Bonus challenge: SI 506 "workspace" directory structure (max = 10 pts)

Goals

1. Create a common directory structure for SI 506 content using the command line (i.e., the terminal).
2. Practice navigating your file system using the command line.
3. Practice creating and removing directories using the command line.
4. Designate a VS Code workspace for SI 506 content.
5. Take a screenshot of your "workspace" directory structure and upload it to Gradescope.

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/
                    ps_01/
                    ...
                lectures/
                    lec_01/
                        ...
                    ...
                si506.code-workspace
```

1.0 Terminal: create the directory structure

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`. Windows users can employ the search feature to locate and open `Git Bash` (assuming, of course, that you have installed Git for Windows. If not consult the relevant install guide at https://si506.org/guides/).

1.1 Create path to `SI506` directory

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`.

1.2 Add `SI506` subdirectories

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. Create a subdirectory in `lectures` named `week_01` (do not change directories to perform this task).

8. Create a subdirectory in `lectures` named `week_02` (do not change directories to perform this task).

9. Navigate to the `assignments` directory.

10. Create a subdirectory named `ps_01`.

11. Create a subdirectory named `ps_02`.

12. Change directories up two levels to the `SI506/` directory. **Do not** close the terminal.

2.0 VS Code: create an SI 506 workspace

A VS Code workspace is a collection of one or more directories and their file contents that can be opened at the same time in a VS Code window. Various configuration settings can be assigned to a workspace. Think of a workspace as akin to a project; consider the SI 506 files that you will accrue across the semester as members of a single project. For more information on VS Code workspaces see https://code.visualstudio.com/docs/editor/workspaces.

1. Open VS Code and navigate to the `SI506` folder (*File -> Open*...).

2. Create a VS Code workspace (*File -> Save Workspace As*...). Save the `SI506.code-workspace` file in the `SI506` directory. Save the changes (*File -> Save* or use your keyboard: macOS: `Command + S`; Windows: `Ctrl + S`).

❗ Make sure that you save the file in the "root" SI506 directory.
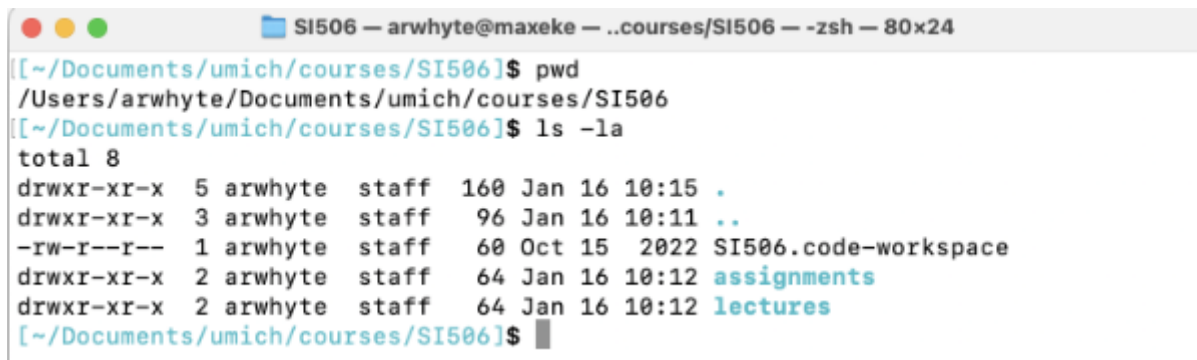
3.0 Terminal: upload screenshot

1. Return to your terminal and navigate to your SI 506 "workspace" directory (if not already there).

2. Once you have reached the si506 directory, issue the following commands:

   1. pwd (print working directory)
   2. ls -la (list all files and directories, including hidden files and directories)

3. Take a screenshot of your SI 506 "workspace" directory.

   ❗ the screenshot is expected to include the subdirectories assignments and lectures as well as the VS Code file si506.code-workspace.
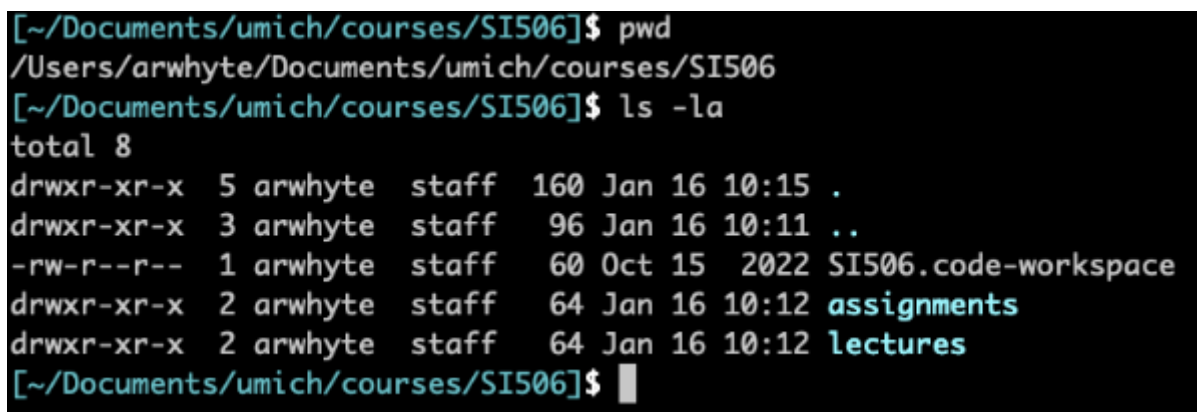
4. Upload the screenshot to Gradescope.

5. The teaching team will review your screenshot and award points.

4.0 Terminal: example screenshots

4.1 macOS

```
●  ●  ●            📁 SI506 — arwhyte@maxeke — ..courses/SI506 — -zsh — 80×24
[[~/Documents/umich/courses/SI506]$ pwd                                      ]
/Users/arwhyte/Documents/umich/courses/SI506
[[~/Documents/umich/courses/SI506]$ ls -la                                   ]
total 8
drwxr-xr-x  5 arwhyte   staff   160 Jan 16 10:15 .
drwxr-xr-x  3 arwhyte   staff    96 Jan 16 10:11 ..
-rw-r--r--  1 arwhyte   staff    60 Oct 15  2022 SI506.code-workspace
drwxr-xr-x  2 arwhyte   staff    64 Jan 16 10:12 assignments
drwxr-xr-x  2 arwhyte   staff    64 Jan 16 10:12 lectures
[~/Documents/umich/courses/SI506]$ ▏
```

```
[~/Documents/umich/courses/SI506]$ pwd
/Users/arwhyte/Documents/umich/courses/SI506
[~/Documents/umich/courses/SI506]$ ls -la
total 8
drwxr-xr-x  5 arwhyte   staff   160 Jan 16 10:15 .
drwxr-xr-x  3 arwhyte   staff    96 Jan 16 10:11 ..
-rw-r--r--  1 arwhyte   staff    60 Oct 15  2022 SI506.code-workspace
drwxr-xr-x  2 arwhyte   staff    64 Jan 16 10:12 assignments
drwxr-xr-x  2 arwhyte   staff    64 Jan 16 10:12 lectures
[~/Documents/umich/courses/SI506]$ ▏
```

4.2 Windows

```
CLANGARM64:/c/Users/arwhyte/Documents/umich/courses/SI506

arwhyte@ANTHONYWHYT4485 CLANGARM64 ~/Documents/umich/courses/SI506
$ pwd
/c/Users/arwhyte/Documents/umich/courses/SI506

arwhyte@ANTHONYWHYT4485 CLANGARM64 ~/Documents/umich/courses/SI506
$ ls -la
total 5
drwxr-xr-x 1 arwhyte 197608  0 Jan 11 18:12 ./
drwxr-xr-x 1 arwhyte 197608  0 Aug 30 22:18 ../
drwxr-xr-x 1 arwhyte 197608  0 Oct 12 18:21 assignments/
drwxr-xr-x 1 arwhyte 197608  0 Oct 10 15:32 lectures/
-rw-r--r-- 1 arwhyte 197608 60 Aug 30 22:20 si506.code-workspace

arwhyte@ANTHONYWHYT4485 CLANGARM64 ~/Documents/umich/courses/SI506
$
```