

Lab 09

Python Packaging

Today's plan

01

Review of Packaging

(Python only)

02

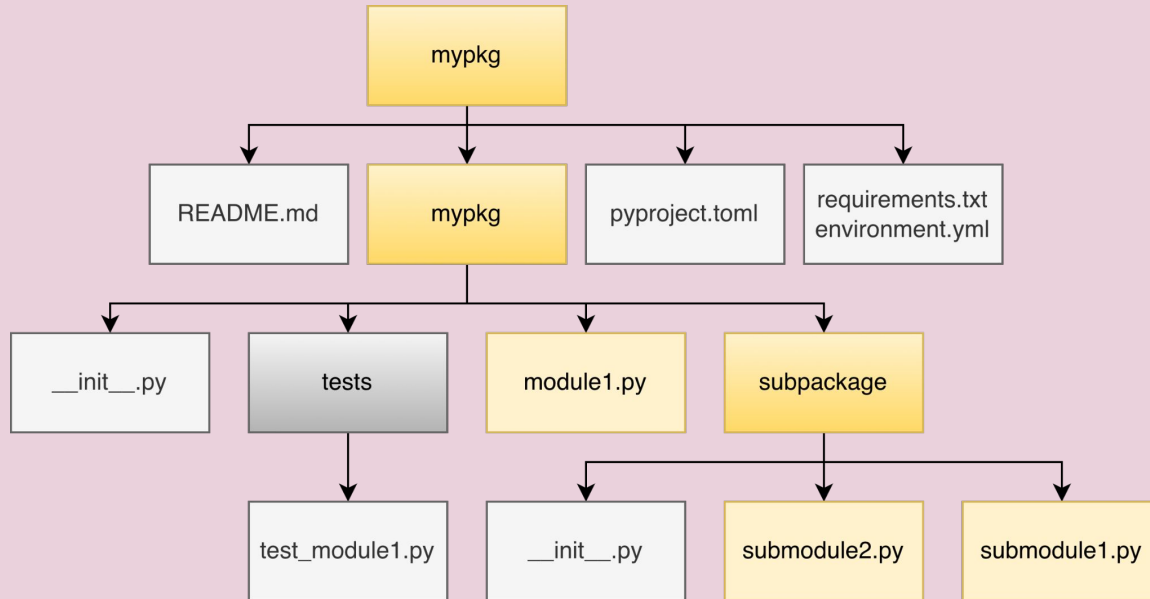
Reading Checkpoint

03

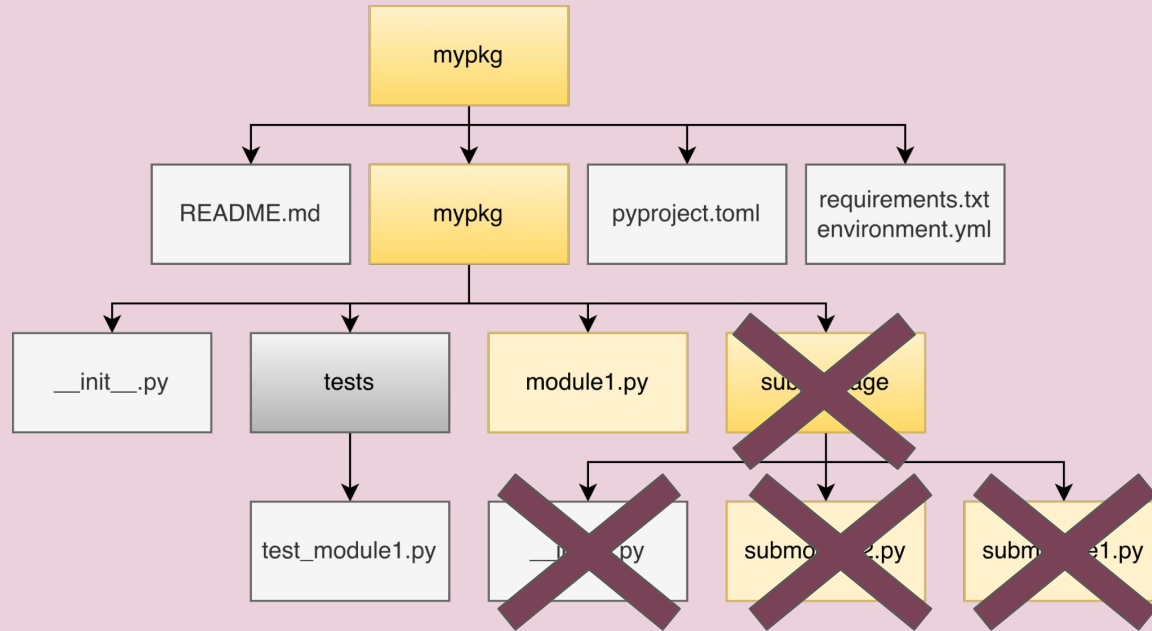
Lab notebook

Moving from notebooks to packages

Package Structure in Python



Package Structure in Python - For Today's lab



Core Components of a Python Package

Minimal components:

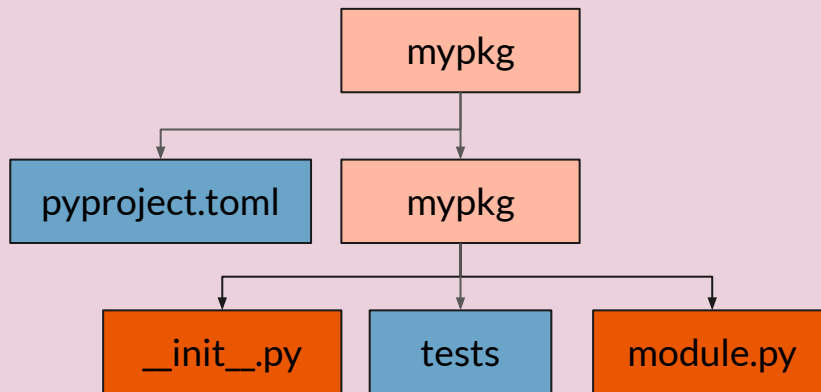
- Directory named after the package
- `__init__.py` within package directory
- Package code in a module

To make it installable with pip:

- `pyproject.toml`

To add tests:

- `'tests'` directory



Example Package

 **mytoy** PublicWatch

main 1 Branch 0 Tags T Add file <> Code

 **fperez** Update README

ae493bb · last year

🕒 19 Commits

📁 binder	Updates for pure pyproject.toml usage	last year
📁 mytoy	Add init file to tests package	3 years ago
📄 .gitignore	Initial commit - minimal python package	5 years ago
📄 LICENSE	Initial commit - minimal python package	5 years ago
📄 README.md	Update README	last year
📄 pyproject.toml	Updates for pure pyproject.toml usage	last year

Example Package

mytoy / mytoy / 

Add file ▾ 

 **fperez** Add init file to tests package d1dbd57 · 3 years ago  History

Name	Last commit message	Last commit date
 ..		
 tests	Add init file to tests package	3 years ago
 <code>__init__.py</code>	Initial commit - minimal python package	5 years ago
 <code>toys.py</code>	Initial commit - minimal python package	5 years ago

Example Package - pyproject.toml

```
Code Blame 36 lines (29 loc) · 739 Bytes

1  [build-system]
2  requires = ["setuptools >= 70"]
3  build-backend = "setuptools.build_meta"
4
5  [project]
6  name = "mytoy"
7  authors = [
8    { name="Example Author", email="author@example.com" },
9  ]
10 description = "A Python library to make toys"
11 readme = "README.md"
12
13 requires-python = ">=3.10"
14 dependencies = [
15     "tqdm",
16 ]
17
18 license = "BSD-3-Clause"
19 license-files = ["LICEN[CS]E*"]
20 classifiers = [
21     "Programming Language :: Python :: 3",
22     "Operating System :: OS Independent"
23 ]
24
25 keywords = ["tools", "toys"]
26 dynamic = ["version"]
27
28 [project.urls]
29 Homepage = "https://github.com/fperez/mytoy"
30 Issues = "https://github.com/fperez/mytoy/issues"
31
32 [tool.setuptools]
33 packages = ["mytoy"]
34
35 [tool.setuptools.dynamic]
36 version = {attr = "mytoy.__version__"}
```

(Reading) Checkpoint #8

You'll return it at the end of class

Work on lab09.ipynb