BUILDING HPC CARPENTRY

Applying the Software and Data Carpentry model to training needs in large scale research computing

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LESSONS & STRUCTURE

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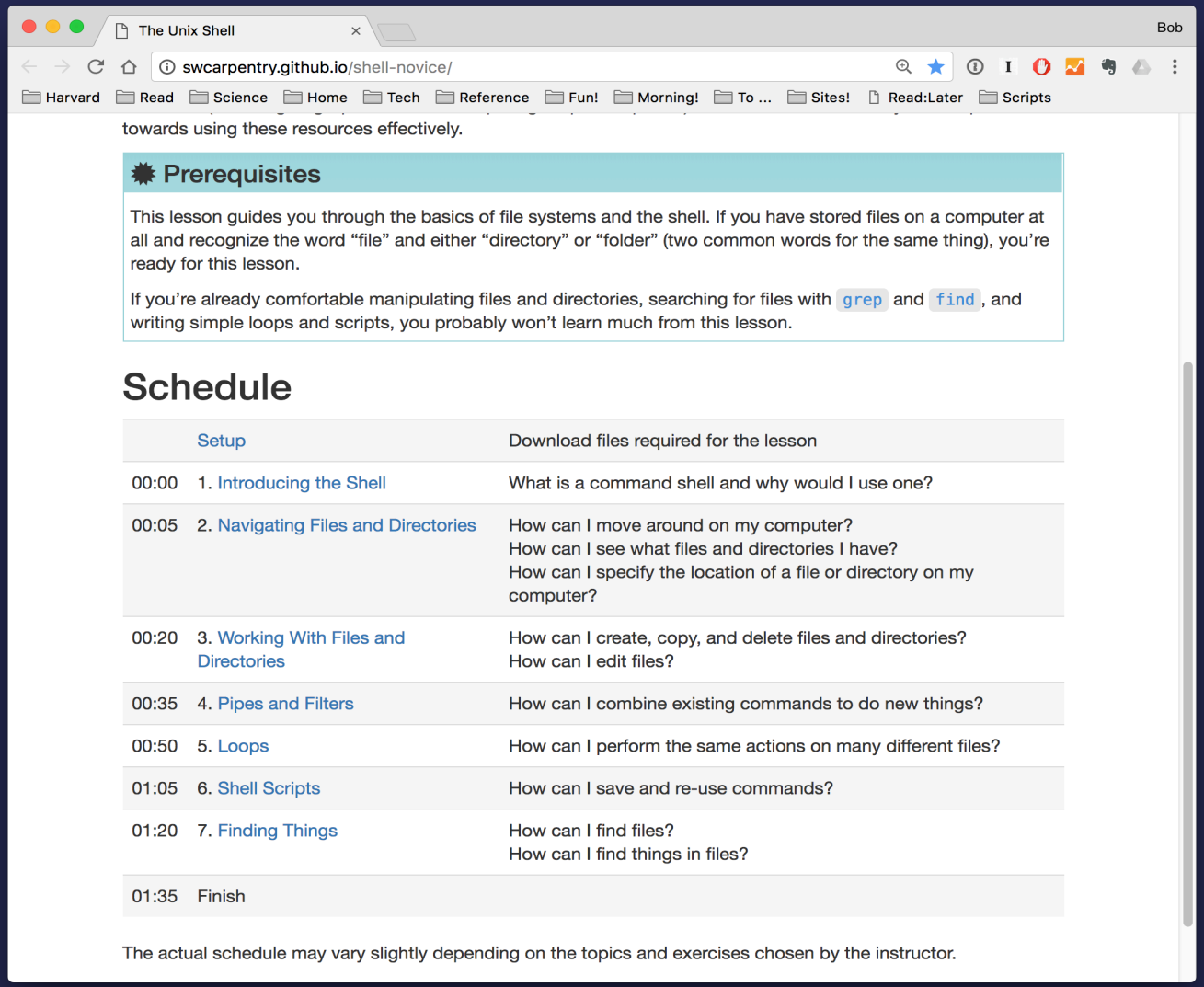
Workshop & Lessons

- Workshops range from ½ day – 2 days in length
- Lesson modules range from 20 – 60 minutes
  - Learning objectives are clearly defined and used to build the lesson
  - Every 10 – 15 min, a formative assessment is done
  - Cumulative assessment at the end of each module
- Modules may be trimmed or swapped in/out


The Unix Shell
Bob
swcarpentry.github.io/shell-novice/
Harvard
Read
Science
Home
Tech
Reference
Fun!
Morning!
To ...
Sites!
Read:Later
Scripts
towards using these resources effectively.
Prerequisites
This lesson guides you through the basics of file systems and the shell. If you have stored files on a computer at all and recognize the word “file” and either “directory” or “folder” (two common words for the same thing), you’re ready for this lesson.
If you’re already comfortable manipulating files and directories, searching for files with grep and find, and writing simple loops and scripts, you probably won’t learn much from this lesson.
Schedule
Setup
Download files required for the lesson
00:00
1. Introducing the Shell
What is a command shell and why would I use one?
00:05
2. Navigating Files and Directories
How can I move around on my computer?
How can I see what files and directories I have?
How can I specify the location of a file or directory on my computer?
00:20
3. Working With Files and Directories
How can I create, copy, and delete files and directories?
How can I edit files?
00:35
4. Pipes and Filters
How can I combine existing commands to do new things?
00:50
5. Loops
How can I perform the same actions on many different files?
01:05
6. Shell Scripts
How can I save and re-use commands?
01:20
7. Finding Things
How can I find files?
How can I find things in files?
01:35
Finish
The actual schedule may vary slightly depending on the topics and exercises chosen by the instructor.

Activity

- On your own, brainstorm the 5 – 10 skills you would like the provided user profile to have by the end of the workshop.
- Translate these skills into specific learning objectives.
- Group these learning objectives into specific lesson topics

In your group

An example workshop outline with lesson modules is provided. Assuming a 1 day workshop:

- Verify lesson modules
  - What lessons are missing?
  - What should be dropped or combined?
  - If a longer workshop were given, what could be in Day 2?
- List lesson objectives
  - Pick a specific lesson module. Please list 2 – 3 learning objectives that embody the skills you desire