

Overview of git

What is git for?

- store the history of your code (version control)
- work in parallel with others

Basic Concepts

(git vocab)

these are git commands

Repository (repo)

- A folder with all your code
- metadata (history)



.git



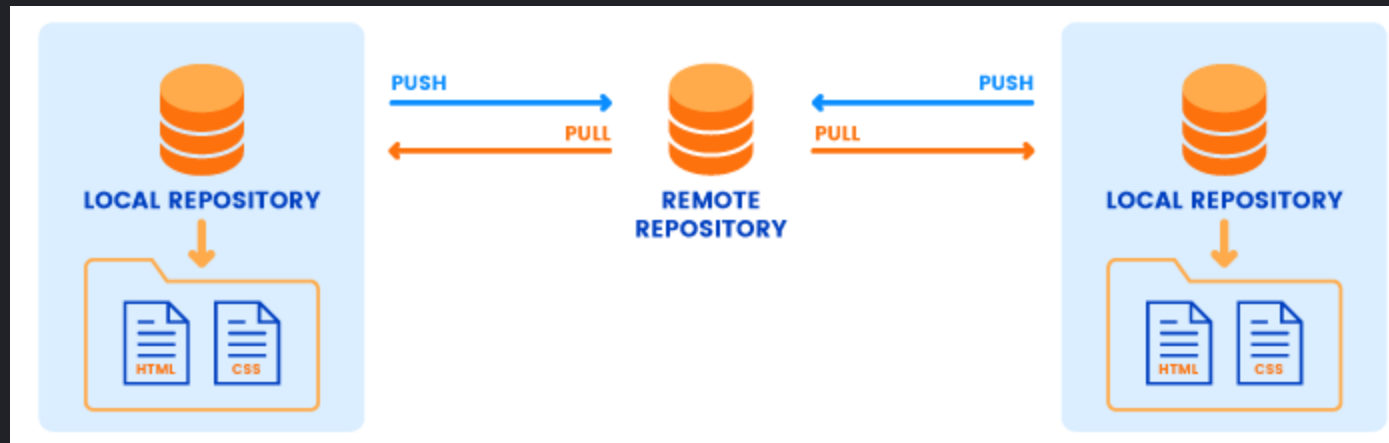
README.md



the-code.py

Local vs Remote

- Local: code on your computer
- Remote: code on (usually) Github
- `clone` download repo remote -> local



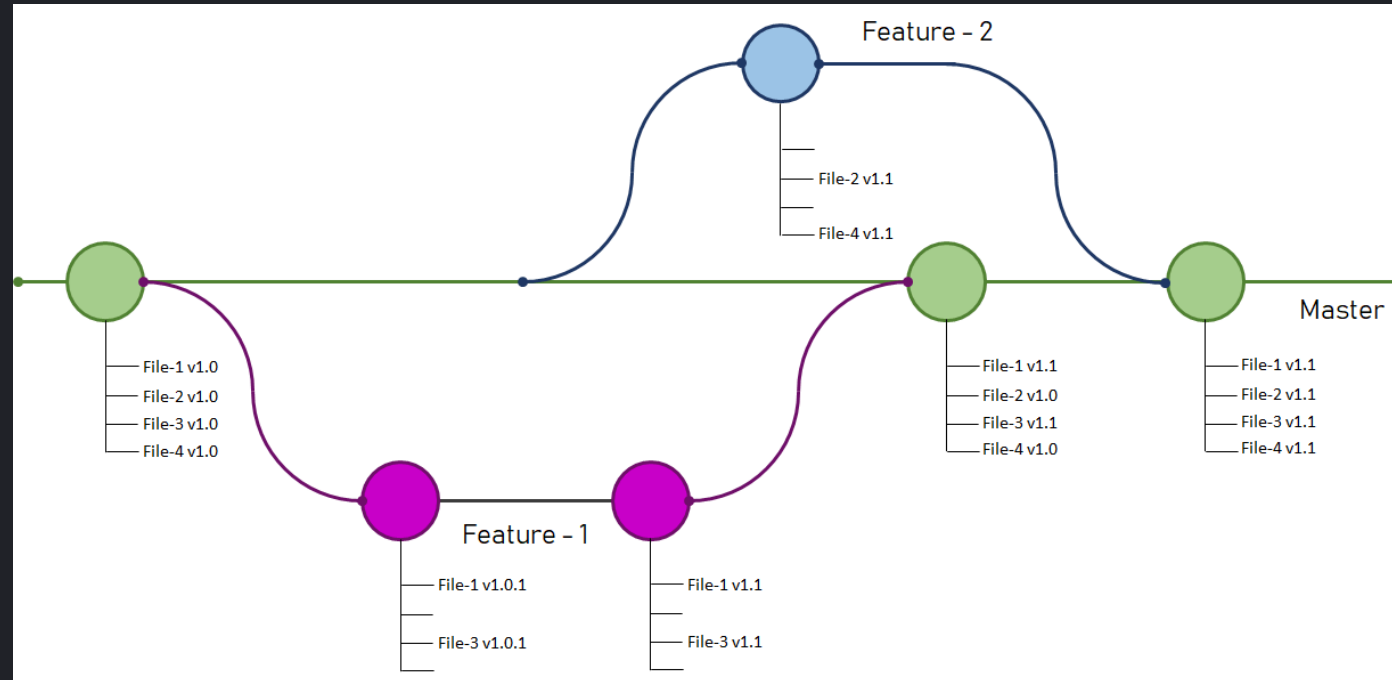
<https://rubygarage.org/blog/most-basic-git-commands-with-examples>

Commit

- A set of changes made to the code
- Who made those changes
- Short description

Branches

- Branches contain sequences of commits
- Work in parallel, then **merge** branches



Basic git workflow

0. Get latest code (`clone` / `pull`)
1. Make local changes
2. Choose which changes to share (`stage` / `add`)
3. Add a description of the changes (`commit`)
4. Send the changes to everyone (`push`)

A pragmatic git walkthrough

- Using VSCode + Github
- Use the terminal if you prefer
- You'll find *lots* of answers online

You probably already have git

```
# check if it's installed  
git --version
```

Otherwise: <https://git-scm.com/downloads>

1. Create a repo on github

Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository.](#)

Required fields are marked with an asterisk ().*

Repository template

No template ▾

Start your repository with a template repository's contents.

Owner *



Dominic-DallOsto ▾



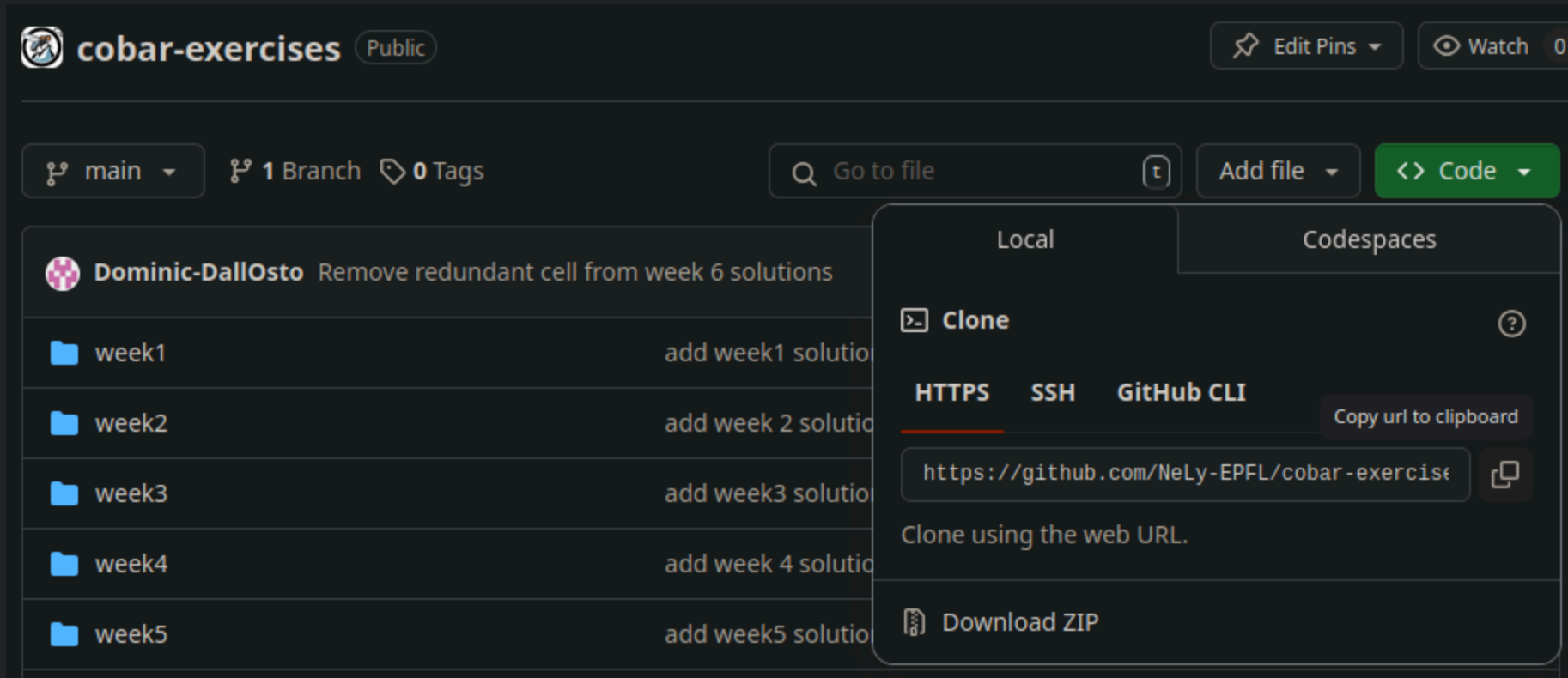
Repository name *

Great repository names are short and memorable. Need inspiration? How about **supreme-broccoli** ?

Description (optional)

<https://github.com/new>

2. Clone it locally



```
git clone https://github.com/NeLy-EPFL/cobar-exercises
```

3. Open VSCode to that folder, install the github extension

The screenshot shows the Visual Studio Code interface with the 'EXTENSIONS: MARKETPLACE' view on the left. The search bar contains 'github pull'. The 'GitHub Pull Requests' extension by GitHub is highlighted. The main panel shows the details for this extension, including its GitHub repository link, star count, and installation status. The 'Installation' section on the right shows the extension is installed and its version is 0.108.0.

EXTENSIONS: MARKETPLACE

Search: github pull

- GitHub Pull Requests** (132ms)
Pull Request and Issue Provider for Git...
GitHub
- GitHub** (1M, 4.5)
Integrates github and its workflows int...
KnisterPeter
- GitHub Pull Request Monitor** (19K, 5)
Monitors the status of GitHub pull requ...
Erich Behrens
- pull-requester** (3K, 3.5)
This extension allows you to review git...
yossi-eynav
- Blame Github's Pull Requ...** (901, 3.5)
Blame and open Github's associated PR.
tejanium

Extension: GitHub Pull Requests

GitHub Pull Requests
GitHub | github.com | 27,678,938 | 4.5 (181)
Pull Request and Issue Provider for GitHub

Disable | Uninstall | Switch to Pre-Release Version | Auto Update

DETAILS | FEATURES | CHANGELOG | DEPENDENCIES

Azure Pipelines succeeded

Review and manage your GitHub pull requests and issues directly in VS Code

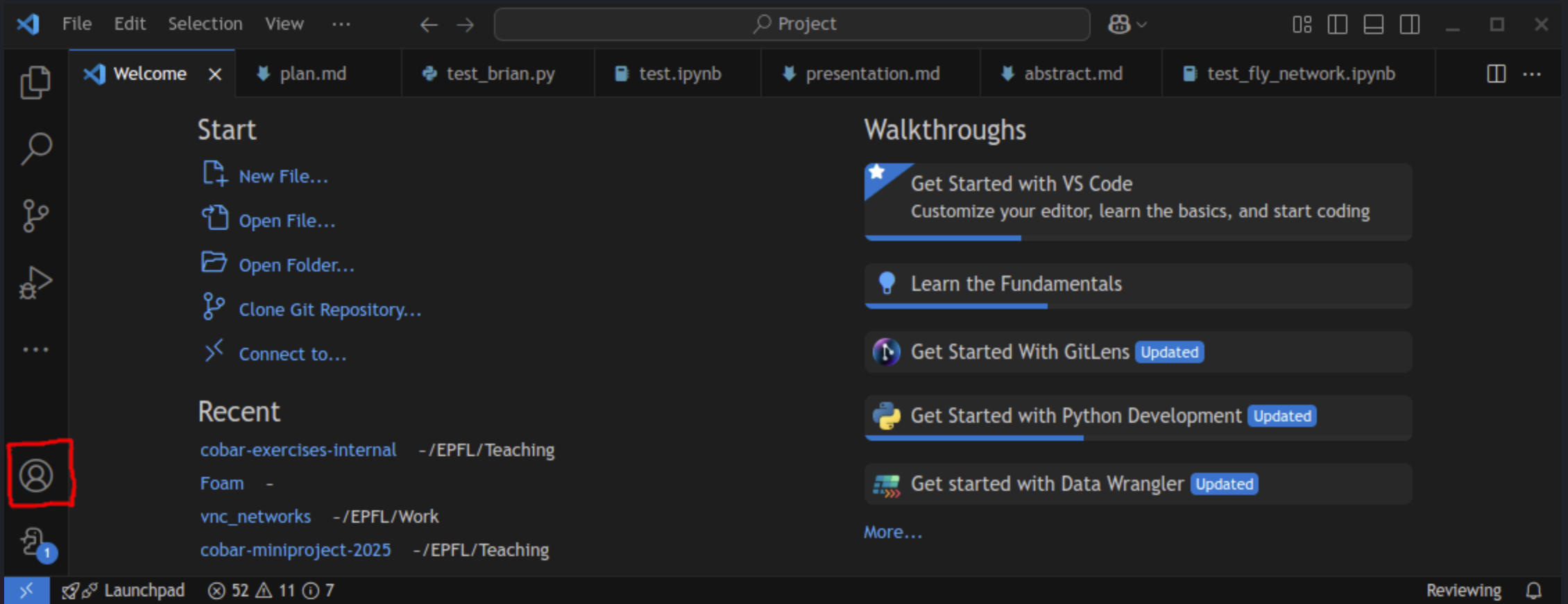
This extension allows you to review and manage GitHub pull requests and issues in Visual Studio Code. The support includes:

- Authenticating and connecting VS Code to GitHub and

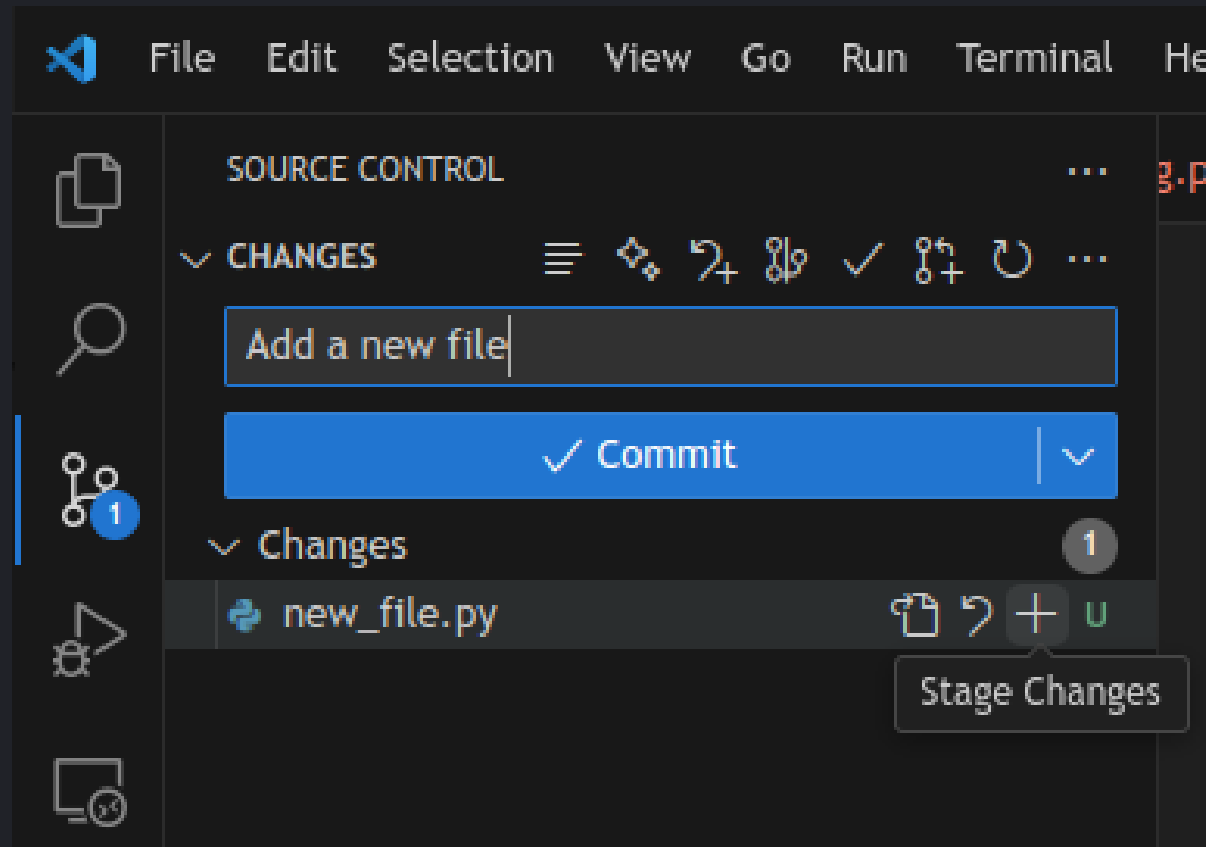
Installation

Identifier	github.vscode-pull-request-github
Version	0.108.0
Last Updated	2025-04-04, 10:37:21

4. Sign into github in VSCode



5. Add a new file to your repo, stage (+), add a message, then commit, push



If you get an error

```
git config --global user.name "Your name"  
git config --global user.email "your.email@mail.com"
```


Other things to do

- Create a new branch (Ctrl+Shift+P > Create branch)
- make a change
- commit
- merge into main (Ctrl+Shift+P > Merge...)

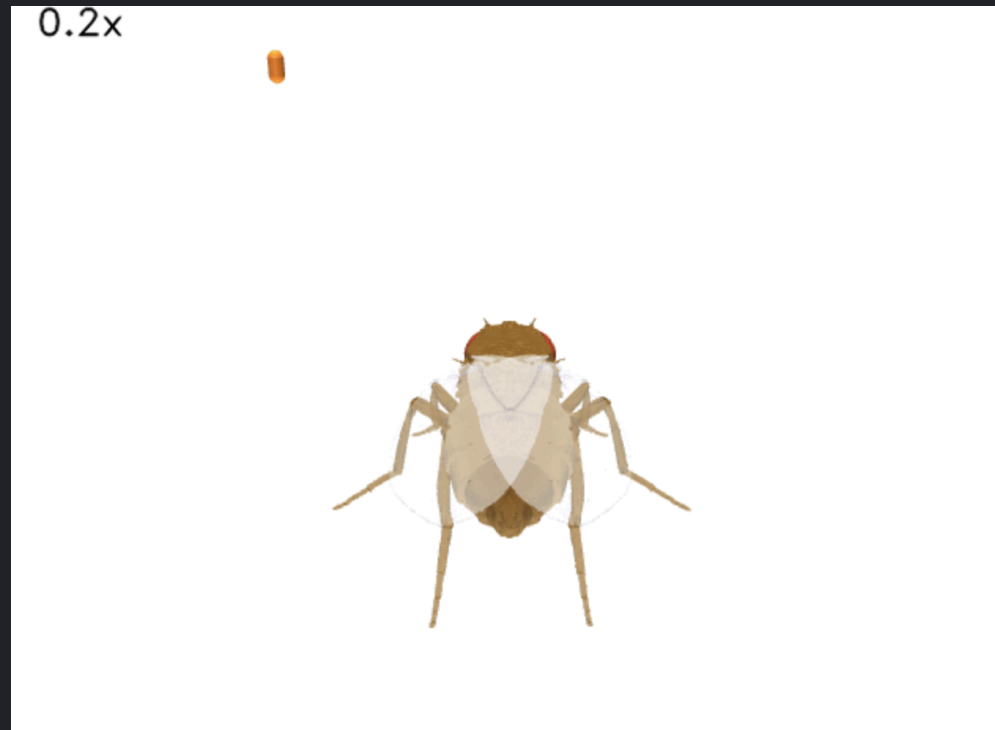
Why is this useful for you?

- Work in parallel on different levels, then combine
- Reset the code to an old (working) version
- Everyone uses it

Project presentation

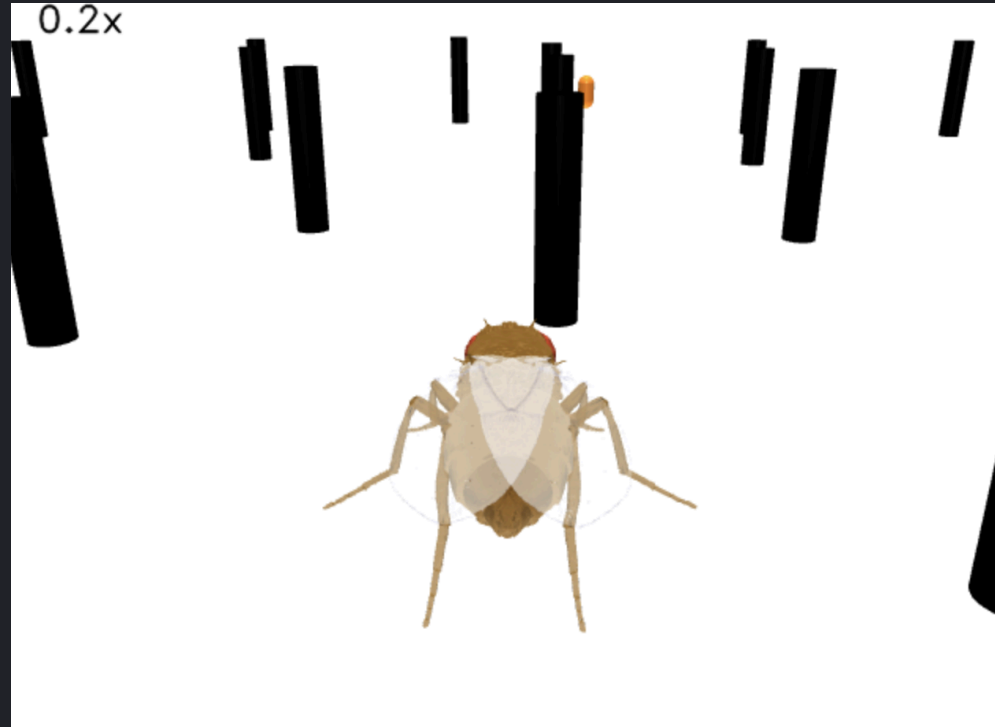
- 5 levels
- Using multiple senses

Level 1 - Empty Odour Arena



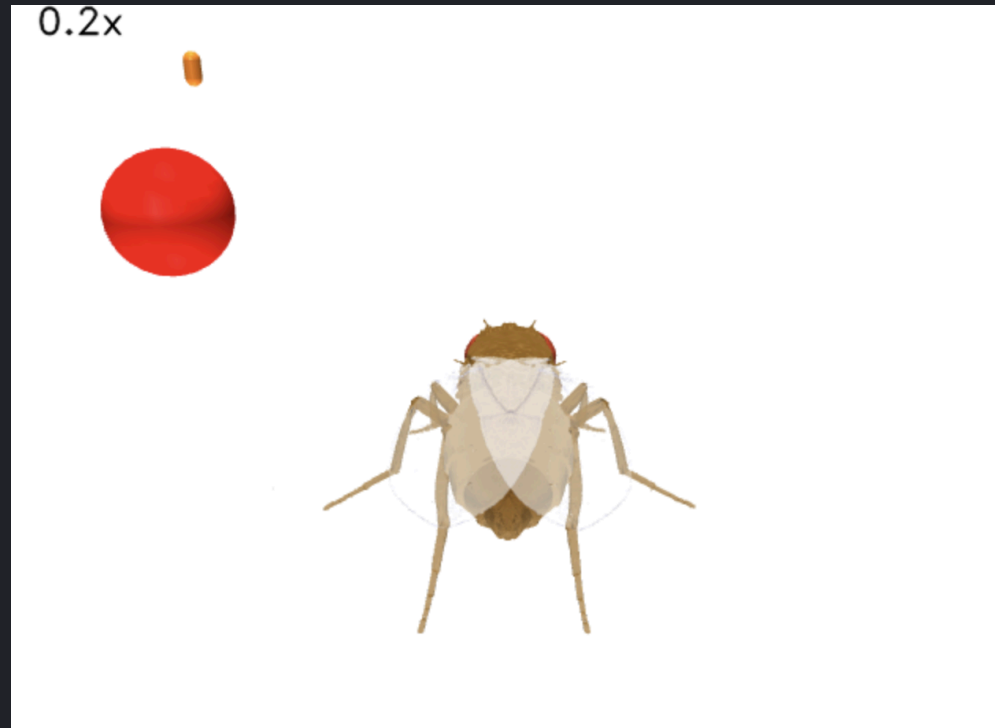
Goal: get to the odour in an empty environment

Level 2 - Scattered Pillars



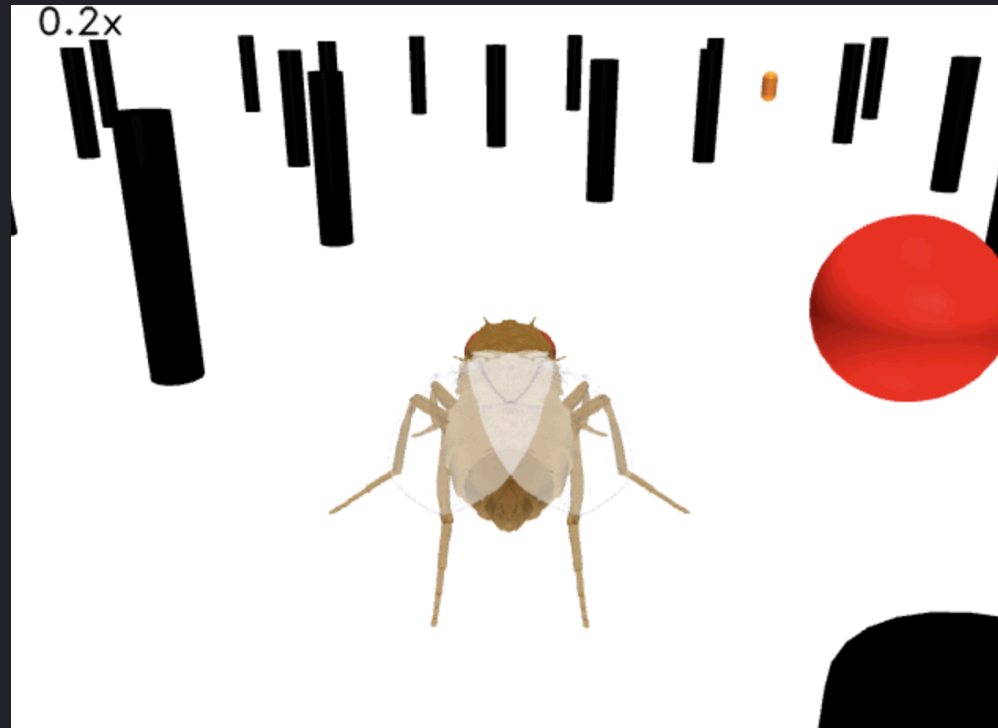
Goal: get to the odour while avoiding the pillars

Level 3 - A threat approaches



Goal: get to the odour while avoiding the balls coming towards the fly

Level 4 - Pillars + threats



Goal: get to the odour, avoiding both the pillars and attacking balls

Level 5 - Return to Nest



Goal: same as level 4, but return to the fly's spawn point after collecting the odour

Assessment guidelines

- Performance
- Report
- Bonuses (fly-like implementation, presentation)

More specific details to come!

Goal of today

- Explore the environments
- Discuss strategies
- Organise the work

Demo time!