

SDMX Experts Workshop Advanced Capacity-building in Amsterdam

Setting Up Your Python Coding Environment

Disclaimer

This is of course just a recommendation, we don't want anyone to feel pressured to change their trusted configuration. But if you want to replicate what you'll see in **Module 2**, here's how to do it.

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Overview

Recent changes in best practices for using Python have led to a shift from Anaconda to Visual Studio Code (VS Code) for Jupyter notebooks. This guide will help you set up your coding environment for a seamless experience during our workshop.

Using Git with Visual Studio Code (Official Beginner Tutorial)

This is why we switched to VS Code:

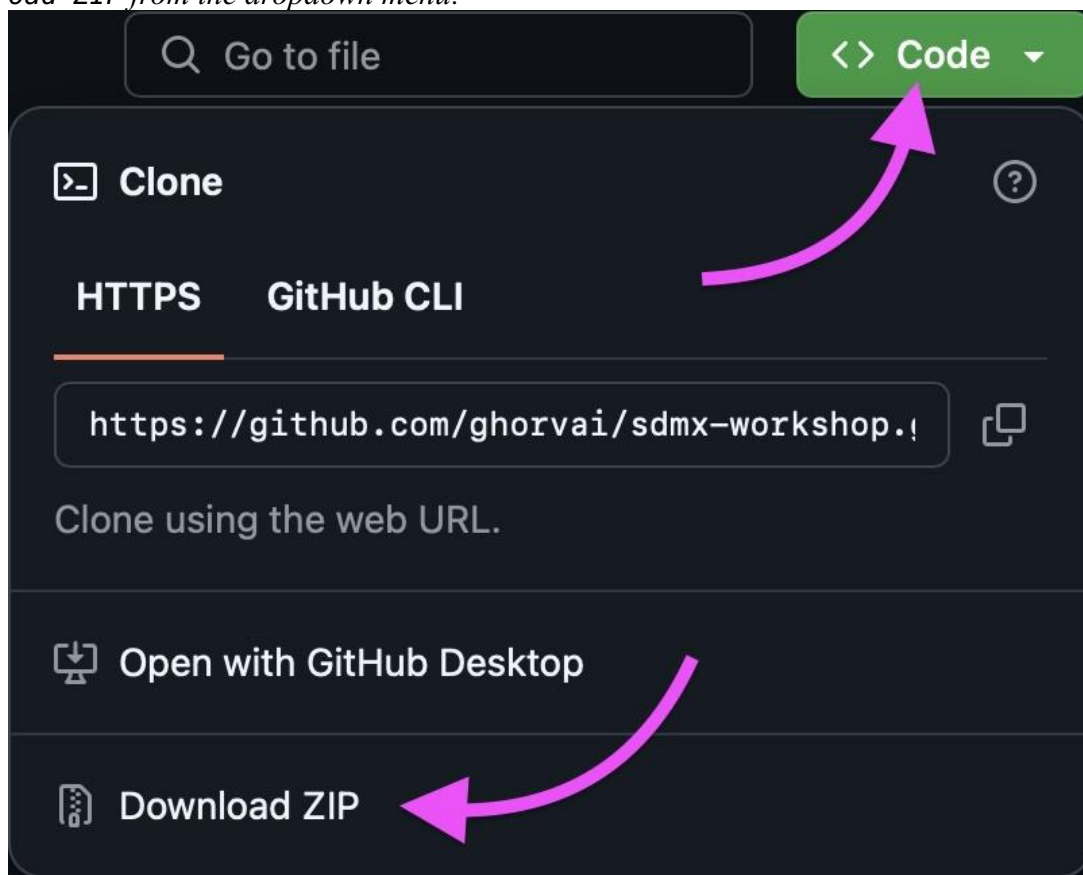
1. Better Virtual Environment Management: VS Code offers superior virtual environment management compared to Anaconda. ***2. Free Access:*** Anaconda is now only free for individuals and small organizations, making VS Code a more accessible option. ***3. Integrated Development:*** VS Code integrates well with Git and other tools, providing a comprehensive development environment.

Steps to Set Up Your Environment

1. Install Python, Git, and Visual Studio Code

- **Python:** Download and install the latest version from the [official Python website](#).
- **Visual Studio Code:** Download and install VS Code from the [official VS Code website](#).
- (*Optional) **Git****: Download and install Git from the [official Git website](#).

**As an alternative to installing Git, you can download the entire repository directly from GitHub: - Navigate to <https://github.com/ghorvai/sdmx-workshop> and download the repository by clicking the green < > Code button and selecting Download ZIP from the dropdown menu:*



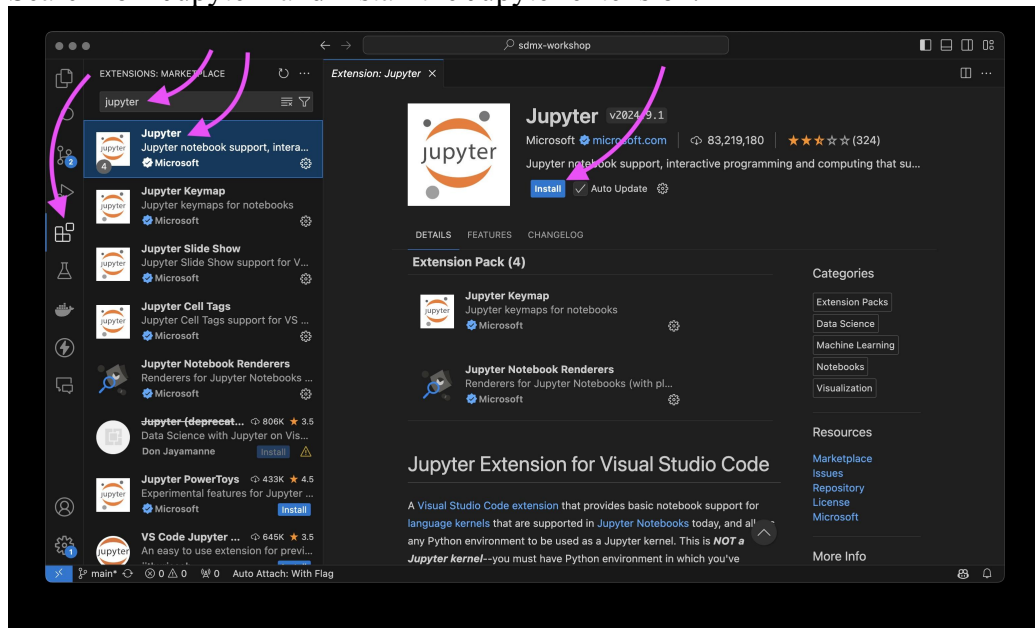
*- Unzip the downloaded file into a folder of your choice. - Open VSCode. - Open the folder by selecting **File > Open Folder...** from the menu bar.*

*You can now skip **step 3. Clone the Workshop Repository**.*

2. Install the Jupyter Notebook Extension in VS Code

- Open VS Code.
- Go to the Extensions view by clicking on the Extensions icon in the Activity Bar on the left side of the window.

- Search for “Jupyter” and install the Jupyter extension.



3. Clone the Workshop Repository

- Open a terminal in VS Code by selecting **View > Terminal** from the menu bar.
 - Navigate to the folder where you want to download the workshop contents.
 - Run the following command to clone the repository:
- ```
git clone https://github.com/ghorvai/sdmx-workshop.git
```
- Open the folder by selecting **File > Open Folder...** from the menu bar.

### 4. Create a Virtual Environment

- In the terminal, navigate to the cloned repository folder if you are not already there.
- Run the following command to create a virtual environment:

```
python -m venv .venv
```

This will create a virtual environment named `.venv`.

### 5. Activate the Virtual Environment

- **Windows:**

```
.\.venv\Scripts\activate
```

- **Mac/Linux:**

```
source ./venv/bin/activate
```

## 6. Install Required Libraries

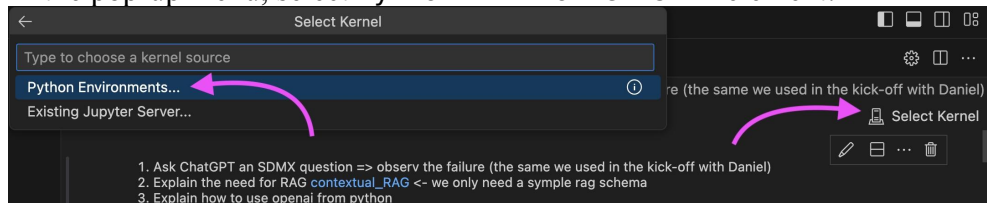
- In the terminal, ensure you're in the virtual environment by checking for the (.venv) prefix before the command line.
- Run the following command to install the required libraries:

```
pip install -r requirements.txt
```

## Using the environment for the Jupyter notebooks

- In VSCode, go to the Explorer view by clicking on the Explorer icon in the Activity Bar on the left side of the window.
- Navigate to the workshop\_notebooks folder and select any Jupyter notebook file with the .ipynb extension.
- You may need to select a kernel, if you have not already done so:
  - Click the Select Kernel button in the upper right corner of the notebook.

In the pop-up menu, select Python Environments... element:



- Select ★ .venv (likely the first entry) from the list.
- You can now run the notebook cells. 🎉