

Good Afternoon CEG 2350!



Aiden Cox - CEG 2350 Lab Lead

Austin Kellough - CEG 2350 Lab Assistant

Quote of the week:

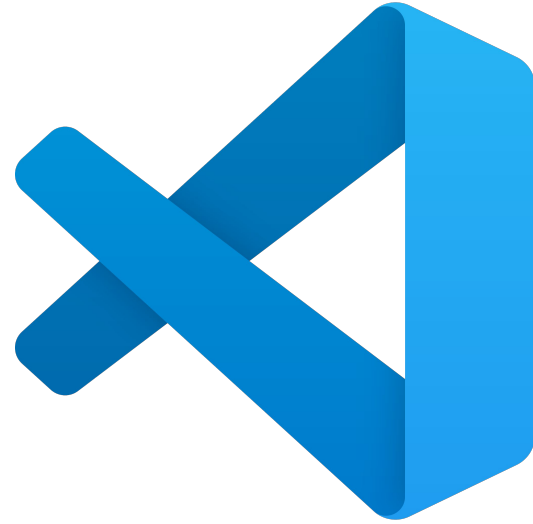
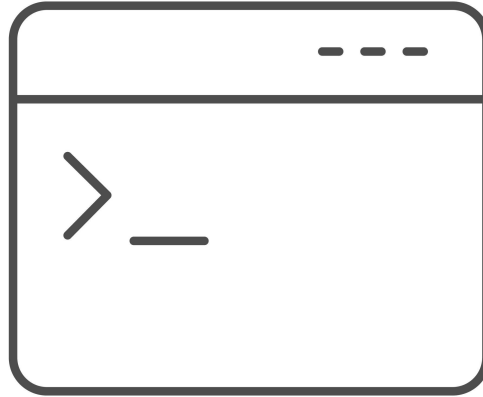
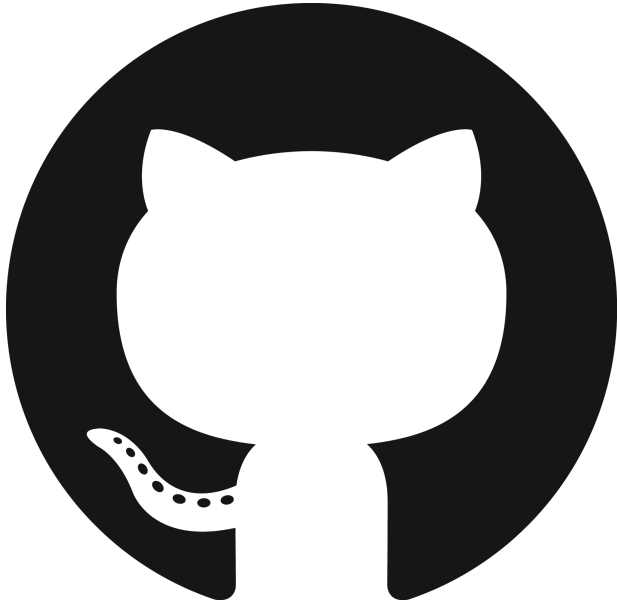
“You can catch flies with honey, but you can catch more honeys by being fly”

1:25pm - 2:20pm

September 2nd - September 5th

Check in! How was Lab01?

Questions over anything up until now?



Beginning Lab02

Lab Instructions: <https://pattonsgirl.github.io/CEG2350/Labs/Lab02/Instructions.html>

Lab Template:

<https://raw.githubusercontent.com/pattonsgirl/CEG2350/refs/heads/main/Labs/Lab02/LabTemplate.md>

AWS Academy email? Instances set up yet?



Setting up AWS Instance - Part 1

Text Guide to set up AWS: (Located in Professor Duncan's GitHub)

<https://github.com/pattonsgirl/CEG2350/blob/main/AWSAcademySetup.md>

Course Invitation

AA AWS Academy <notifications@instructure.com>
To: Cox, Aiden Mon 2/17/2025 2:03 PM

⚠ This sender notifications@instructure.com is from outside your organization. [Block sender](#) [Show blocked content](#)

You don't often get email from notifications@instructure.com. [Learn why this is important](#)

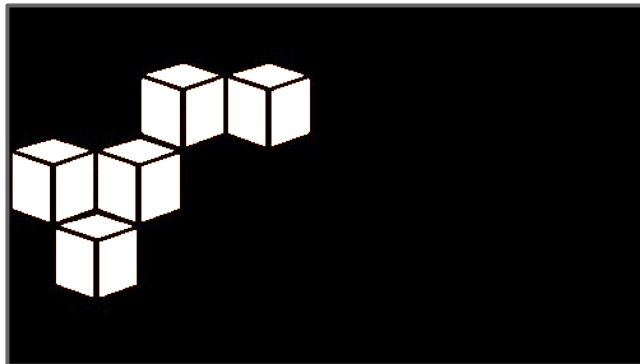
You've been invited to participate in the course, AWS Academy Learner Lab [106943].
Course role: Student

Name: cox.378@wright.edu
Email: cox.378@wright.edu

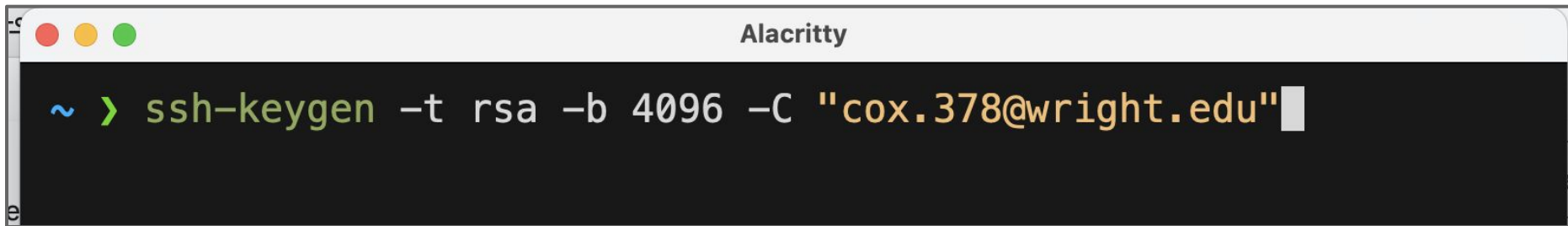
[Get Started](#)

[Click here to view the course page.](#) | [Update your notification settings](#)

Let's walkthrough the notes on
GitHub!

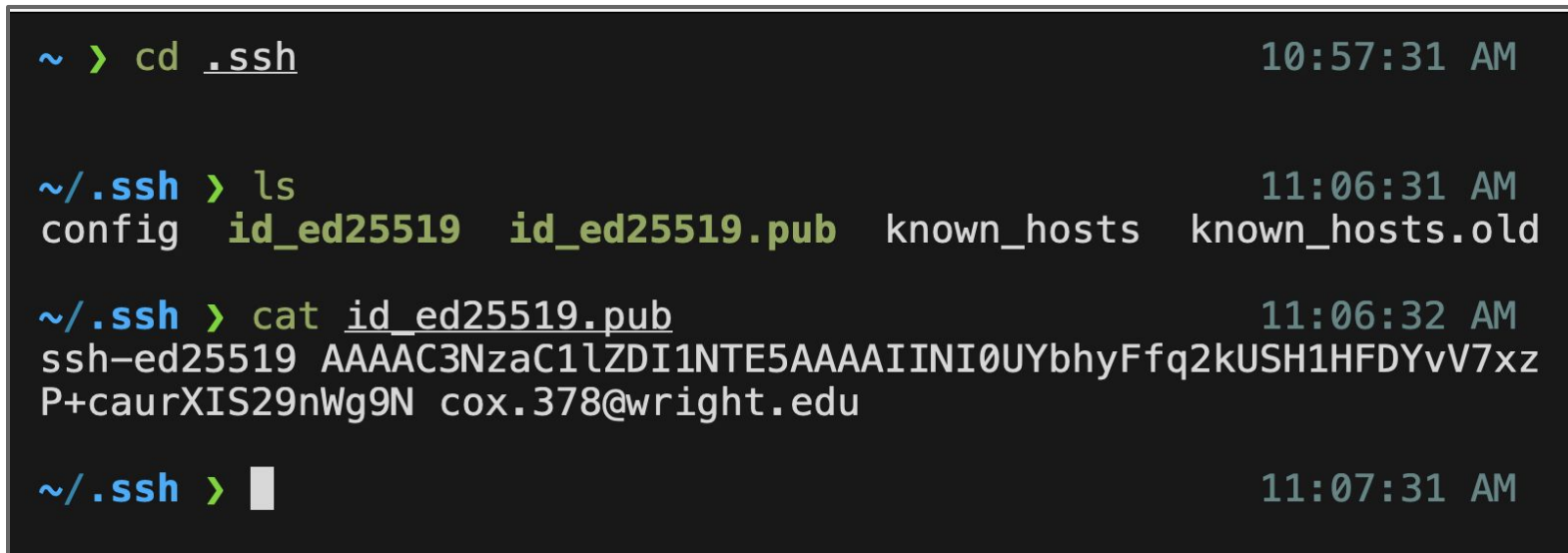


GitHub Repo Cloned?



A screenshot of an Alacritty terminal window. The title bar shows the window name 'Alacritty' and standard macOS window controls (red, yellow, green buttons). The terminal content shows a prompt '~ >' followed by the command 'ssh-keygen -t rsa -b 4096 -C "cox.378@wright.edu"' with a cursor at the end of the line.

```
~ > ssh-keygen -t rsa -b 4096 -C "cox.378@wright.edu"
```



A screenshot of a terminal session showing the steps to create and verify an SSH key. The session starts with a prompt '~ >' and the command 'cd .ssh', followed by a timestamp '10:57:31 AM'. Then, the prompt changes to '~/.ssh >' and the command 'ls' is entered, followed by a timestamp '11:06:31 AM'. The output of 'ls' is 'config id_ed25519 id_ed25519.pub known_hosts known_hosts.old'. Next, the prompt is '~/.ssh >' and the command 'cat id_ed25519.pub' is entered, followed by a timestamp '11:06:32 AM'. The output of 'cat' is 'ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAAIINI0UYbhyFfq2kUSH1HFDYvV7xz P+caurXIS29nWg9N cox.378@wright.edu'. Finally, the prompt is '~/.ssh >' with a cursor, followed by a timestamp '11:07:31 AM'.

```
~ > cd .ssh 10:57:31 AM

~/.ssh > ls 11:06:31 AM
config id_ed25519 id_ed25519.pub known_hosts known_hosts.old

~/.ssh > cat id_ed25519.pub 11:06:32 AM
ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAAIINI0UYbhyFfq2kUSH1HFDYvV7xz
P+caurXIS29nWg9N cox.378@wright.edu

~/.ssh > 11:07:31 AM
```

GitHub Repo Cloned?



Aiden Cox (aidenc17)

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SSH keys

This is a list of SSH keys associated with your account. Remove any keys that you do not recognize.

Authentication keys



SSH

CEG2350 f24 Local

SHA256: S9QDf7jxq1ERKerzyUk8W62vHd+wYTAw4/F74Mfj7CI

Added on Aug 27, 2024

Last used within the last 9 months — Read/write

Delete



SSH

AWS CEG2350 f24

SHA256: 7mR20RWew1xI/Fd05EUots1CTAjUF50j1bSSGd7Yh0E

Added on Aug 27, 2024

Last used within the last 11 months — Read/write

Delete



SSH

Desktop WSL

SHA256: ZDuw6zR05vxQA6pDs1f5tNg0YP+lh4bIXJr0sqd2L00

Added on Sep 7, 2024

Last used within the last 12 months — Read/write

Delete



New SSH key

GitHub Repo Cloned?

Add new SSH Key

Title

CEG2350-AWS

Key type

Authentication Key ▾

Key

```
ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAAIINI0UYbhyFfq2kUSH1HFDYvV7xzP+caurXIS29nWg9N cox.378@wright.edu
```

Add SSH key

GitHub Repo Cloned?

The screenshot shows a GitHub repository interface. At the top, navigation links include Issues, Pull requests, Actions, Projects, Wiki, Security, Insights, and Settings. The repository name is **ceg2350f25-aidenc17**, marked as Private, and it is a fork of [WSU-kduncan/ceg2350-f25-ceg2350f25-CEG2350-LabTemplate](#). The main branch is **main**, with 1 branch and 0 tags. A search bar labeled 'Go to file' and a green 'Code' button are visible. The 'Code' dropdown menu is open, showing options for Local and Codespaces. Under 'Local', there is a 'Clone' button with a question mark icon. Below 'Clone', the 'SSH' option is selected, showing the URL `git@github.com:WSU-kduncan/ceg2350f25-aider`. Other options in the dropdown include 'Open with GitHub Desktop' and 'Download ZIP'. The repository content area shows a file tree with **sample** and **README.md**, both marked as 'Initial commit'.

Issues Pull requests Actions Projects Wiki Security Insights Settings

ceg2350f25-aidenc17 Private Edit Pins Watch 0

forked from [WSU-kduncan/ceg2350-f25-ceg2350f25-CEG2350-LabTemplate](#)

main 1 Branch 0 Tags Go to file Add file <> Code

This branch is up to date with [WSU-kduncan/ceg2350-f25-ceg2350f25-CEG2350-LabTemplate](#)

Contribute Sync fork

github-classroom[bot] Initial commit

sample Initial commit

README.md Initial commit

README

Local Codespaces

Clone ?

HTTPS SSH GitHub CLI

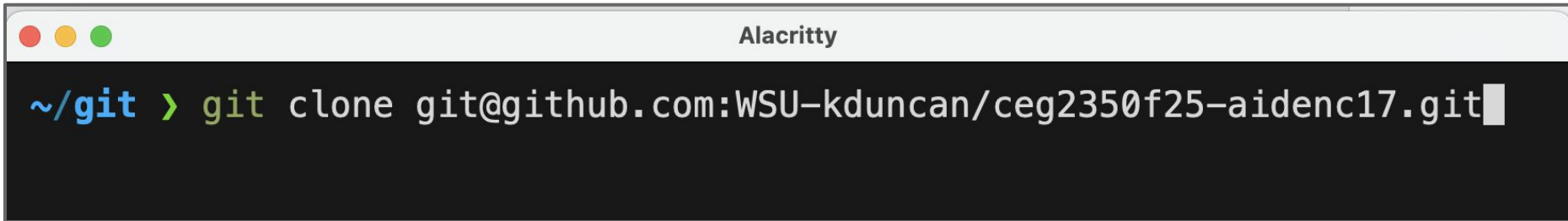
`git@github.com:WSU-kduncan/ceg2350f25-aider`

Use a password-protected SSH key.

Open with GitHub Desktop

Download ZIP

GitHub Repo Cloned?

A screenshot of an Alacritty terminal window. The title bar at the top is light gray and contains the text "Alacritty" in a dark font. Below the title bar, the terminal has a dark background. The prompt is "~ /git >". The command being entered is "git clone git@github.com:WSU-kduncan/ceg2350f25-aidenc17.git". The cursor is at the end of the command, indicated by a white block. The text is in a monospaced font, with "git" in green and the rest in white.

```
~/git > git clone git@github.com:WSU-kduncan/ceg2350f25-aidenc17.git
```

After that, the repo should have been cloned onto your AWS instance and we can now `cd` into it and make changes!

Do I have Permission? - Part 2

```
~ > llsc 11:43:57 AM
drwxr-xr-x@ - aidencox 22 Apr 22:44 AndroidStudioProjects
drwxr-xr-x@ - aidencox 7 May 21:19 Applications
drwx-----@ - aidencox 21 Jun 12:33 Desktop
drwx-----@ - aidencox 12 May 20:26 Documents
drwx----- - aidencox 19 Jun 20:29 Downloads
drwxr-xr-x - aidencox 12 May 20:34 git
drwxr-xr-x@ - aidencox 13 Mar 14:01 gradingScripts
drwxr-xr-x@ - aidencox 29 Apr 12:59 IdeaProjects
drwxr-xr-x - aidencox 4 Apr 15:03 java
drwxr-xr-x@ - aidencox 17 Feb 15:39 Keys
drwx-----@ - aidencox 23 Jun 11:15 Library
drwx----- - aidencox 11 Feb 12:48 Movies
drwx----- - aidencox 16 Feb 20:30 Music
.rw-r--r--@ 87 aidencox 24 Mar 12:07 package-lock.json
drwx----- - aidencox 9 Apr 15:12 Pictures
drwxr-xr-x - aidencox 10 Feb 20:04 Public
drwxr-xr-x@ - aidencox 8 Apr 22:10 pythonEnv312
```

```
~ > █ 11:43:58 AM
```

Reminder that the rest of the lab should be completed in your newly created AWS Instance.

For this part, you will explain each of the permissions granted when running the command. **Do not forget to include all of the flags**

Graphic on next page

Permission Graphic

User			Group			Others		
read	write	execute	read	write	execute	read	write	execute

Rest of the lab - Trial Run

Questions on Permissions?

Rest of the lab go ahead and work through, asking questions if need be.

Part 3 - Regular bob

For these exercises, replace `bob` with a username based on **your** first initial followed by last name. For example, "John Smith" would be `jsmith`

Perform the following exercise on your AWS instance.

- Useful commands for this part: `adduser, sudo, su, chown, pwd, cd, whoami, exit`

1. Create a new user named `bob` (replace with your username, see above)
2. What is the path to `bob`'s `home` directory?
3. Can `ubuntu` add files to `bob`'s home directory? Why or why not?
 - For credit, answer must include what was to justify answer.
4. Switch to the user `bob`
5. Get to `bob`'s `home` directory
6. Can `bob` add files to `bob`'s home directory? Why or why not?
 - For credit, answer must include what was to justify answer.
7. Switch back to the `ubuntu` user
 - Note that the `ubuntu` user does not have an account password. You'll have to find a more administrative way to switch accounts...
8. Return to the `ubuntu` user's `home` directory

Rest of the lab - Trial Run

Questions on Permissions?

Rest of the lab go ahead and work through, asking questions if need be.

Part 4 - Get a `squad`

Perform the following exercise on your AWS instance.

Reminder to replace references to BOB with your username of first initial, last name (ex. jsmith)

- **Useful commands for this part:** `addgroup`, `usermod`, `chown`, `chgrp`, `su`, `sudo`, `mkdir`

Create a folder named `share` in the `ubuntu` user's home directory and create some files and sub folders in the folder to play with.

1. Create a new group named `squad`
2. Add `ubuntu` and `BOB` to the `squad` group
 - **replace BOB with your username, see instructions above**
3. Allow `squad` to view the `ubuntu` user's home directory contents.
4. Change permission of the `share` directory in the `ubuntu` user's home directory so that `squad` is the group for the whole folder and members of `squad` can make changes in the folder.
 - Include all files and subdirectories in `share`
5. Switch user to `BOB`. Test that `BOB` can view the contents of the `ubuntu` user's home directory.
 - If not, make a note in your answer in Step 3 about additional change(s).
6. As `BOB` create a file in `share`. Describe the full set of permissions / settings that enabled `BOB` to do this action.

Rest of the lab - Trial Run

Questions on Permissions?

Rest of the lab go ahead and work through, asking questions if need be.

Part 5 - sudo **make me a sandwich**

Perform the following exercise on your AWS instance.

- **Useful commands for this part: sudo**

1. As the `ubuntu` user, in the `ubuntu` user's home directory, make a file with `sudo` named `madewithsudo.txt`
2. As the `root` user, in the `ubuntu` user's home directory, make a file with named `madewithroot.txt`
3. Describe / compare the ownership and permissions associated with `madewithsudo.txt` and `madewithroot.txt`
4. Determine which account (`root`, `ubuntu`, and `BOB`) can view or edit or changes permissions to:
 - Contents inside of `share`
 - `madewithsudo.txt`
5. Modify the permissions and ownership to make `ubuntu` the owner and `squad` the group associated with `madewithsudo.txt`. Give both the ability to view and edit the file.
6. Determine why `ubuntu` can use `sudo`, but `BOB` cannot. Find, implement, and test a way to fix this.

Have a Good Weekend



Don't hesitate to reach out and ask questions!

Quote of the week:

“You can catch flies with honey, but you can catch more honeys by being fly”

1:25pm - 2:20pm

September 2nd - September 5th