



Introduction

TO THIS CLASS

Class Info Part 1

- ▶ As with all Friday electives, you don't need to treat this class like a core class if you don't want to, and you are graded based on participation.
- ▶ There is a discussion board on blackboard; you can use it to ask questions and share interesting things during the week.
- ▶ All notes and whatnot will be on blackboard as well.



Class Info Part 2

- ▶ During each class, I'll usually lecture for 10-20 minutes or so, depending on the complexity of the topic.
- ▶ You won't need to take notes, as notes will be available on blackboard, including this intro presentation.
- ▶ After we learn a new concept, some time will be spent experimenting, and doing programming exercises. During this time, feel free to look over the notes if you missed anything, and of course ask questions.
- ▶ Based on the amount of time left, we'll move on to another topic, and I will lecture again. You get the picture.
- ▶ At the end of the class, we can discuss what everyone has been working on.



Class Info Part 3

- ▶ The schedule (and more or less everything) is subject to change depending on how the semester plays out, but...
- ▶ We'll cover a wide variety of topics, so we will not be spending a ton of time on any one thing, unless desired.
- ▶ There will be 2-3 projects where you can put to use what you've learned so far.
- ▶ Next semester, there are several options of what we can do. We'll discuss it towards the end of this semester.
- ▶ Now, let's jump right in!



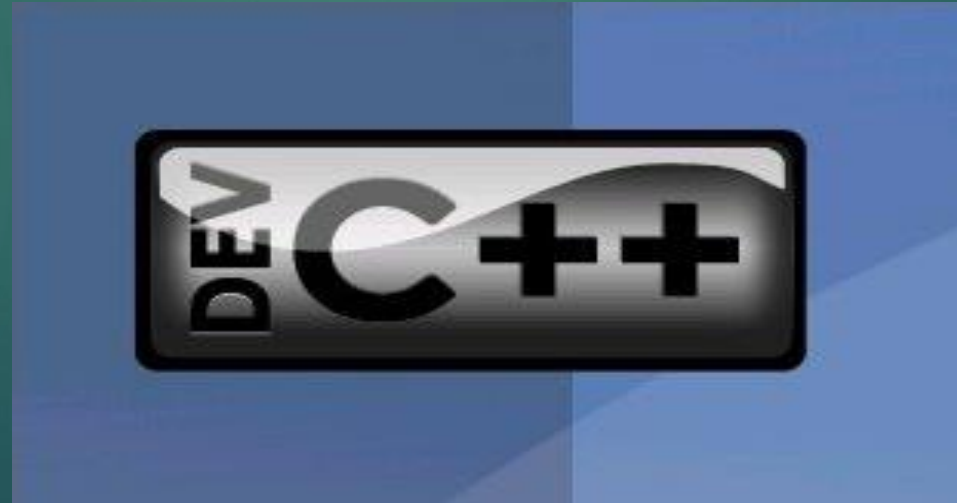
Why C++?

- ▶ One of the most popular languages in the world, and is widely used in the software industry.
- ▶ Easy to learn.
- ▶ Powerful.
- ▶ You wanted it.



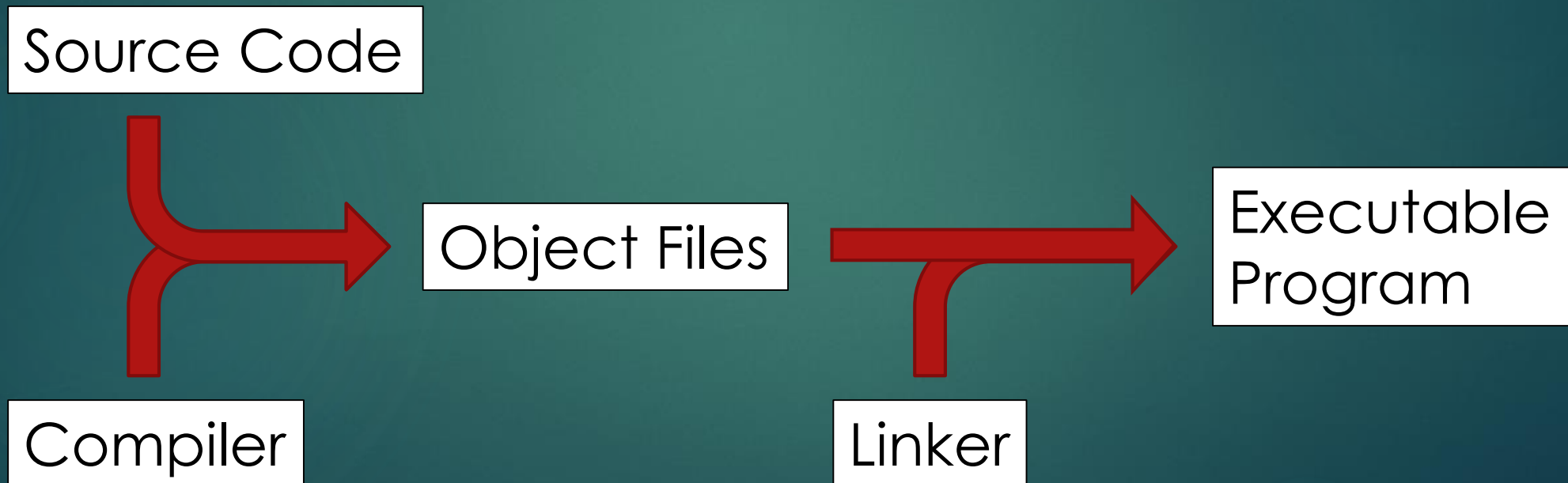
Coding in C++

- ▶ There are many different compilers for C++, but for this class, we'll be using Dev C++, which is an easy to use, lightweight IDE, or integrated development environment, that also includes a compiler. There are many other IDE's, but Dev C++ is the best for now.
- ▶ If you'd like to use Dev C++ on your own computer, there is a link on blackboard. Unfortunately, it only supports windows.



Code in General Part 1

- ▶ Programming is basically just writing instructions for a computer to make it do what you want. Your code is called the source code.
- ▶ This code is then translated through the below process into a file that a computer can run.



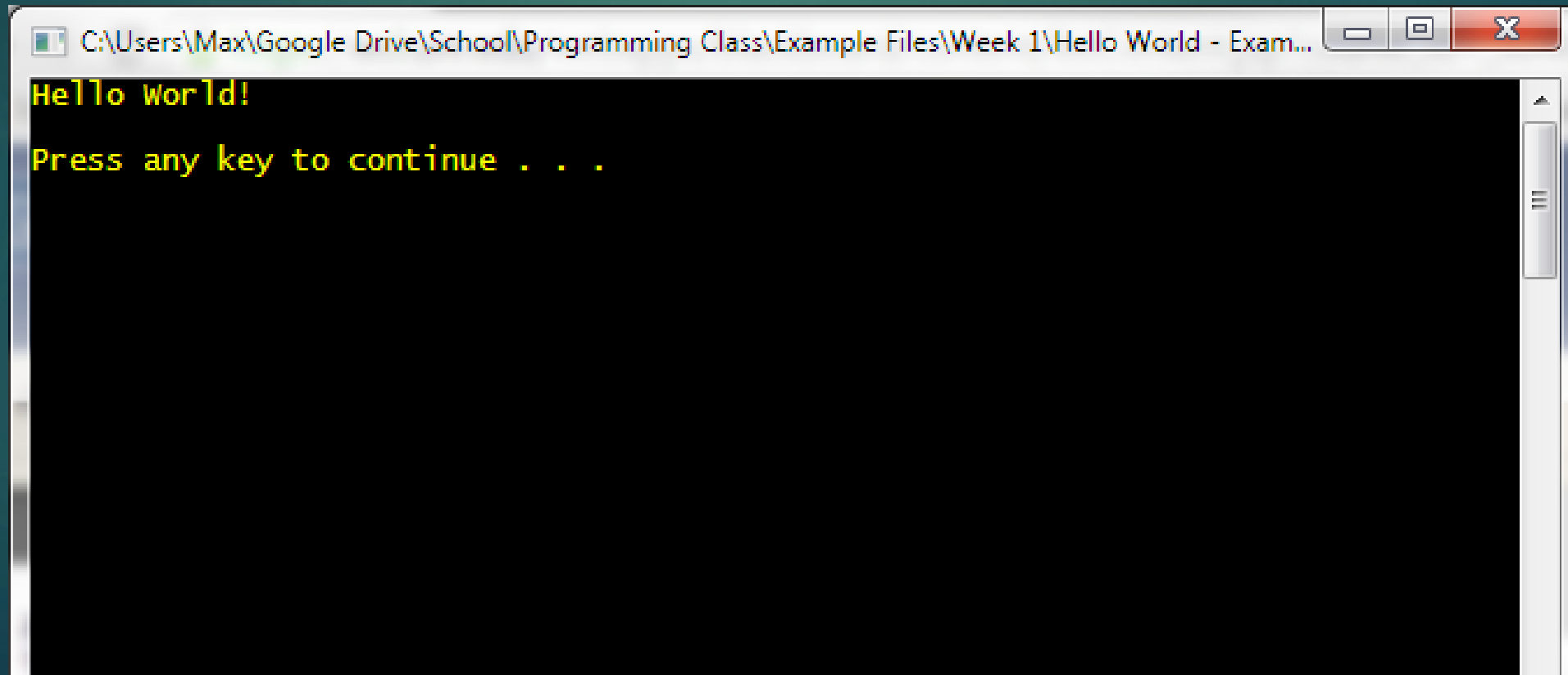
Code in General Part 2

- ▶ Then, when you run your program, your computer will simply go through your program, line by line, and execute the instructions you gave it.



Hello World

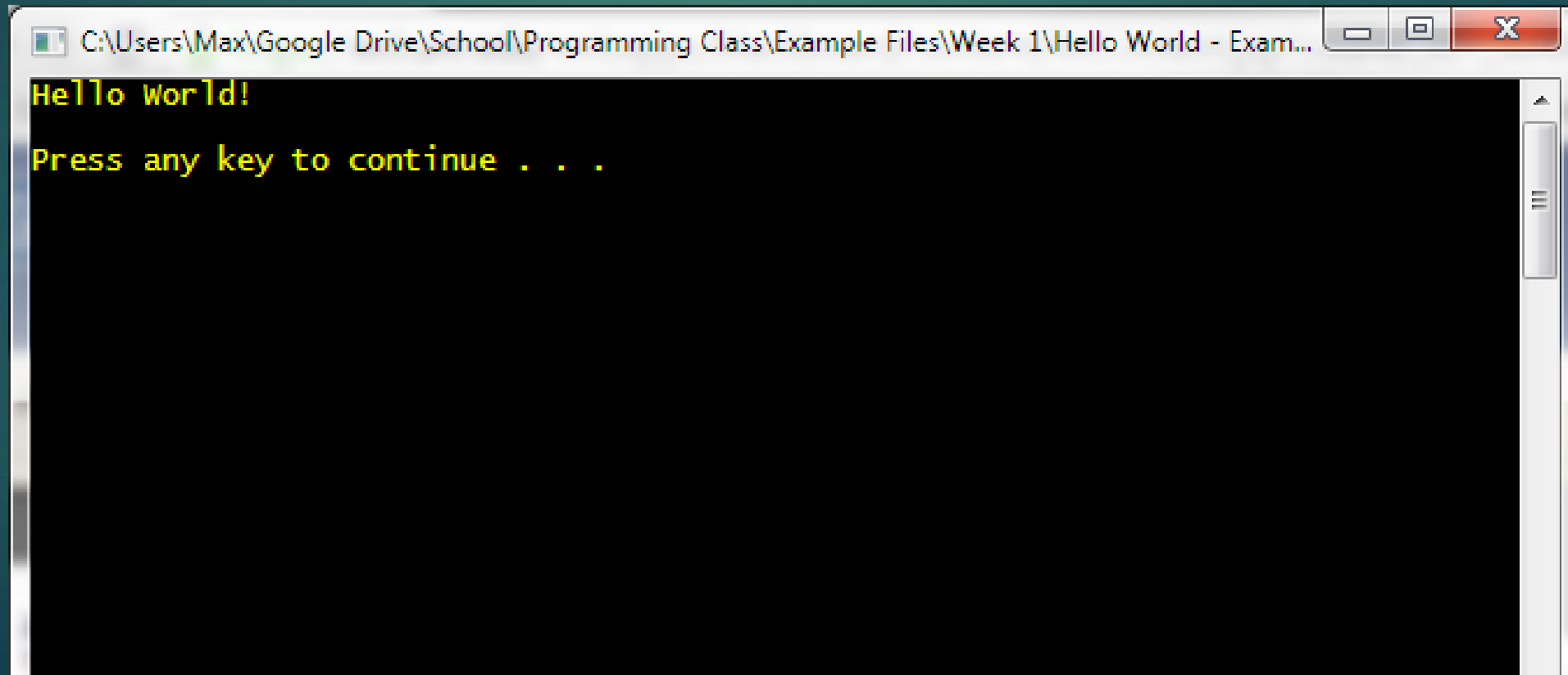
- ▶ “Hello World” is a simple program that one traditionally writes when trying a programming language for the first time. It also serves to make sure the development environment is working properly.
- ▶ The program simply outputs “Hello World!” to the screen.

A screenshot of a Windows command prompt window. The title bar at the top shows the file path: C:\Users\Max\Google Drive\School\Programming Class\Example Files\Week 1\Hello World - Exam... with standard minimize, maximize, and close buttons. The window has a black background with yellow text. The first line of text is "Hello World!". The second line is "Press any key to continue . . .".

```
C:\Users\Max\Google Drive\School\Programming Class\Example Files\Week 1\Hello World - Exam...  
Hello World!  
Press any key to continue . . .
```

Hello World

- ▶ Now, you try it! Dev C++ should already be installed on your computers.
- ▶ If you have questions, ask.
- ▶ Note: from here on, I won't be making presentations; I'll just explain the topics and provide notes.



A screenshot of a Windows command prompt window. The title bar shows the file path: C:\Users\Max\Google Drive\School\Programming Class\Example Files\Week 1\Hello World - Exam... The window has standard Windows window controls (minimize, maximize, close). The command prompt displays the text "Hello World!" on the first line and "Press any key to continue . . ." on the second line. The text is in a yellow-green color on a black background.

```
Hello World!  
Press any key to continue . . .
```