Git and Github: a primer

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What is Git?

- Git is a Version Control System (VCS) designed to make it easier to have multiple versions of a code base, sometimes across multiple developers or teams
- It allows you to see changes you make to your code and easily revert them
- It is not github! (which is just a provider of git)

What is Github then?

- Github.com is a website that hosts git repositories on a remote server
- Hosting repositories on Github facilitates the sharing of codebases among teams by providing a GUI to easily fork or clone repos to a local machine
- By pushing your repositories to Github, you will pretty much automatically create your own developer portfolio as well!

Confirm that you have git

- Open your terminal and run “git”
- If you see a “command not recognized” error, you probably have not installed git yet
- Download it, according to your OS, here **`https://git-scm.com/downloads`**
- Good reference (mostly for R users!) can be found here **`https://happygitwithr.com`**
- Plenty of other free resources online

What do we need to know for the course?

Essentially nothing: meaning that you can simply treat the repository we will be using for the labs as a normal folder, and nothing about git will be asked during the exam. Yet:

- Using github will potentially help you during the NPS projects
- Most importantly, it will become fundamental if you will end up working in a data science/ programming related industry!

In practice

- Repository associated with the lab notebooks:

`https://github.com/alfredo-g-zapiola/labs_NPS_AY_23_24`

- Run the following commands in your terminal (in a dedicated path)
  - **`git clone https://github.com/AndreaCappozzo/labs_NPS_AY_2022_2023`** to clone it in your local folder
  - **`git pull`** to maintain the repository updated
- That's it!
- More to know if you want to be a proactive user (e.g., **`git commit`**, **`git push`** etc..)