

Topic 1.1: Introduction to Algorithms, Programming, and Compilers

Hands-On Lab — Type and Run Your First Program

A hands-on lab. You will type a real Java program, run it, and watch what happens — including what the compiler does when you break it on purpose. Work at a computer with any Java editor or IDE.

WHY THIS MATTERS

Labs like this build toward the hands-on programming hours every AP Computer Science A student completes, and they train you to write and run code without relying on autocomplete — which the exam's code editor does not provide.

What you need: a computer with a Java environment your teacher has set up — for example a desktop IDE (such as BlueJ, IntelliJ IDEA, or Eclipse), Visual Studio Code with the Java extension, or a free browser-based Java compiler. Any of these lets you type a program, compile it, and run it. If you are not sure which to use, ask your teacher.

Step 1 — Type it exactly, then run it

Type this program exactly as shown — watch the capital letters, the quotes, the braces, and the semicolon — then run it.

ClubWelcome.java

```
public class ClubWelcome {  
    public static void main(String[] args) {  
        System.out.println("Welcome to the Riverside Coding Club!");  
    }  
}
```

Predict the output of this program: _____

Actual output (after running): _____

Did your prediction match? YES / NO — if not, what did you miss?

Step 2 — Break it on purpose

Delete the semicolon at the end of the `System.out.println` line and try to run the program again. Write down exactly what the editor or compiler tells you, and whether the program runs at all.

What type of error did you just create? _____

Step 3 — Fix it and make it yours

Put the semicolon back. Then change the welcome message inside the quotes to your own text, run it again, and record the new output.

Predict the output of your edited program: _____
Actual output (after running): _____
Did your prediction match? YES / NO — if not, what did you miss?

Wrap-up

In one or two sentences: which step's error was caught by the compiler before the program could run, and how did you know?