

Practical Programming in Python

Inspired by 'Practical Programming' by Paul Gries, Jennifer Campbell, Jason Montojo

Lecture 1: Summary & Exercises

What is Programming?

Why computers & programming?, What is programming?, Who are the programmers?

“Specialization is for insects.”

– Robert A. Heinlein

Lecture 1: Summary

In this lecture you learned the following:

- Computers are everywhere, even where you might not expect them.
- Modern science & engineering would be impossible without computers & programming.
- Computers are dumb from a human perspective; programmers can make very little assumptions.
- Programming is disciplined problem solving.
- Programmers are simply people writing programs.
- The history of programming & programmers holds some surprises.

Lecture 1: Exercises

When writing code, only use Python concepts that have been introduced in the lectures already.

Exercise 1: What have computers ever done for you?

Describe an activity from your own experience that would not have been possible without computers.

Exercise 2: What can we do without computers?

Try to make a list of ten activities that people (you, your friends) commonly do that do *not* involve computers in any way, even indirectly. This might be harder than you think.

Exercise 3: Make no assumptions.

Spend a few minutes to write detailed instructions for how to get from your dinner table (or where you usually eat) to the closest bathroom. Make as few assumptions as possible. Imagine what happens when you follow these instructions to the letter. Swap your instructions with another student and point out to each other what assumptions have been made.

Exercise 4: A Programmer's virtues.

List some characteristics that you think most successful programmers share. Then list some characteristics programmers are commonly assumed to have.