SI 506 lecture 02

Terminal/VS Code in-class exercise

Directory structure

From your home directory `/Users/< your account name >` (macOS) or `c/Users/< your account name >` (Windows) you will create the following directory structure to hold SI 506 content.

```
Documents/
    umich/
        courses/
            SI504/
            SI506/
                assignments/
                lectures/
                    lecture_02/
                        scratch.py
```

1.0 Open terminal

Open `Terminal.app` (macOS) or `Git Bash` (Windows). The terminal session should start in your home directory (confirm with `pwd`).

💡 `Terminal.app` (macOS) can be found in `Applications/Utilities`.

2.0 Terminal: command line exercise

2.1 Challenge 01

1. Print the working (i.e., current) directory path.
2. List the directory contents (long format) including all hidden files.
3. Clear the screen.
4. Navigate (i.e., change) to the `~/Documents` directory.
5. List the directory contents (long format) including all hidden files.
6. Create a directory named `umich`.
7. Navigate to the `umich` directory.
8. Create a subdirectory named `courses`.
9. Create a subdirectory named `courses/SI506`.
10. Create a sibling subdirectory named `courses/SI504`.

2.2 Challenge 02

1. Navigate to the `courses/SI504` directory.
2. Oops. Navigate to the "adjacent" `SI506` directory.
3. Create a subdirectory named `lectures`.
4. Create a sibling subdirectory named `assignments`.
5. Create a sibling subdirectory named `notes`.
6. Oops. Remove directory named `notes` (don't need it).
7. List the directory contents of the `SI506` directory (long format) including all hidden files.
8. Navigate to the `lectures` directory.
9. Create a subdirectory named `lecture_02`.

2.3 Challenge 03

1. Navigate to the `~/Downloads` directory or other directory location where you downloaded today's lecture files.
2. Copy `lecture_02.md` from `Downloads` (or other location) to the `lecture_02` directory created previously.
3. Copy `lecture_02_exercise.md` from `Downloads` (or other location) to the `lecture_02` directory created previously.
4. Copy `scratch.py` from `Downloads` (or other location) to the `lecture_02` directory created previously.
5. Navigate to the `lecture_02` directory employing *a single command* to traverse the directory path.
6. List the directory contents (long format) including all hidden files.
7. Check the Python version that your terminal session recognizes.
8. Check the Python install location.
9. Print a list of environment variables that govern your terminal session.
10. Clear the screen.
11. Run `scratch.py` from the terminal.

2.4 Challenge 04

Open VS Code.

1. Navigate `SI506` folder (*File -> Open...*).

2. Create a Workspace (*File -> Save Workspace As...*). Save `SI506.code-workspace` file in the `SI506` directory.
3. Create new folder `lab_exerise_01` in the `si506/assignments` folder.
4. Create new folder `problem_set_01` in the `si506/assignments` folder.
5. Open `scratch.py` in editor pane.
6. Click the triangular run button (upper right) and start a terminal session. `scratch.py` will print output to the terminal pane.

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