Some Git Basics

A few useful details

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 NOT to save in a repo.

In a Git repository you should not 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 accidentally adding unwanted files a repository, it is common practice to add a file named `.gitignore` to the top directory of your repo.

`.gitignore` contains names or patterns for files and directories that git should ignore -- that is, never add to a repository (unless you force 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
*.log
# Intellij files
.idea/
*.iml
# Eclipse, Pydev, and VSCode files
.settings
.project/
.vscode/
# Virtual env files (common directory names)
venv/
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