

Programming Workshop: Linux and Python Review

Beginner's Workshop #2
19 September 2016

Outline

1. Linux Query
2. Using the Command Line
3. Python Interpreter: Intro to Syntax
4. Sample Speed Exercises
5. Codecademy - A Review Tool
6. “Homework”

Linux Query

Who has working Linux?

Who has working Python?

Using the Command Line

What is a command line?

- “A command-line interface or command language interpreter (CLI) ... is a means of interacting with a computer program where the user (or client) issues commands to the program in the form of successive lines of text (command lines).”

Using the Command Line

In Linux, can use to:

- Navigate directories
- Manipulate files
- Invoke programs
- Give direct OS commands

Using the Command Line

Example commands:

Command	Pseudonym	Description
cd	Change directory	Move between directories
ls	List	List contents of directories
mkdir	Make directory	Create a directory
./[path]/[name]	Invoke program [name]	Execute binary called [name] located at [path]
vim	Invoke vim	Begin terminal-based text editor Vim
python3	Begin Python interpreter	Begin terminal-based, interactive Python instance

Quick Note on Text Editors

Who has used a terminal-based text editor?

Which one?

Python Interpreter: Intro to Syntax

- Make a variable
- Use a statement
- Make a loop
- Collect input

Sample Speed Exercises

1:

Make a function that counts to 15 and prints each odd number.

60 seconds

Sample Speed Exercises

2:

Import the math package and print a list of 10 randomly generated numbers between 0 and 1.

120 seconds

Sample Speed Exercises

3:

Make a class called coin. Give it a property “value” and a function called flip(). Have flip() return “Heads” 50% of the time and “Tails” 50% of the time.

(Hint: random numbers might help.)

360 seconds

Discussion: Good use of a class?

Codecademy - A Review Tool

1. Connect to the internet
2. Open www.codecademy.com
3. Make an account
4. Start the Python lesson

“Homework”

1. **Get Linux and Python running!**
2. Make a GitHub account
3. Go through the Codecademy Python lesson

```
if user.get_experience() == "beginner":  
    time_to_complete = 4  
elif user.get_experience() == "experienced":  
    time_to_complete = 1.5
```

Contact Details Reminder

Melanie Cornelius

mdooley1@hawk.iit.edu

melanie.e.cornelius@gmail.com

636.627.6230