

MY472 – Lab 1: Git and GitHub

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Course website: lse-my472.github.io

Software we will use today

- ▶ R 3.5.1 – Install from <https://www.r-project.org/>
- ▶ RStudio – Install from <https://www.rstudio.com/products/rstudio/download-server/>
- ▶ GitHub Desktop – Install from <https://desktop.github.com/>

Introduction to Git/GitHub

Git is a type of [version control](#).

- ▶ System that keeps records of your changes: helps track who made changes when
- ▶ Distributed (entire code and history on each machine) – Allows for collaborative development
- ▶ Possibility of reverting any changes and go back to previous state
- ▶ Git: created by Linus Torvald in 2005 to facilitate Linux kernel development
- ▶ Other options: Mercurial, Subversion
- ▶ [GitHub](#) allows you to host repositories and adds extra functionalities (UI, documentation, issues, user profiles...)

Basic concepts of git

- ▶ Code lives in a **repository**: collection of all files (and history)
- ▶ Every time you make changes, you need to make a **commit**:
 - ▶ Creates a snapshot of your code.
 - ▶ Informs how files have changes
 - ▶ You need to add a message explaining changes
- ▶ After you commit, you need to **push** the changes to the repository on GitHub so that others can see them
- ▶ Note – you also need to **pull** first to receive changes from other people
- ▶ When you start from a repository someone created, you will have to first **fork** it (create a copy on GitHub) and then **clone** it (download) to your computer

Our first test

1. Go to MY472 lectures repository:
<https://github.com/lse-my472/lectures>
2. **Fork** it to your own GitHub profile
3. Click on **Clone** and use GitHub desktop to create the repository in your computer
4. Find the files and open 01-RMarkdown.rmd using RStudio
5. Compile (knit) the RMarkdown file into an html file
6. Go back to GitHub Desktop and **commit** your changes
7. Then, **push** the changes back to GitHub
8. Go to GitHub and check that the new file is in the repo.

Our first assignment with GitHub Classroom

1. Access the GitHub classroom for assignment 1 through: <https://classroom.github.com/a/CSEdQujE> and accept the assignment
2. This will create your own version of the repository
3. Clone it using GitHub desktop
4. Write your personal information in `information.md`, commit the file and push the changes.
5. Fix the RMarkdown file `RMarkdown-practice.Rmd` so that it can be compiled. Commit and push this change.