

# classroom\_poetry\_docker

August 2, 2023

## 1 Setting up your workspace

You can choose to either do your coding in what is called a “github codespace”, or you can “pull” the code from the assignment repository to your local computer. On your local computer, you are still encouraged to use vscode.

### 1.1 Github codespace

Github provides all github users with at least 60 hours of free ‘codespace’ time. Students get at least 90 hours (my current account gets 180 hours free, so it may be that you get 180 hours. But the docs say 90, last I looked). ‘Codespace’ is a cloud computing service. The advantage to using codespace is that we have pre-configured the environment so that you do not need to install anything for the assignments – all the dependencies and software that you need, including vscode itself and the vscode plugins, are provided. For each assignment, after accepting the assignment and generating your assignment repository, you can follow these instructions to launch the codespace:

1. After accepting the assignment navigate to your profile’s assignment repo.
2. In the right hand side of the screen, you’ll see a green button that says “Code”. Click this, which opens a drop down with the tabs **Local** and **Codespaces**. Click **Codespaces**
3. If you have not done this before, you will not have any existing Codespaces. Even if you do have other Codespaces, if this is the first time you are accessing this assignment, then you will need to create a new Codespace. Click the green button that says, “Create codespace on main”
4. This will launch a new tab and you will see a dialogue that says, “Setting up your codespace”. Feel free to click “view the log” if you want to watch the paint dry, or get up and do some jumping jacks while you wait.
5. After a few minutes, the tab will re-render with a vscode interface. On the left hand side of the screen, there is a file navigator. Navigate into the .vscode directory and open the file `<repo_name>.code-workspace`. In the bottom right of the screen, you’ll see a green button that says “Open Workspace”. Click that.
6. The page will re-render again. Wait a few minutes until on the far left hand size you see a beaker (like a lab beaker) icon. Once that loads, click it. It may still take a second for python to find all the tests – if it looks busy, just let it work. Eventually, you’ll see a collapsed list of tests – go ahead and expand the lists and then click the “double play” button to run all of the tests.

## 1.2 Local computer

### 1.2.1 With Poetry

To develop on your local computer, you will need to install the following:

- [vscode](#). If you choose to use another editor, we cannot help troubleshoot any IDE specific issues.
- [git](#) (unless you are working on a windows machine, git is probably already installed)
- [poetry](#)

**Important:** after installing poetry, enter the following:

```
poetry config virtualenvs.in-project true
```

This configures poetry so that poetry will install a given package’s virtual environment in a file called `.venv` in the package directory.

If you don’t already have a place to store files and directories for `cse587`, I suggest making one. I store my class related files in my home directory in a directory called “class”. If you do not have something like this, do the following:

```
# $HOME is a global variable and you can use it -- you can copy this directly  
mkdir -p $HOME/class/cse587
```

Note that if you are on a windows machine, you can either do this through the file explorer, or through powershell, but the path will look slightly different (starting with `c/` or however windows works)

Now, navigate to the place where you store `cse587` materials on your computer and enter the following

```
git clone https://...link/to/the/repo.git
```

This will download the assignment onto your computer.

`cd` into the new directory and do the following:

```
poetry install
```

Now, open `vscode`, open the `File` menu and click “Open Workspace from File...”. This will open a file explorer. Navigate to the class repository. You now need to show hidden files (usually, right clicking will bring up a menu with this option), navigate into the `.vscode` directory, and double-click `<repo_name.code-workspace>`.

This will launch a `vscode` session. Since you have already installed the virtual environment, everything should now be set up and ready for you to start coding.

### 1.2.2 With Docker

Another option is to use `docker` to create a development environment. To use this option, install `vscode` and `git` as instructed above. But, you will also need to install [docker](#). Then, navigate to the place on your computer where you store `cse587` course materials and pull the repository, as instructed above.

Next, open vscode. At the the bottom right of the screen, a dialogue box should open that asks, “do you want to re-open in a development container?” if you click yes, then the container will build and the session will restart in that container. If you miss the dialogue box, you can enter `cntrl-p` and then type `>Dev Containers: Open Workspa...`<at this point, the right option will be the only option> and click the link.

If you’re using the container, then you don’t need to worry about installing poetry or any of the dependencies – this will be done for you.