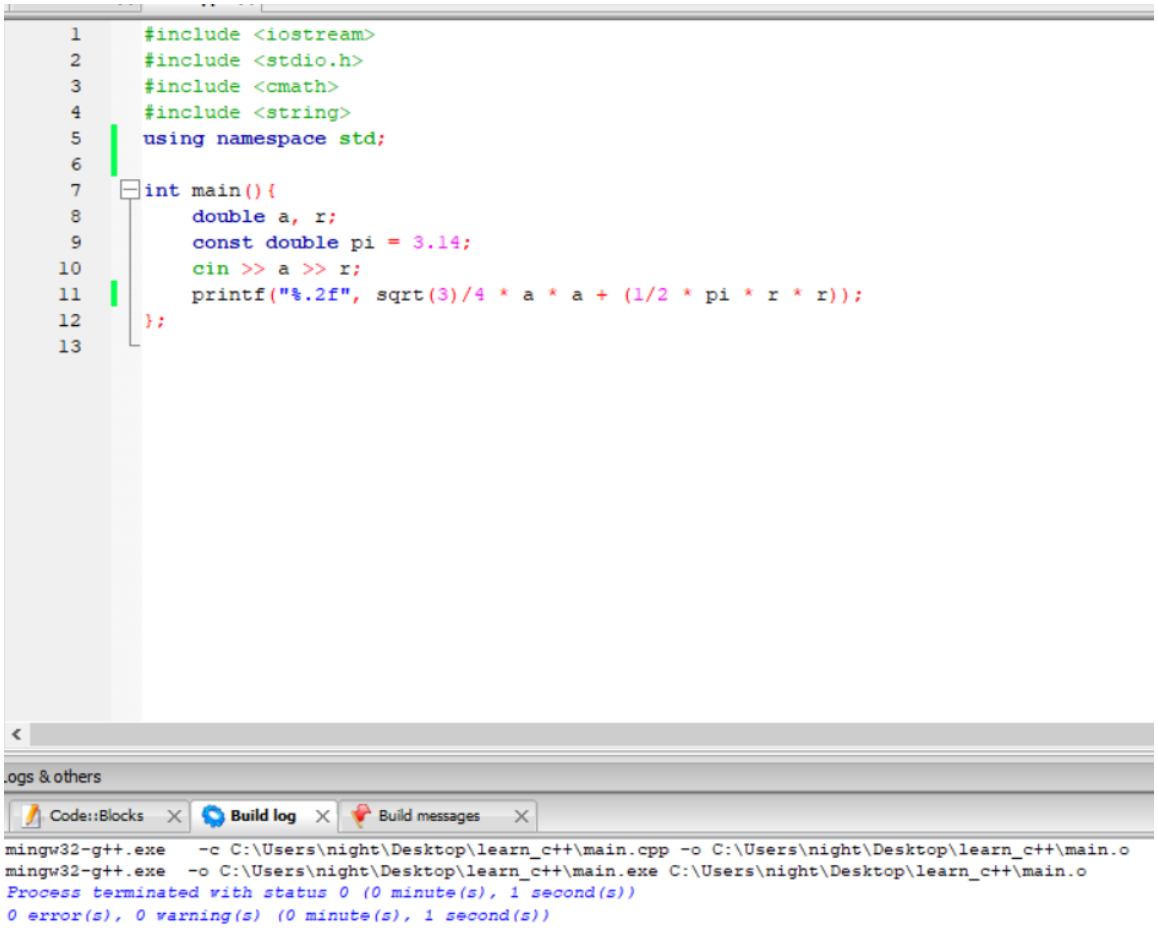
ASSIGNMENT 01

1. To compile a C/C++ program, firstly, we must have a source code. Then, there are three stages we need to go through:

- Pre-processing: to carry out the program's behaviors.
  - Remove comments in the program
  - Expand the macros and header so that it is ready to be compiled.
- Compiling: to convert the source code into assembly language so that the computer can understand.
  - Return warning about any errors.
  - If an error is found, then the compilation process will be terminated.
- Linking: to link all the function calls and produce an executable or a library.
  - Link to any external libraries we want to use in the program.
  - If no errors occur, we will have an executable file or library by the compiler.

3. I installed MinGW(GCC) in Code::Blocks. I wrote a source file, then I compiled it. It showed the compile result in the Build log.



```
#include <iostream>
#include <stdio.h>
#include <cmath>
#include <string>
using namespace std;

int main(){
    double a, r;
    const double pi = 3.14;
    cin >> a >> r;
    printf("%.2f", sqrt(3)/4 * a * a + (1/2 * pi * r * r));
};
```

```
ogs & others
Code::Blocks | Build log | Build messages
mingw32-g++.exe   -c C:\Users\night\Desktop\learn_c++\main.cpp -o C:\Users\night\Desktop\learn_c++\main.o
mingw32-g++.exe  -o C:\Users\night\Desktop\learn_c++\main.exe C:\Users\night\Desktop\learn_c++\main.o
Process terminated with status 0 (0 minute(s), 1 second(s))
0 error(s), 0 warning(s) (0 minute(s), 1 second(s))
```