

COMP 345 Fall 18 Week 2

Haotao Lai (Eric)
h_lai@encs.concordia.ca



Lab Instructor

Section: B-X 9999 --W---- 20:30 22:20 H929

Name: Haotao Lai (Eric)

Office: EV 8.241

Email: h_lai@encs.concordia

Website: <http://laihaotao.me/ta>



Assignment

There are total **4 assignments** in this course, it requires **significant programming** work. The assignment should be done in **team**.

All the assignment should be submit via [EAS](#). Any late submission will not be accepted unless an extension is given by the course instructor.

Also demo is required for the assignments, you can only demo what you submit to the system for the fairness purpose. Demo instruction will be given after the due day, please check your email frequently at that time. You will need to book a timeslot with the marker and the process will respect the first come first serve policy.



IDE

There are different kind of IDE for C++ development, some of them is free and some of them need to buy the license.

Possible choices:

- Visual Studio
- Eclipse with C++ development toolkit
- Xcode
- Clion (from JetBrains, can use it free as a student)
- Notepad (technically speaking you can, but not a good choice ...)



IDE

If you have different kinds of machine and want to use them in a unique format, you may need some cross-platform build tools like CMake, but the how to use these kind of tool **is NOT the objective of this course**.

If you are interested can check the following out:

- Cmake official site: <https://cmake.org/>
- A tutorial wrote by me: https://github.com/laihaotao/cmake_tutorial



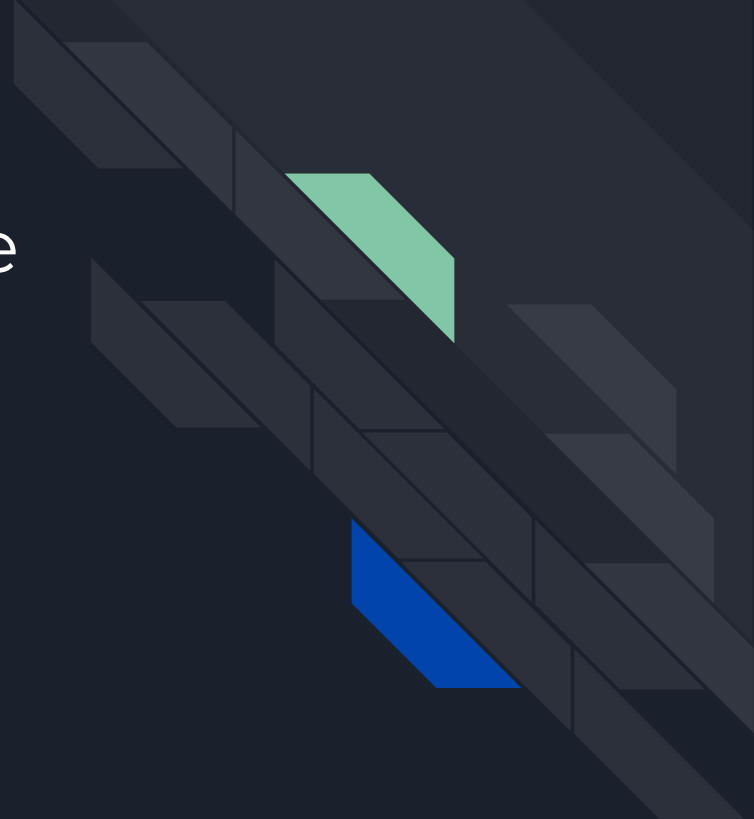
First Example

```
#include <iostream>

using namespace std;

int main() {
    cout << "Hello World!" << endl;
    return 0;
}
```

Try to compile and run the
code in your machine





Windows

You should be able to find an icon with a green triangle in the menu, after clicking it will do the compilation and run the executable.



Linux / Mac

Make sure you have a compiler install and open a terminal change the working directory to where the source file located.

```
g++ -o EXECUTABLE_NAME SOURCE_FILE_NAME
```

Or if you want to separate the compilation and linking process

```
g++ -c src_file1.cpp
```

```
g++ -c src_file2.cpp
```

```
g++ -o exe_file src_file1.o src_file2.o
```



Work with header file

```
#ifndef COMP345_POINT_H
#define COMP345_POINT_H

#include <iostream>

using std::cout;
using std::endl;

class Point {
public:
    Point(int x=0, int y=0) : x(x), y(y) {
        cout << "Point(" << x << ", " << y << ") is created." << endl;
    }

    ~Point() {
        cout << "Point(" << x << ", " << y << ") is destroyed." << endl;
    }

    void toString() {
        cout << "Point(" << x << ", " << y << ")" << endl;
    }

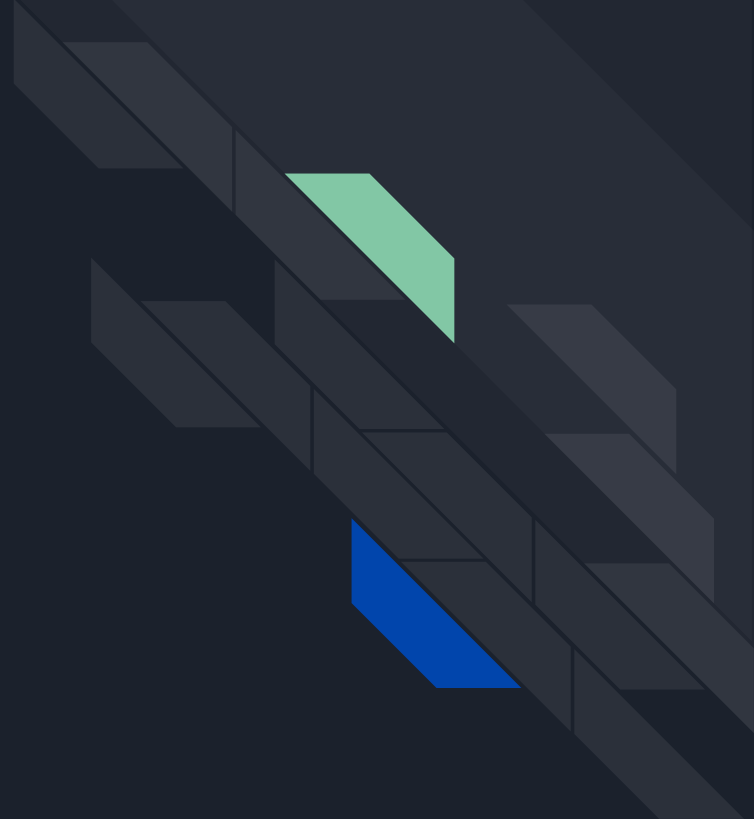
private:
    int x, y;
};
#endif // COMP345_POINT_H
```



How to use the header file

```
int main() {  
    Point p1(1, 2);  
    p1.toString();  
  
    Point p2(2, 3);  
    p2.toString();  
    return 0;  
}
```

Try to define a header file
and use it in a driver file



Question?

