Set-up Guide

This Mini-Challenge 1 is a Jupyter notebook. Optimally, this is executed in an isolated virtual python environment to avoid issues with package versions. This guide explains the setup.

This setup-guide assumes a bash-like command line environment like with Windows-WSL, MaxOS, or Linux.

The exercise can be solved with any Jupyter installation, as long as the required packages in compatible versions are installed. For the packages and versions, see the file `requirements.txt`.

Assumptions:

- Phyton3 is installed on the system, else: https://www.python.org/downloads/
- Pip3 is installed on the system, else https://docs.python.org/3/installing/index.html

1. Installing Jupyter, setting up virtual environment, and custom ikernel:

Unpack the zip containing the Mini-Challenge-1.

In a bash-terminal, run (one command per line, commands may differ on your system)

```
# change to the unpacked MC1 directory
cd /path/to/the/mini/challenge/directory/MC1

# installing jypter, might already be installed by your system.
pip3 install notebook

python3 -m venv env    # create virtual environment called environment
source env/bin/activate  # activate the virtual environment (in bash)

pip3 install -r requirements.txt  # install the required packages

# allows for creating custom kernels
pip3 install ipykernel

# creating custom kernel called “gki-venv”, allows to use the packages
# installed in this virtual environment
python3 -m ipykernel install --user --name=gki-venv
```

2. Start Jupyter and chose the kernel gki-venv

Open the Jupyter notebook and chose the kernel gki-venv when you have loaded the MC-1 notebook.

One way of doing this is to start Jupyter in the directory MC1 as follows (execute in bash terminal)

```
# change to the unpacked MC1 directory
cd /path/to/the/mini/challenge/directory/MC1

jupyter notebook  # start jupyter
```

Then open the file “GKI-Mini-Callenge-1.ipynb” in the jupyter browser interface ans start solving the challenge.