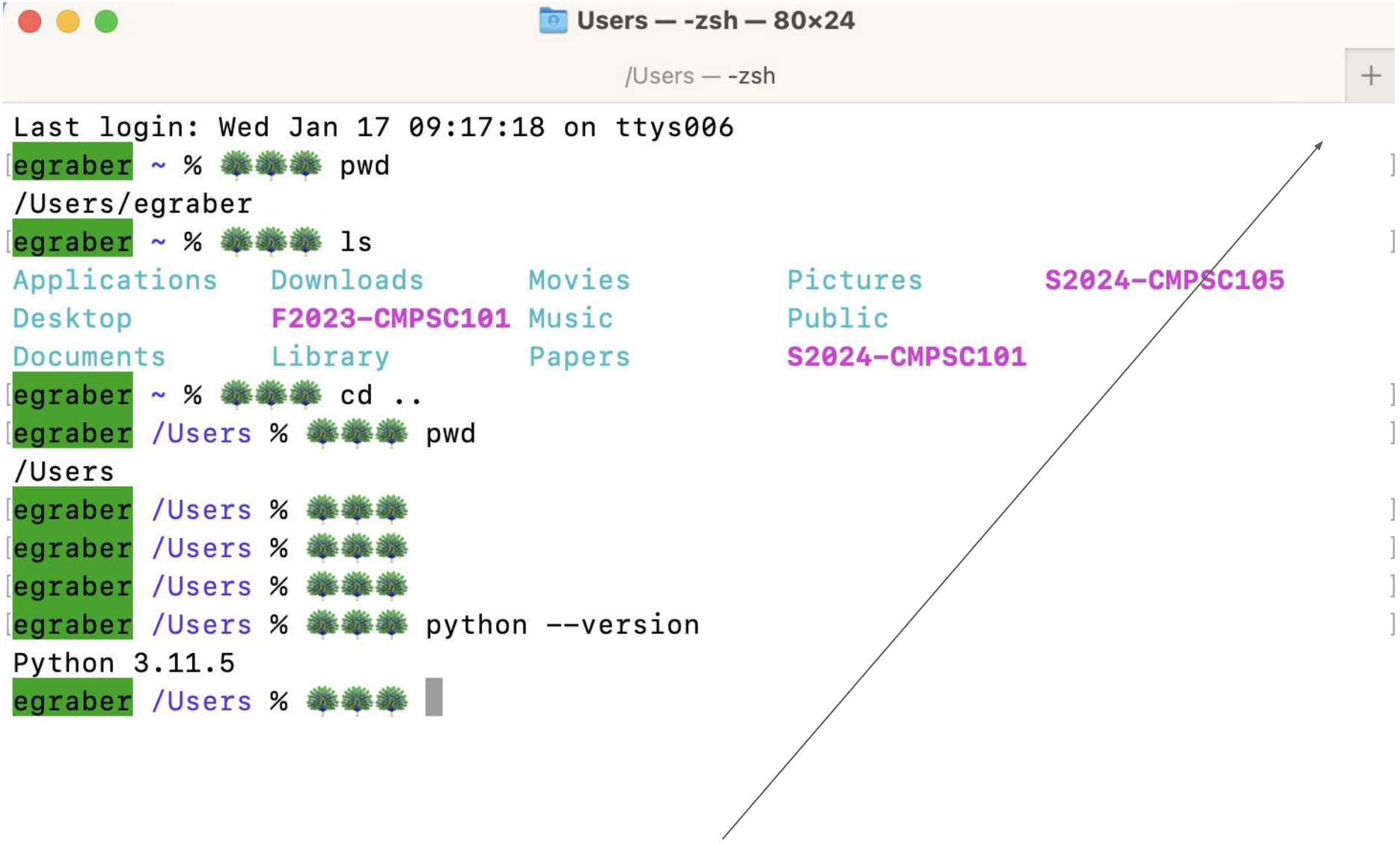
S.O.S.

CMPSC 101, Lab 1
Jan. 18, 2024



n.b. after most updates, it is necessary to open up a new terminal!

Strongly recommend opening a new tab so that old information can be referenced if needed

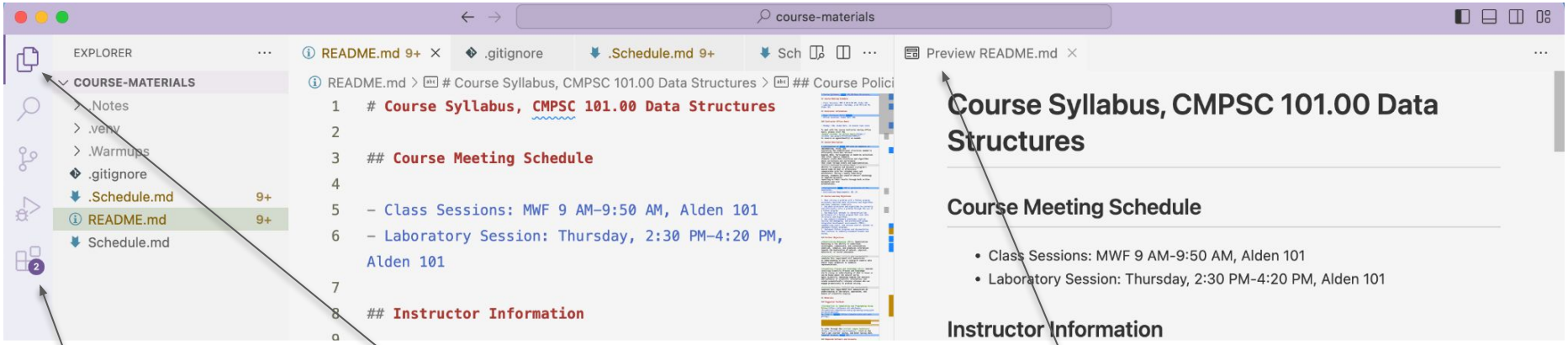
➔ Install latest python

- https://docs.python-guide.org/starting/installation/
- Windows, https://www.python.org/downloads/windows/
  - If you need to uninstall the windows microsoft store version….check this: https://learn.microsoft.com/en-us/hololens/holographic-store-apps
- macOS
  - get package manager homebrew - https://brew.sh/
  - Add brew to $PATH by updating your shell config file (.zshrc)
    - usually brew is at /opt/homebrew/bin/brew
  - e.g. check out this example: https://mac.install.guide/homebrew/3.html
  - `brew install python`
- Add python to $PATH, or remap `python3` to `python`

➔ Essential

- Please make sure that when you type `python --version` in the terminal, you have python3

- Integrated Development Environment - VS Code
  - Install vscode - https://code.visualstudio.com/
  - Make VS Code accessible in the terminal
    - macOS
      - open command palette [⌘ shift P] type path
      - Add vscode to $PATH
    - Windows, ref this: https://code.visualstudio.com/docs/editor/command-line#_launching-from-command-line
  - Add extensions - https://code.visualstudio.com/docs/introvideos/extend
    - ms-python extension (n.b. This extension is not the same as python itself!) https://marketplace.visualstudio.com/items?itemName=ms-python.python
    - any linting extension, eg pylint, flake8, ruff
    - markdown linter is essential
    - consider others to taste:
      - spell checking
      - indentation rainbow
    - n.b. extensions can be turned off and on



file explorer

extension manager

Markdown preview

- ➔ SSH keys
  - in the terminal, type: `ssh-keygen -t ed25519`
    - Hit enter to use default location in ~/.ssh
    - Make a passphrase that you will remember!
  - ➔ Add SSH key to GitHub - https://proactiveprogrammers.com/proactive-skills/technical-skills/using-git/
  - ➔ Verify your key is working by cloning something, you don't have to change any code
    - e.g. gradebook: https://classroom.github.com/a/WiBuT_qZ
    - eg. course-materials repo

```
>> cd Documents
>> mkdir cmpsc101-spring2024
>> cd cmpsc101-spring2024
>> git clone
git@github.com:allegheny-college-cmpsc-101-spring-2024/course-materials.git
>> git clone
```

- Get poetry - https://python-poetry.org/docs/#installing-with-pipx
  - macOS
    - first, you need to get pipx
      - brew install pipx
    - then get poetry
      - `pipx install poetry`

  - Windows (ref: https://python.land/virtual-environments/pipx)
    - `pip install --user pipx`
    -
    - You may get a warning about pipx not being in your PATH. If that happens, first cd to the installation location of pipx and then run this:
    -
    - `pipx ensurepath`
    - `pipx install poetry`

  - Add poetry to $PATH
    - If you used pipx, then `pipx ensurepath`

- GatorGrade - https://proactiveprogrammers.com/proactive-skills/technical-skills/using-gatorgrader/
  - pipx install gatorgrade

Pro Tips

Terminal and other
- Tab completion
- arrow up/down
- ctrl c
- >> pwd
- >> cd ..
- >> ls
- >> mkdir

VS Code and most text editors including google docs	windows version
cmd arrow left/right	ctrl arrow left/right
cmd delete	ctrl delete
opt delete	opt delete
cmd z	ctrl z
cmd shift z	ctrl y
cmd f	ctrl f
cmd /	ctrl /

Try this, one line at a time

```
poetry --version
python --version
gatorgrade --help
code --version
cd ~/Documents/cmpsc101-spring2024/course-materials
code .
```

Markdown tutorial, formatting matters
Learn it now!

https://www.markdownguide.org/basic-syntax/

- Overview
- Headings
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- Emphasis
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