# GitHub for dummies

## Step-by-step quick guide to get started

## What is GitHub?

Platform & cloud-based service that helps you:

- **store** and manage your source code (AKA the repository or 'repo')
- track and **control** changes to your code throgh **branching** (duplicating part of the source code to edit it) and **merging** (once editions are tested).

## Getting ready to use it

New

- Sign up & host a public code repository for free - browser or desktop version.
- Create a repo for each of your projects - you can connect it to your local files with GitHub Desktop.
- Get started by creating a new file or uploading an existing file.

## In each 'repo', include:

- **A README**: this is a short description to help people interested in that repo understand your project (styling with Markdown supported),
- **A LICENSE**: if you include an open source license in your repo it's easier for other people to contribute (follow these instructions)
- **A .gitignore:** When you create a new repo via the API, you can specify a .gitignore template to apply to the repo upon creation through using the REST API. This allows you to ignore a file you've committed in the past, for when you do not want to recommit a file.

## 'Issues':

- Lets you track your work on GitHub, where development happens.
- When you mention an issue in another issue or pull request, the issue's timeline reflects the cross-reference so that you can keep track of related work.
- To indicate that work is in progress, you can link an issue to a pull request.

## 'Pull requests':

- Lets you tell others about changes you've pushed to a branch in a repository on GitHub.
- Once a pull request is opened, you can discuss and review the potential changes with collaborators and add follow-up commits before your changes are merged into the base branch.

## 'Actions':

- Select a workflow to get started.
- It's useful to build, test, and deploy your code.
- It shows you runs from all workflows: you can see all commited changes.

## For DataJournos?

Especially popular with open-source projects:

- it allows you to safely store your source code to the cloud and work collaboratively: you can label issues and pull requests for new contributors
- all changes are tracked and can be reverted.

## Useful repositories for newbies:

- jakevdp/PythonDataScienceHandbook
- pandas-dev/pandas
- microsoft/Data-Science-For-Beginners
- plotly / dash
- matplotlib / matplotlib


Sources:

- Kinsta (2022) What is GitHub?
- Anson ALexander (2020) GitHub Tutorial - Beginner's Training Guide
- GitHub Docs



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