

Introduction to Scripting

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What is a script?

- A script is a file containing a series of commands.
- When we run the script, all of the commands are executed sequentially.
 - Used instead of typing out each command individually.

What is scripting?

- Scripting is the process of writing a script
 - Often called “programming”
- Most programming languages support scripting
 - Bash
 - Python

What is bash?

- bash is the programming language used by most shells
 - Main shell type for Linux and MacOS computers
 - Is also been part of Windows machines via PuTTY
 - "shell" refers to the interface you enter when you use Terminal, PuTTY, etc.
- Common use: running programs in a shell
 - Python, R, PAML, MAFFT, etc.

What is Python?

- Python is also a programming language
 - High-level language
- In bioinformatics and computational biology, high-level languages are used almost 100% of the time.
 - Python, Perl, R
- Low-level languages are used to program hardware (the actual computer) and are generally not useful for applications in biology.
 - C, C++, Assembly, etc.
- Python is built with objects, which are computer program variables you can use to represent real-world concepts
 - Example: there is an object type called a list where you can store multiple variables

Google is your friend!

- Stack Overflow
- Biostar

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