

Effective Programming Practices for Economists

Basic Python

Running Python code via pytask

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Preparation

We assume you have:

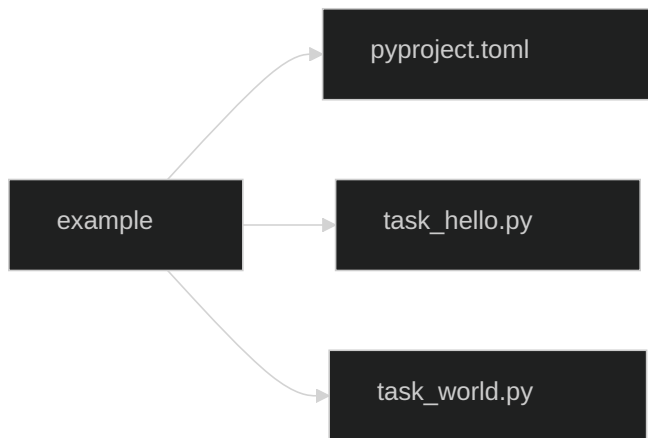
- Installed pixi
- Navigated to the root directory of your project in a shell
- The root directory of your contains a `pyproject.toml` file that includes pytask and at least one file expected by pytask

How does pytask execute code?

- Executing .py files: Run the entire file
- Executing notebooks: Run individual cells
- Pytask: Run individual functions in multiple .py files

Very useful for automating research pipelines

Example Project Structure



- Our shell is in the `example` directory
- We want to run all functions that start with `task_` in both `.py` files
- Command is `pixi run pytask`

1: Execute

```
hmg@hmg-home:/tmp/example  
→ example pixi run pytask  
----- Start pytask session -----  
Platform: linux -- Python 3.13.2, pytask 0.5.2, pluggy 1.5.0  
Root: /tmp/example  
Configuration: /tmp/example/pyproject.toml  
Collected 2 tasks.  


| Task                            | Outcome |
|---------------------------------|---------|
| task_hello.py::task_write_hello | .       |
| task_world.py::task_write_world | .       |


Summary  
2 Collected tasks  
2 Succeeded (100.0%)

  
----- Succeeded in 0.15 seconds -----  
→ example
```

1: Execute again

```
hmg@hmg-home:/tmp/example

→ example pixi run pytask

────────────────────────────────────────── Start pytask session ───────────────────────────────────────────
Platform: linux -- Python 3.13.2, pytask 0.5.2, pluggy 1.5.0
Root: /tmp/example
Configuration: /tmp/example/pyproject.toml
Collected 2 tasks.

────────────────────────────────────────── Summary ───────────────────────────────────────────
2 Collected tasks
2 Skipped because unchanged (100.0%)

────────────────────────────────────────── Succeeded in 0.01 seconds ───────────────────────────────────────────

→ example
```