

1 Initial setup

These steps only need to be followed the very first time (with a newly installed device).

- Download and install [git](#).
- Clone the git repository: <https://github.com/JarneRenders/Imaginary2022Apps>
 - Click the green code button in the top right.
 - Click on HTTPS and copy the link.
 - Enter `git clone --recurse-submodules <copied link>` in Git Bash
- If the authenticity of github.com cannot be established, copy and paste the required fingerprint from [here](#).
- Download and install [Python](#).
 - Make sure to add Python 3.10 to PATH (checkbox).
- Test if the installation was successful:
 - Enter `python -V` into Git Bash. It should return `Python 3.10.6`.
 - If it does not: enter `python3 -V`. It should return `Python 3.10.6`.
 - If only the latter works: use `python3` instead of `python` below.

2 Starting the program

If the above steps have been followed once, we can start the (Python) http server and run the apps locally.

- Open Git Bash.
- Go to the root directory of the git repository: default method:
`cd ~/Imaginary2022Apps`.
- Start the http server by `python -m http.server`. This starts a local server with port 8000.
 - Sometime Windows Firewall asks to allow access to Python. You should do so. (Requires administrator privileges).
- Open your browser (not Mozilla Firefox!) and enter localhost:8000 in the adress bar.

3 Possible problems

- The following error when trying to clone the git repository: fatal: protocol 'https' is not supported:
 - Try retyping the command and pasting the copied link with the right mouse button. Sometimes ctrl+v or ctrl+shift+v leaves invisible characters.
- Both `python -V` and `python3 -V` are unrecognized commands.
 - Possibly python was not added to PATH.
 - Right-click *This PC* and go to *Properties*. Select *Advanced System Settings* (on the right). In this new window click on *Environment Variables* and look for *Path* in *System Variables*. Select this and press *Edit....*
 - Click on new and enter the python install location (by default %LOCALAPPDATA%\Programs\Python\Python310)
 - Restart Git Bash.
- Going to localhost:8000 gives a white page with directories.
 - Make sure to start the http server in the correct directory. Move to the Imaginary2022Apps directory (in the default case use: `cd ~/Imaginary2022Apps`) and then start the http server (`python -m http.server`)
- Clicking on a start page button gives Error 404.
 - If the gradient-descent and neural-numbers folders are empty, the submodules have not been correctly downloaded.
 - Open Git Bash and move to the git directory (by default `cd ~/Imaginary2022Apps`).
 - Enter `git submodule update --init`.
- Seeing only text in reinforcement learning:
 - This happens when using Firefox. The programs have been tested using Google Chrome and Microsoft Edge.