Some Git Basics

A few useful details
including how to use .gitignore

What to Include in a Repo?

Files you should include are:

1. source code

2. design and notes, such as an architecture notebook, UML diagrams

3. documentation

4. (optional) project plans and project documents

What <u>NOT</u> to save in a repo.

In a Git repository you should <u>not</u> save:

1. compiler output

2. anything you can recreate with a build tool. But OK to save "release" distributions or executable.

3. virtual environments, such as Python virtualenv.

   can be recreated using a `requirements.txt` file

4. IDE or editor project files, such as .vscode/ or .idea/

5. temporary files and log files

Examples what not to save

```
__pycache__
*.py[cod]    this means *.pyo or *.pyc or *.pyd
.coverage    output of code coverage app
*.log
# Intellij files
.idea/
*.iml
# Eclipse, Pydev, and VSCode files
.settings
.project/
.vscode/
# Virtual env files (common directory names)
venv/
env/
```

.gitignore

To avoid <u>accidentally</u> adding unwanted files a repository, add a file named `.gitignore` to the top directory of your repo. This is common practice.

`.gitignore` contains names or *patterns* for files and directories that git should ignore -- that is, <u>never</u> <u>add</u> to a repository (unless you <u>force</u> it to).

See next slide for example.

Github can create a `.gitignore` for you when you create a repository! This is a good way to see an example of what you might put in .gitignore.

.gitignore for a Python project

Write one filename, directory name, or pattern to match per line.
Lines beginning with # are comments. Blank lines are ignored.

```
__pycache__
*.py[cod]
.coverage
htmlcov/
*.log
# Intellij files
.idea/
*.iml
# Eclipse, Pydev, and VSCode files
.settings
.project/
.vscode/
# Virtual env files (common directory names)
venv/
env/
```

Extra ignores for a Django project

Write one filename, directory name, or pattern to match per line.
Lines beginning with # are comments. Blank lines are ignored.

```
local_settings.py
db.sqlite3
/site
# configuration data in external files
# (may be confidential) used by python-decouple
.env
settings.ini
config.sh
```