

# **Effective Programming Practices for Economists**

## **Basic Python**

### **Executing notebooks in VS Code**

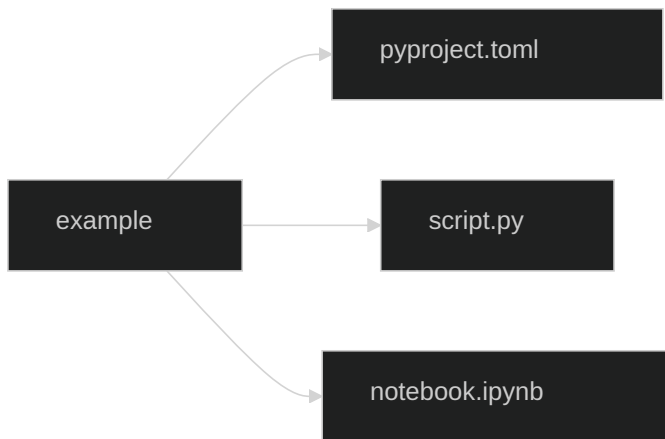
Janoś Gabler, Hans-Martin von Gaudecker, and Tim Mensinger

# Preparation

We assume you have:

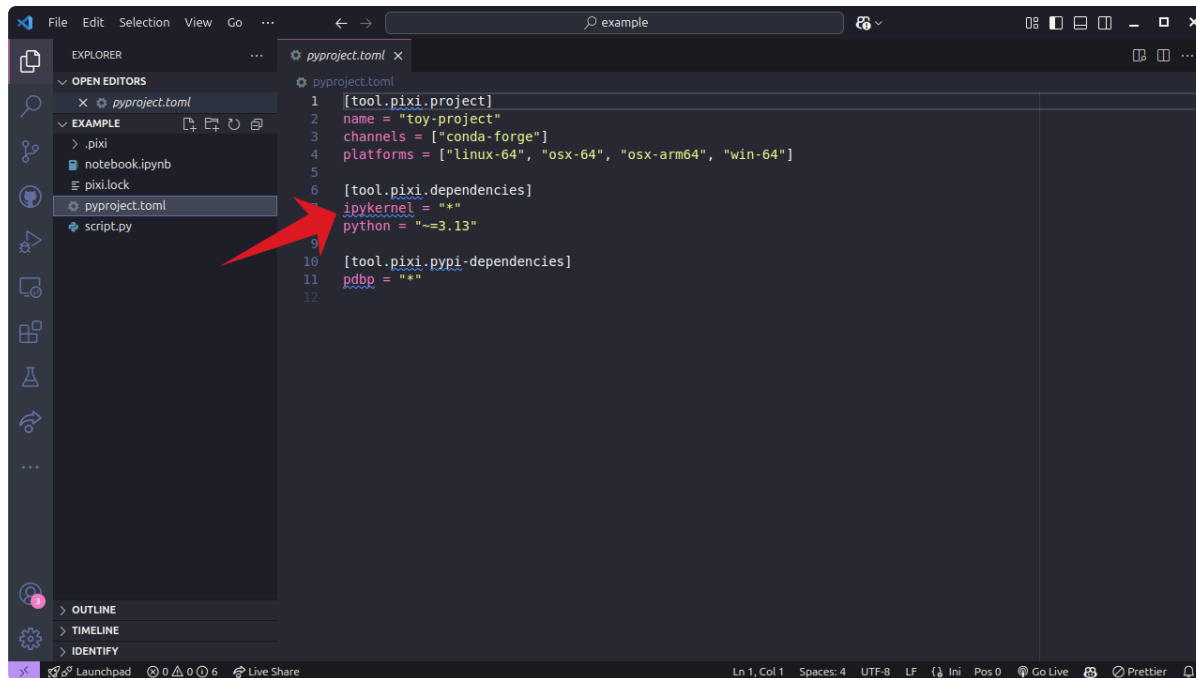
- Installed pixi
- Installed VS Code with all relevant Python extensions
- Opened the root directory of your project in VS Code, which contains a `pyproject.toml` file installing the `ipykernel` package
- Ran some pixi command and picked the correct Python interpreter in VS Code (see previous slide deck)

# Example project structure



- The entire directory `example` is opened in VS Code
- We want to run `notebook.ipynb` in VS Code

# 1. Prerequisites: ipykernel

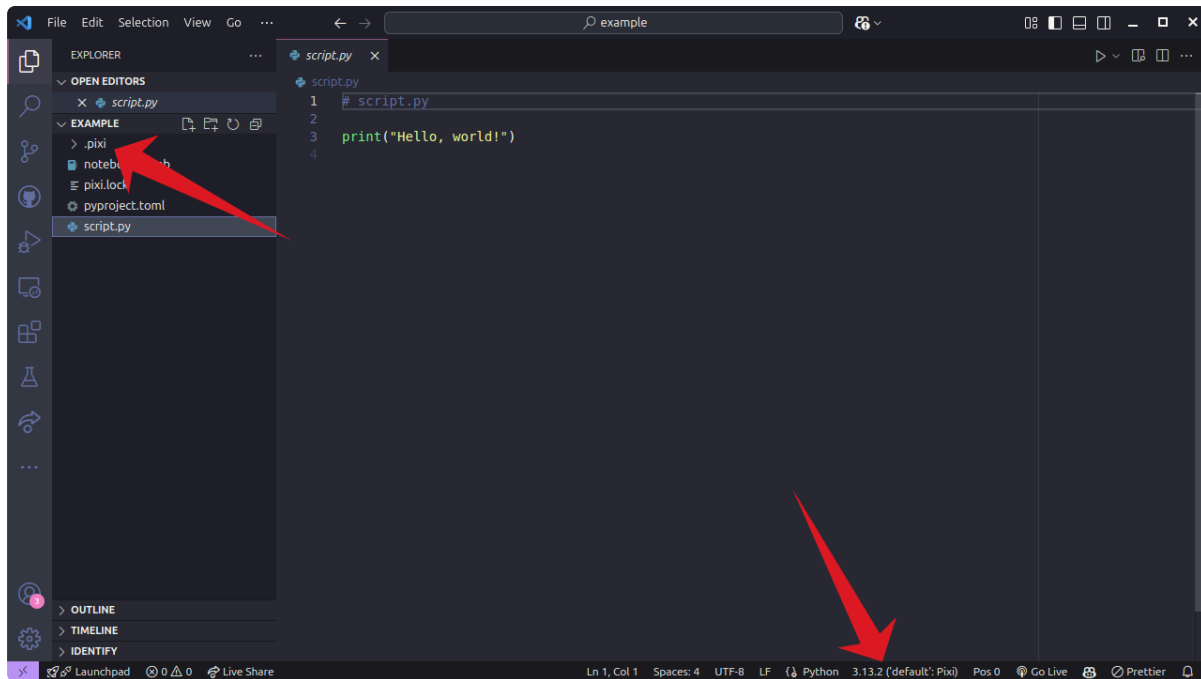


The screenshot shows a VS Code editor window with the `pyproject.toml` file open. The Explorer sidebar on the left shows the project structure, including `pyproject.toml` and `script.py`. A red arrow points to the `ipykernel` dependency in the `[tool.pypi.dependencies]` section of the `pyproject.toml` file. The code in the editor is as follows:

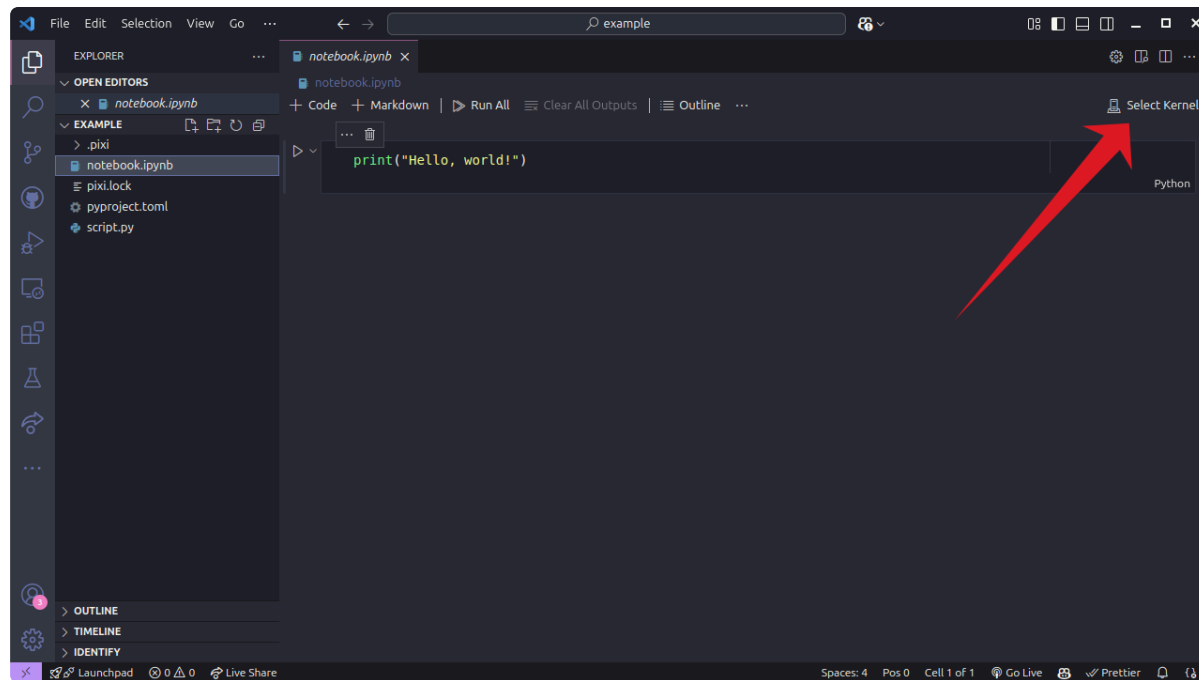
```
1 [tool.pypi.project]
2 name = "toy-project"
3 channels = ["conda-forge"]
4 platforms = ["linux-64", "osx-64", "osx-arm64", "win-64"]
5
6 [tool.pypi.dependencies]
7 ipykernel = "*"
8 python = "~=3.13"
9
10 [tool.pypi.pypi-dependencies]
11 pdbp = "*"
12
```

The status bar at the bottom indicates the file is at Line 1, Column 1, with 4 spaces, UTF-8 encoding, LF line endings, and is using the Prettier formatter.

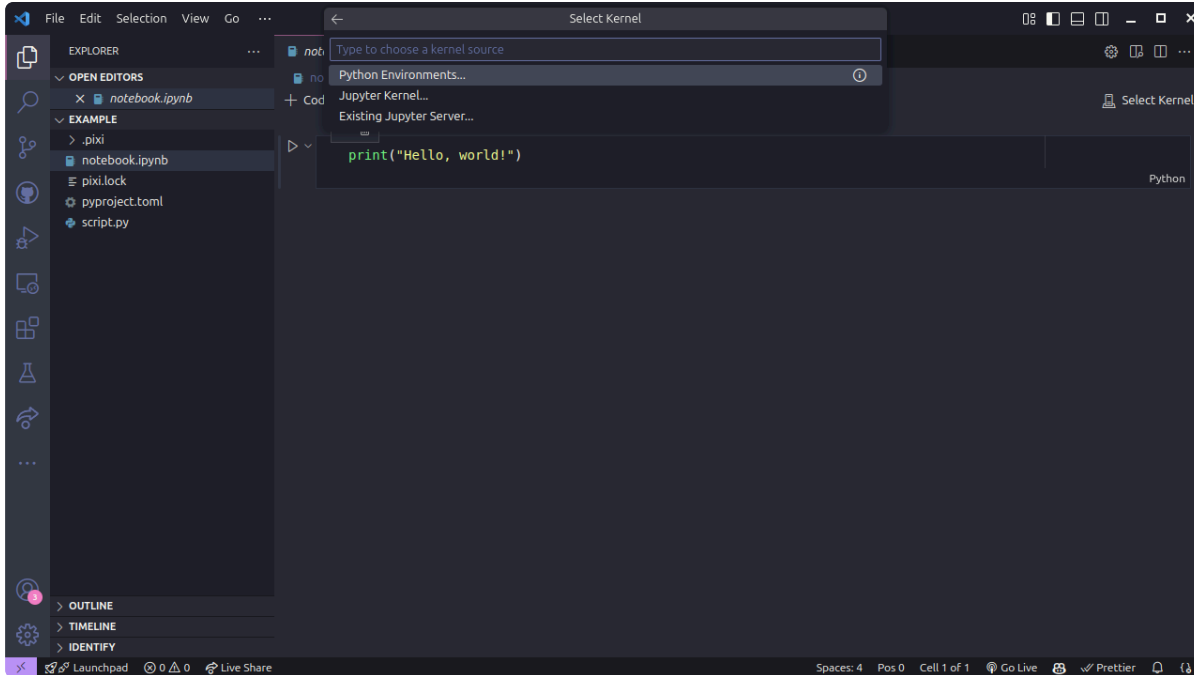
## 2. Prerequisites: Python env picked



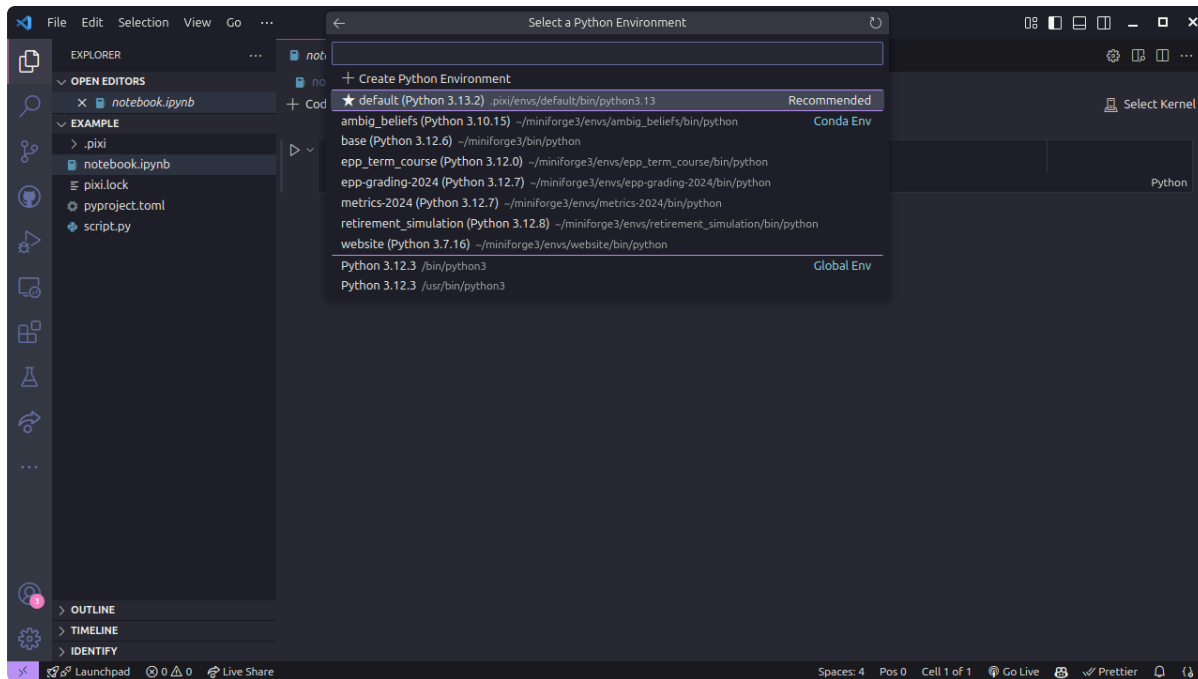
# 3. Select kernel



## 4. Select Python environment

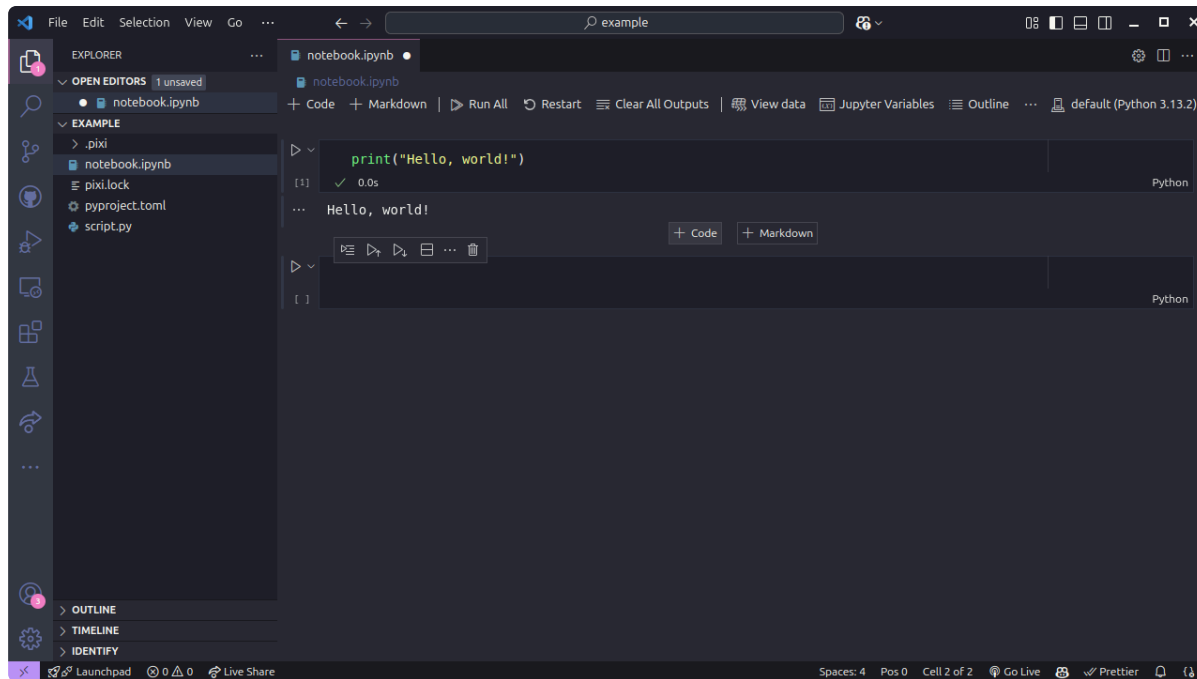


# 5. Select Python environment "default"





## 6. Run cell via shift + enter



# Important

Whenever you come back to the project, you start directly with the last step

# Keyboard shortcuts

Key combination	Action
Ctrl+S	Save
ESC	Change the cell mode
A	Add a cell above
B	Add a cell below
J or down arrow key	Change a cell to below
K or up arrow key	Change a cell to above
Ctrl+Enter	Run the currently selected cell and stay in that cell
Shift+Enter	Run the currently selected cell and move to the next cell
dd	Delete a selected cell
z	Undo the last change
M	switch the cell type to Markdown
Y	switch the cell type to code