

For Next Day 4 – Isaac Shoebottom

Write a short paragraph about how to reduce errors as you code:

One method is to test your program in small modules. Keeping your code smaller in between tests helps reduce the amount to test, and helping you figure out what might have gone wrong. Another method is to talk to someone or something about what you're doing, known as "rubber ducky" debugging. The final piece of knowledge is to know the typical errors of the language and know that even you are prone to making them. Double check and think through the stuff that everyone makes a mistake on once.

Write a short paragraph about ways to fix bugs already in your code:

A very simple way to find errors is to simply use `printf()` statements to check values that you expect to know the value of. If they are not adding up, you know where to look. Another way is to give it to the compiler. The compiler is written by people who know way more than you do, and whatever they put in their compiler is probably good advice to take, but do not rely entirely upon it, its not perfect and doesn't have a case for everything. The final and most powerful step is the debugger. The debugger is a tool that lets you enter your program, dissect it line by line and inspecting memory. You can step through the entire logic flow of your program and find out exactly what function or line is causing errors.