QTM 151:
Lecture 1 - Reviewing GitHub

September 3rd, 2025

Learning Objectives

1. Understand the difference between cloning and forking a repository

2. Learn how to removed cloned repos

3. Understand the **GitHub workflow**: change, commit, push, fetch, pull

4. Learn how to keep a forked repository updated

5. Understand what a **virtual environment** is and how to create one (maybe)
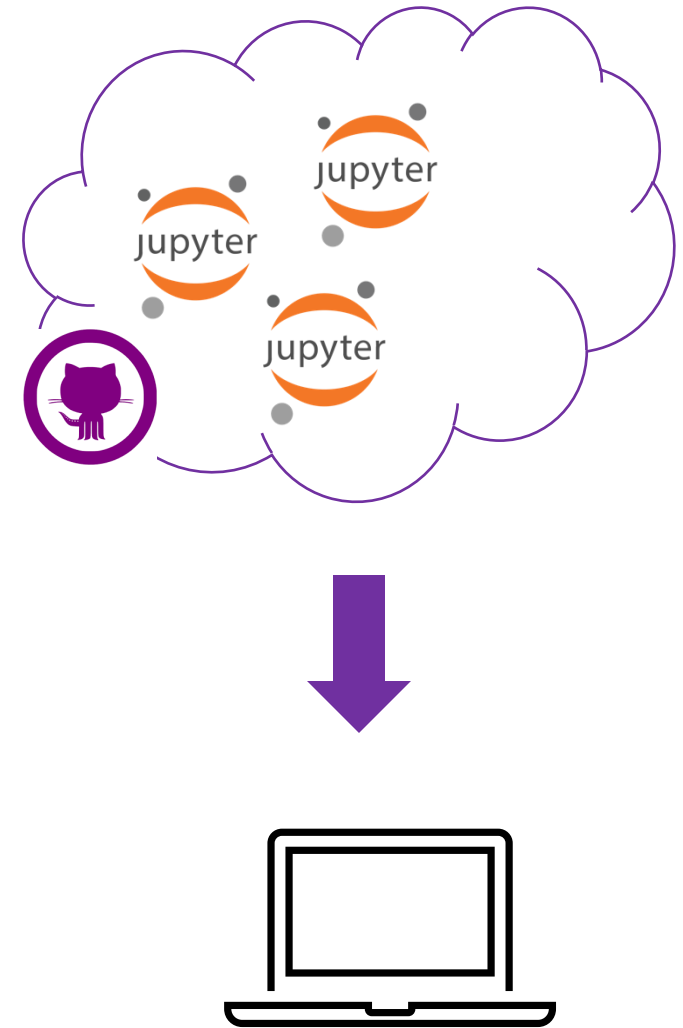
How to access and edit a remote Repository

- **Access:** download a remote GitHub repository to your local computer to facilitate.

- **Edit:** make local changes to the repository and update them to the cloud

There are two ways to <u>access</u> the repository:

1. Cloning
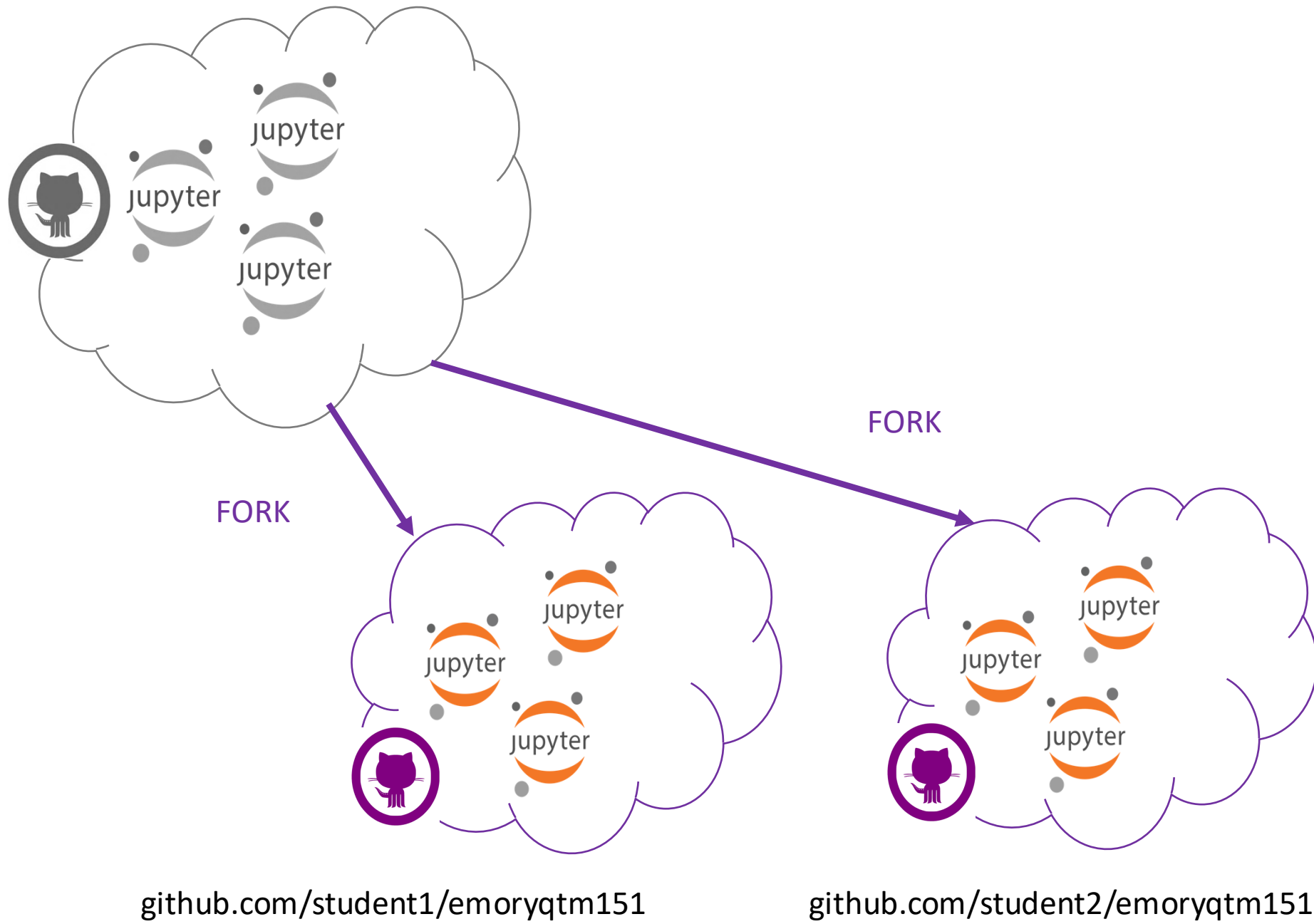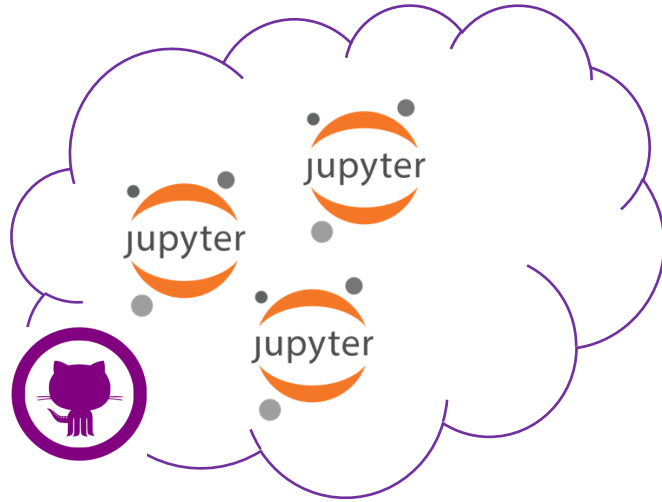2. Forking—We will use forking for this class

Cloning

- Makes a local copy of a repository (which will be linked to the online copy)

- Think of it as **downloading** a repository onto your local computer.

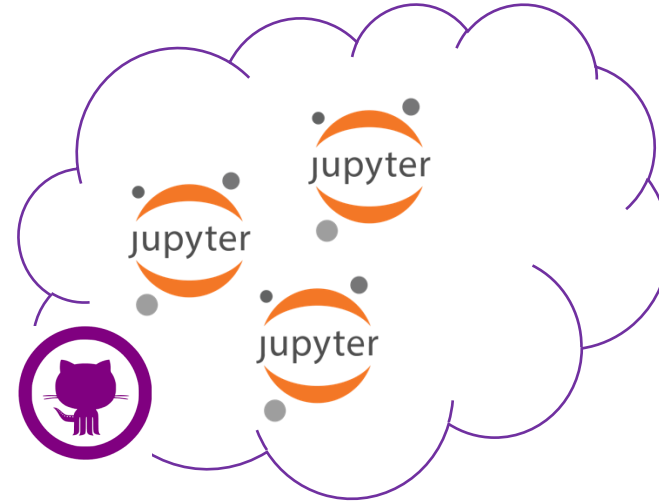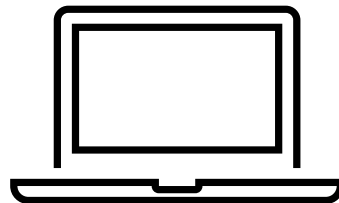- If you have permissions, you can **overwrite** the content of the remote repository

Forking

- Creates your own copy of a repository in your remote GitHub page

- Your own copy means that you will be able to **contribute changes to your copy** of the repository without affecting the original repository!
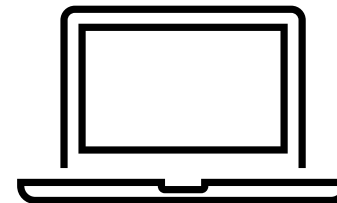
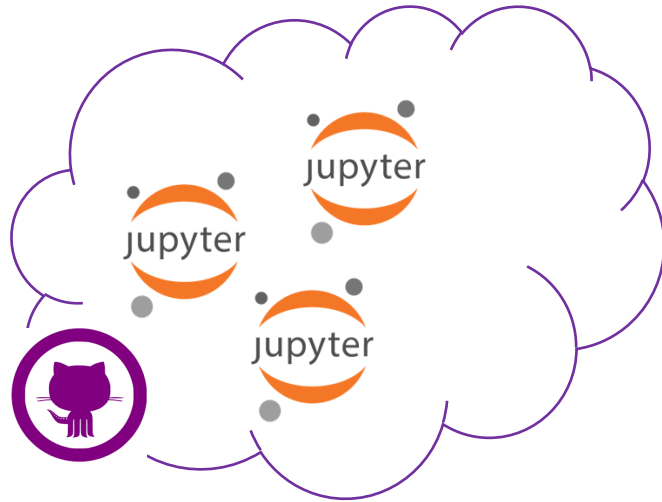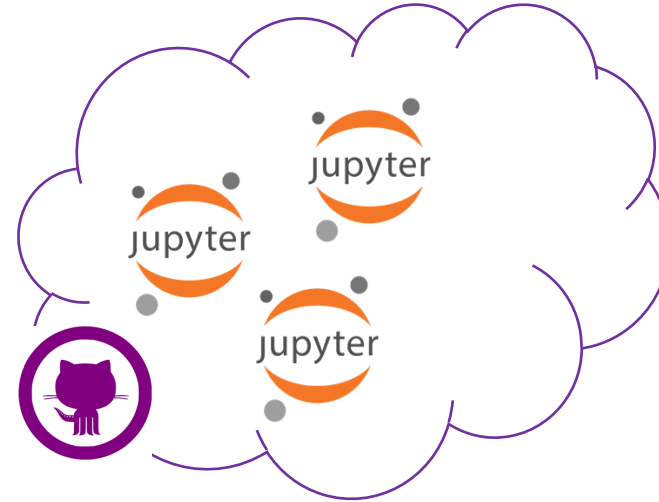github.com/student1/emoryqtm151   github.com/student2/emoryqtm151

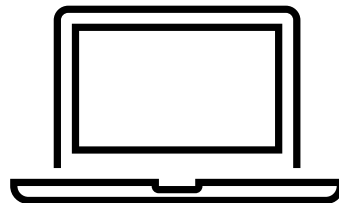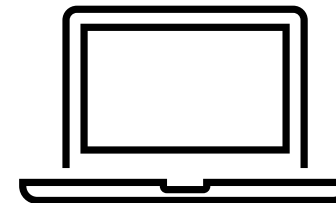github.com/student1/emoryqtm151

github.com/student2/emoryqtm151

CLONE

CLONE

github.com/student1/emoryqtm151
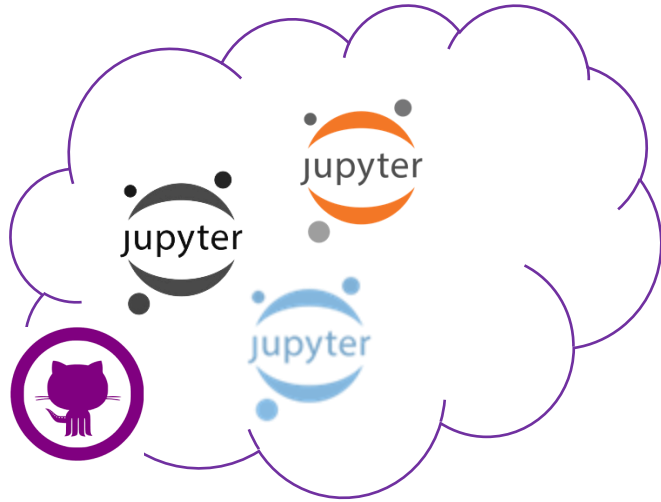
github.com/student2/emoryqtm151

PUSH

PUSH

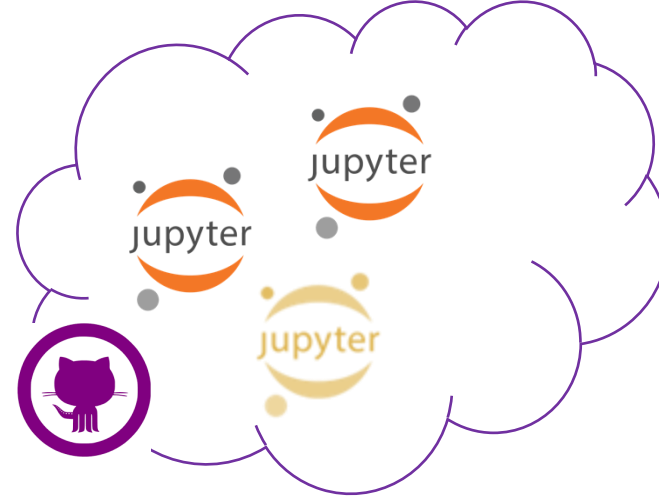The push operation will upload information from your personal computer to your website

Keep your version of the repo updated!

- Given that forking creates your own repo, the changes in the original repository **do not automatically update** in your personal repo

- If you want to make changes to files in your personal repo, **change the names** of the files so they don't get overwritten

github.com/student1/emoryqtm151

github.com/student2/emoryqtm151
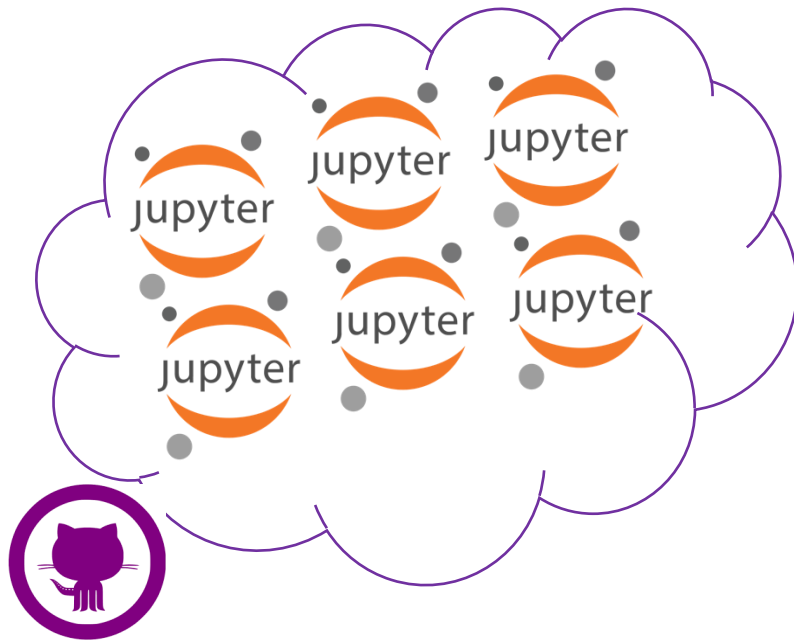
The changes made by each student are not shared across different websites.
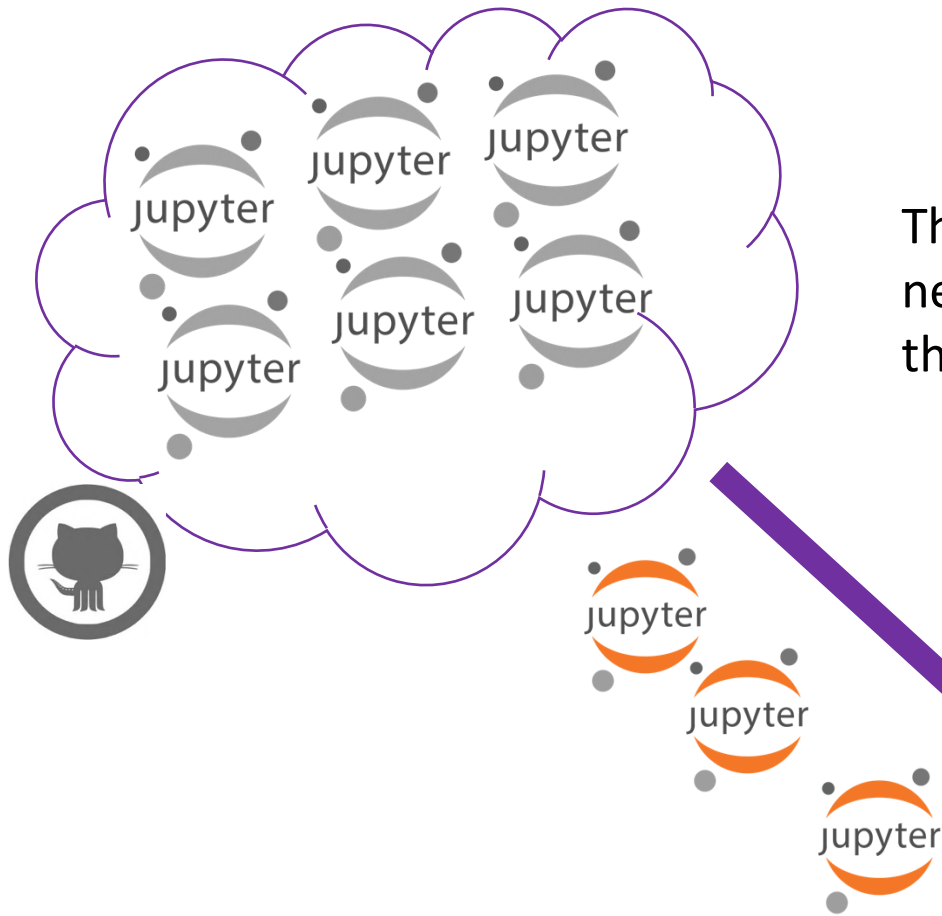
Over time the repositories could look quite distinct

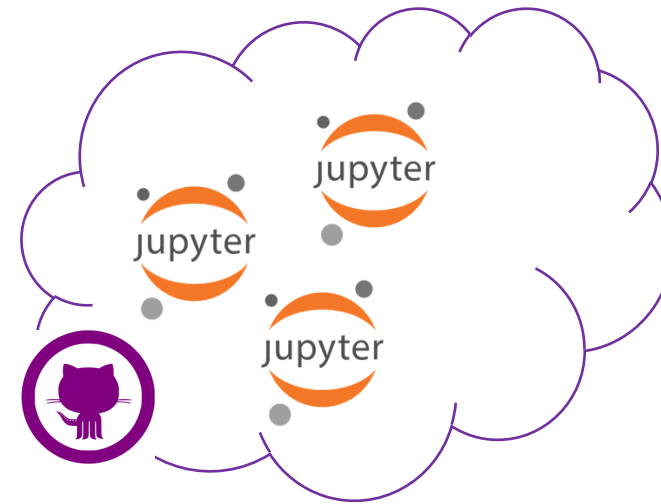The bottom panel shows the commits made by each student

Over time, more lecture notes will get added to the main branch

The option update from "upstream/main" will copy any new files or file changes, from my website to yours. See the "Github Tutorial 2" guide for details

github.com/student1/emoryqtm151

Questions about Cloning/Forking/Github?