Advanced Programming in the UNIX Environment

Week 05, Segment 8: Unix Development Tools:

Debugging Your Code

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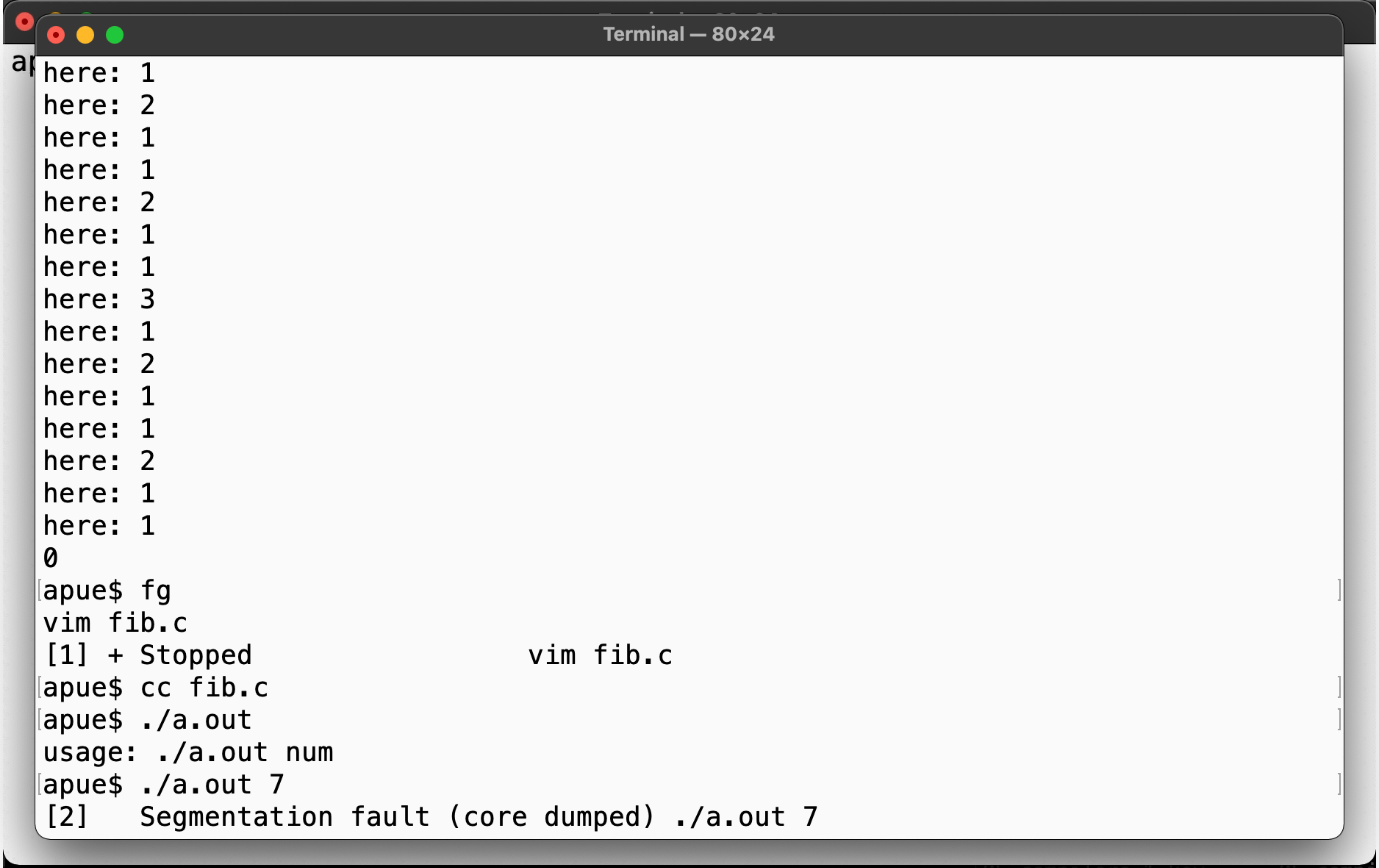
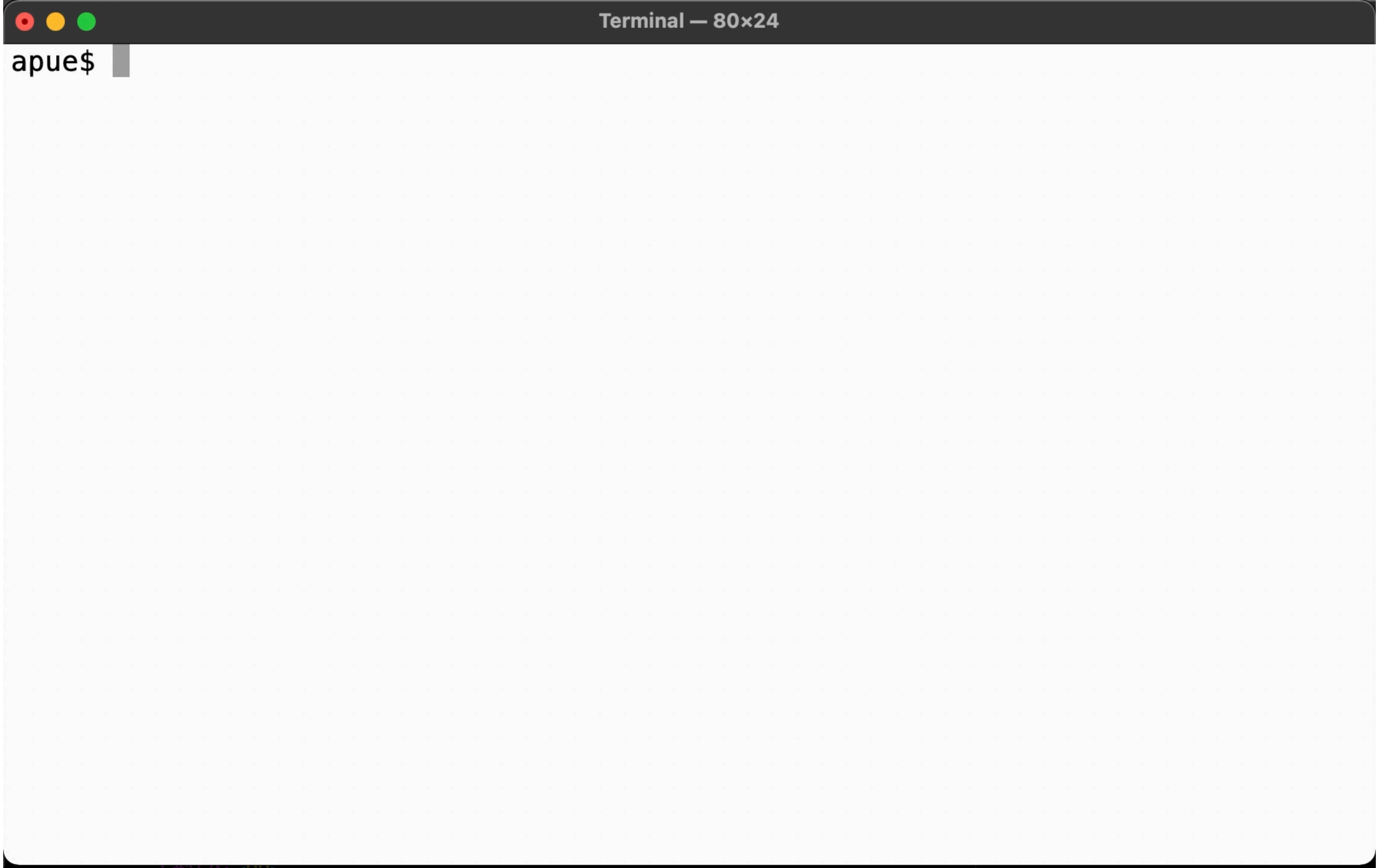


Terminal — 80×24

```
here: 1
here: 2
here: 1
here: 1
here: 2
here: 1
here: 1
here: 3
here: 1
here: 2
here: 1
here: 1
here: 2
here: 1
here: 1
0
apue$ fg
vim fib.c
[1] + Stopped                  vim fib.c
apue$ cc fib.c
apue$ ./a.out
usage: ./a.out num
apue$ ./a.out 7
[2]   Segmentation fault (core dumped) ./a.out 7
```



```
apue$ 
```

Using a debugger

The process of "debugging" is not so much "finding bugs". It's observing what the program *does* versus what you thought it *should* be doing.

Popular methods:

- thinking really hard and reading the docs ← **What "real programmers" claim they do.**
- guessing
- printf debugging

} ← **What "real programmers" actually do.**

- using a debugger ← **What "real programmers" *should* do.**