Using Github Codespaces

Hervé Mignot
EQUANCY

Introduction

Github Codespace is a:
- cloud-based (no installation on your PC)
- development environment (think VS Code or Jupyter Lab)
- on demand (you start it and stop it as needed)
- with a free tier (yes, it is free except if you use it a lot… ~60 hours per month)
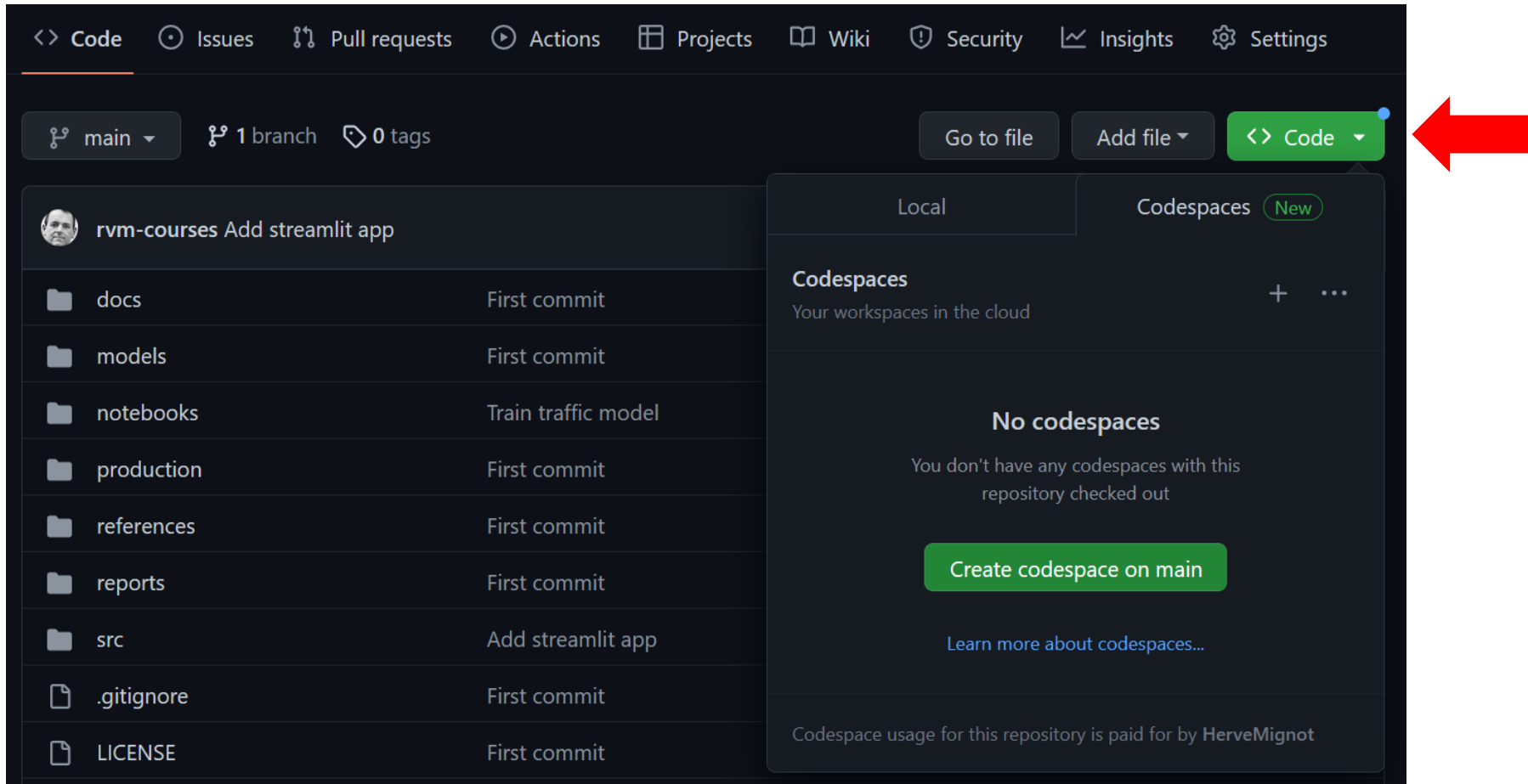
Agenda

- Activate Github Codespaces on your Github repo

- Options to run a Codespace

- Stopping your codespace is important to save your time free credits

- Deleting your codespace is also important to save your storage free credits

- Running streamlit or Dash (or similar framework that need to access your application from a browser)

Activate Github Codespaces

Github Codespaces can be used with Github repositories.
→ Go to your repo on Github and create a codespace on the main branch (by default)
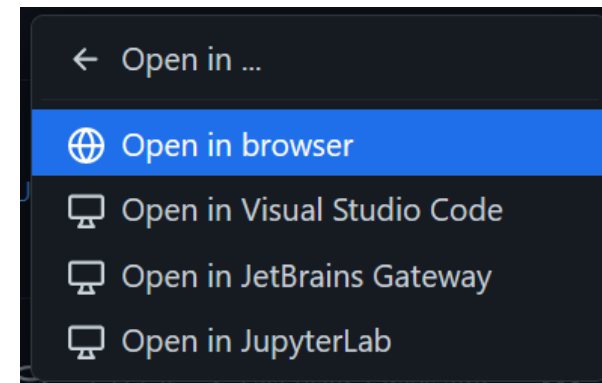
Running Codespace

Once Codespace has been activate on a repo, the environment can be used from:
1. a Browser windows (somehow the default if you are not using VS Code or Jupyter)
2. VS Code installed on your local machine
3. …
4. Jupyter installed on your local machine (installed with Anaconda most of the time)

Select option 1 to run in your browser, with no installation.

You can select the appropriate mode from the Code menu.
For option 2 and 4, be sure to have the corresponding software installed on your local machine (VS Code or Jupyter).
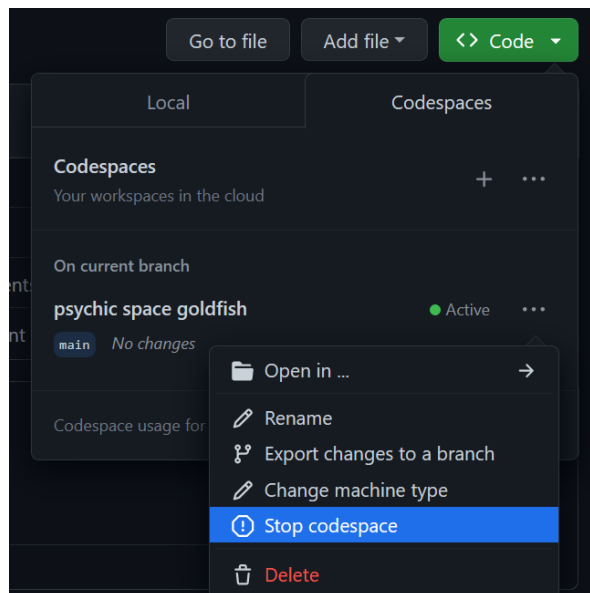
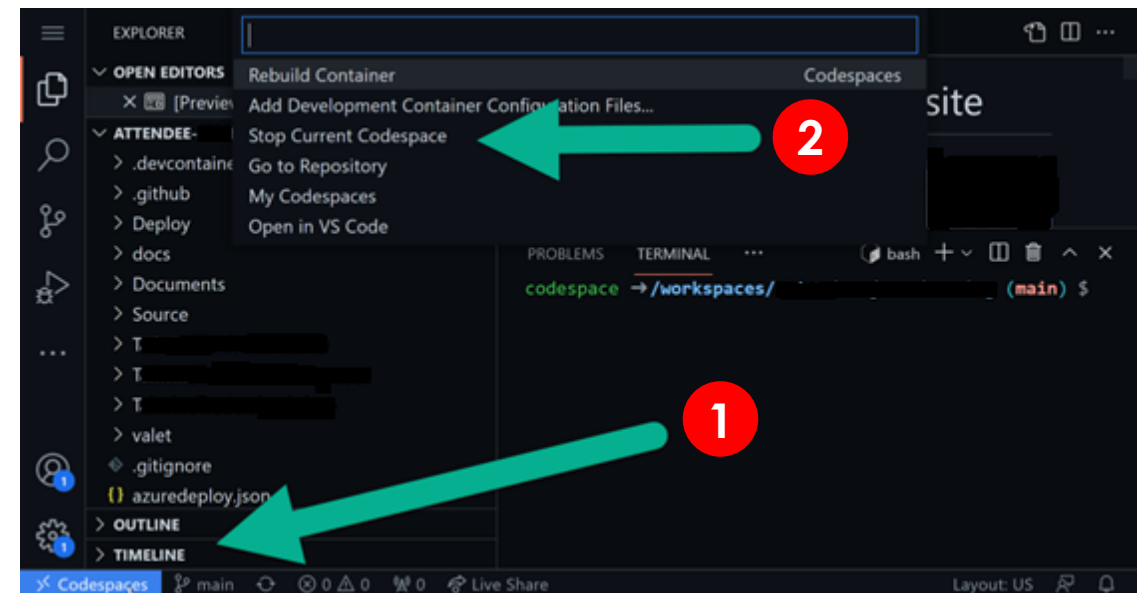# Considerations about free-tier, storage and time spent

Github Codespaces comes with a free tier of 60 hours per month for a simple environment (2 cores, usually enough for most projects), and a storage limit of 15 Gb per month (as of nov. 2022).

It is thus important to manage time when environments are up and stop environments when they are not used, as they are not stopped automatically when leaving the Codespace.

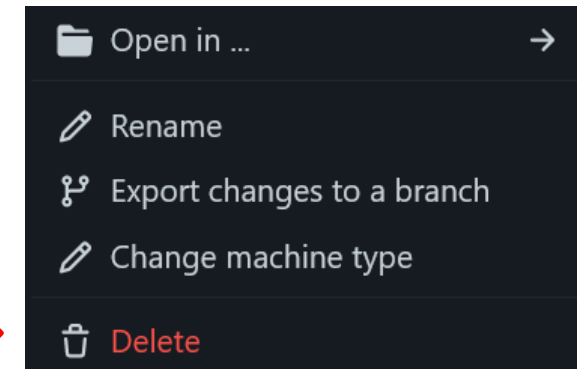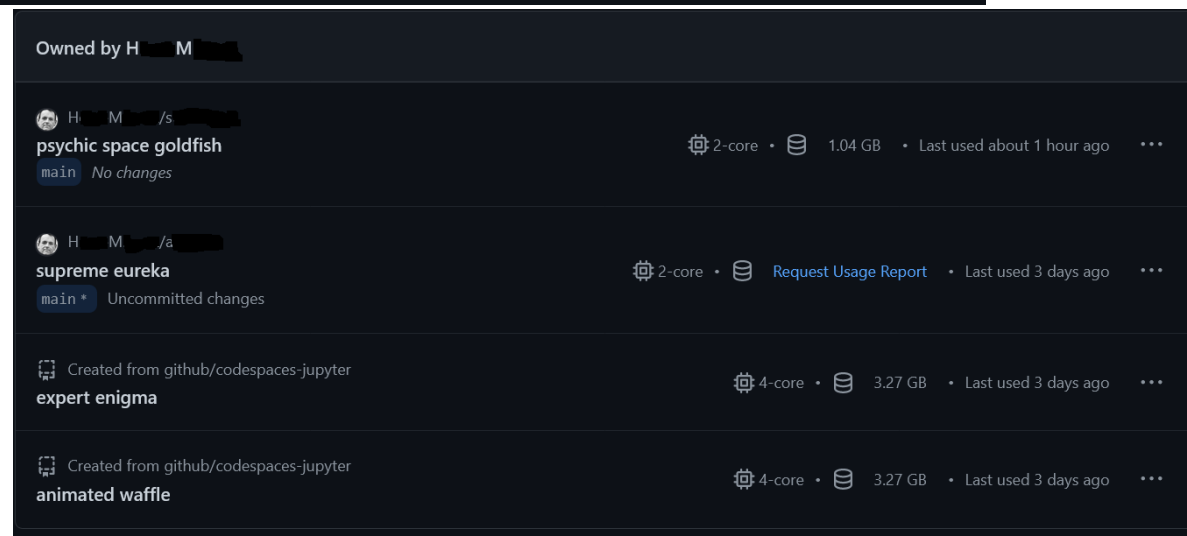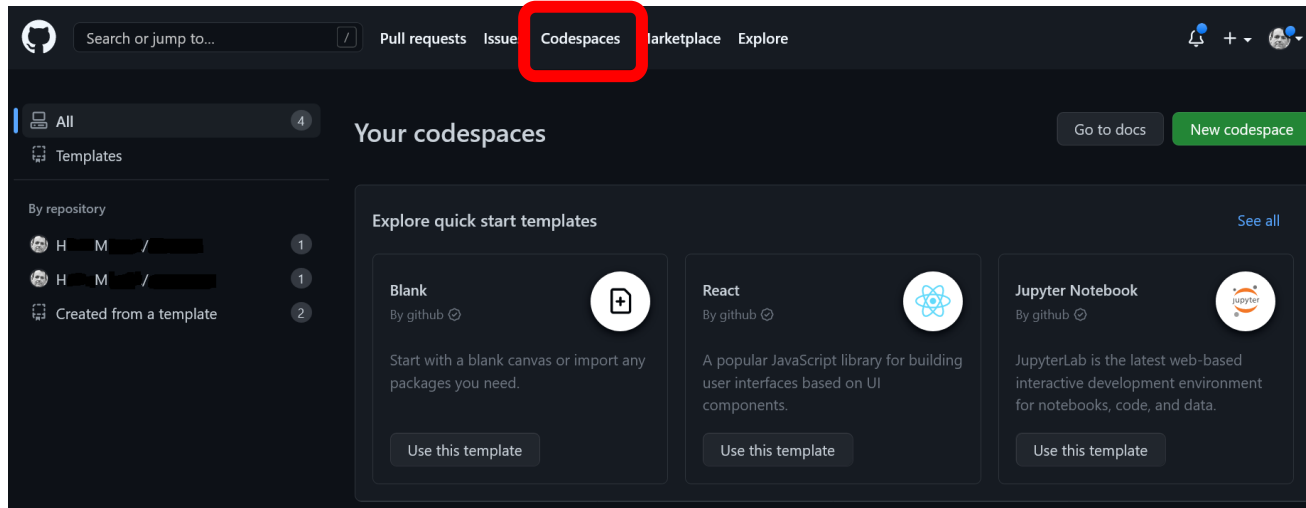*Stopping the environment from
the Github repo homepage*

*Stopping the environment from
the Codespace: [1] activate the Palette, [2]
type Stop and run the command to stop*

Considerations about free-tier, storage and time spent

In order to delete your codespace, and saved on your storage limit, for example, you can go to the **Settings** of your Github account and delete any codespace you'd like to.

Using Streamlit or Dash with Codespaces

In order to run some interactive applications, such as Streamlit or Dash, additional configurations is needed in your codespace.

Instructions for Streamlit

- Create a `.devcontainer` folder (with a dot at the beginning) in your repository
- Add in this folder the following two files:
  https://github.com/HerveMignot/airtraffic/blob/5be48e0868cbe1277727ba0f5fdf32274d37a943/.devcontainer/Dockerfile
  https://github.com/HerveMignot/airtraffic/blob/5be48e0868cbe1277727ba0f5fdf32274d37a943/.devcontainer/devcontainer.json

- Create a `.streamlit` (with a dot at the beginning) in your repository
- Add in this folder the following file:
  https://github.com/HerveMignot/airtraffic/blob/5be48e0868cbe1277727ba0f5fdf32274d37a943/.streamlit/config.toml

Instructions for Dash
To be done

equancy

4, rue Jules Lefebvre
75009 Paris - FRANCE

www.equancy.com

Hervé Mignot

herve.mignot@equancy.com