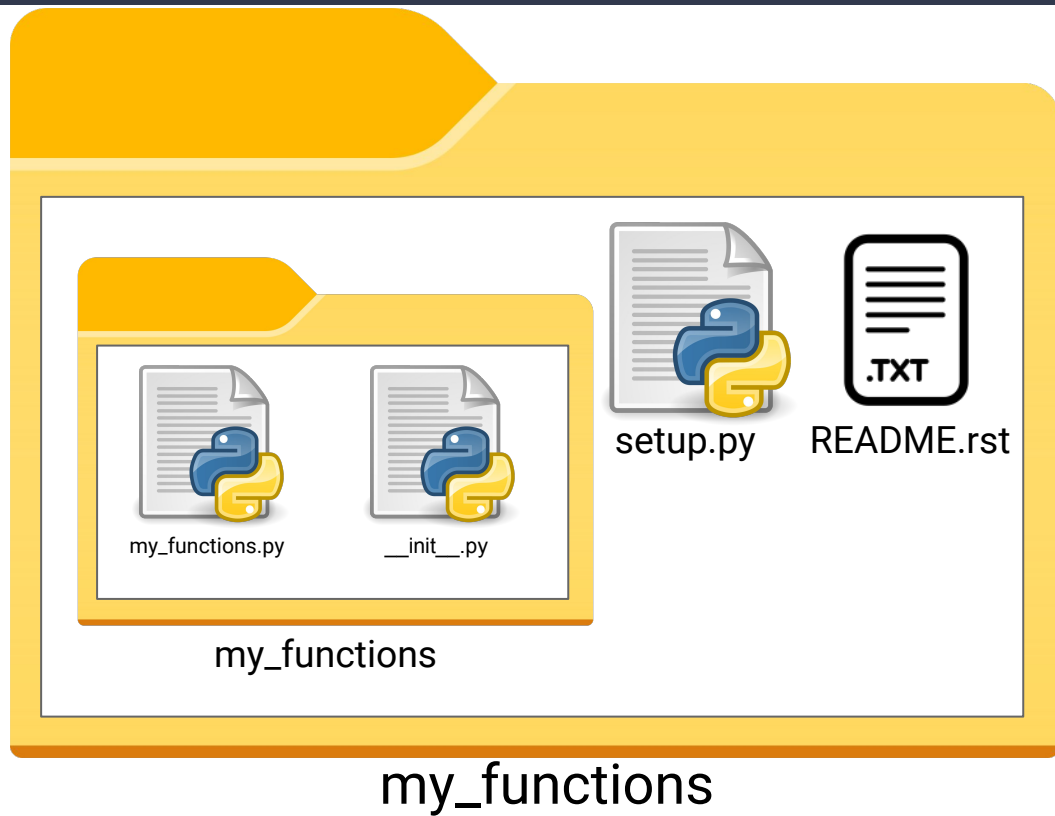


Python packages

A dark blue, diagonal shape that starts from the bottom left corner and extends towards the top right, covering the lower half of the slide.

Structure of python packages



Setup.py file

```
#!/usr/bin/env python
# -*- coding: utf-8 -*-

import os
import sys
from setuptools import setup

if sys.argv[-1] == "publish":
    os.system("python setup.py sdist upload")
    sys.exit()

setup(
    name="my_functions",
    version="1.0",
    author="Maude Charmetant",
    author_email="mcharmetant@astro.uni-bonn.de",
    packages=["my_functions"],
    url="https://github.com/AiFA-Radio/my_functions",
    license="MIT License",
    description="Python package containing my functions",
    long_description=open("README.rst").read(),
    package_data={"my_functions": ["LICENSE"]},
    include_package_data=True,
    install_requires=["numpy", "healpy"], #list all the package your functions need.
    classifiers=[
        "Development Status :: 5 - Production/Stable",
        "Intended Audience :: Developers",
        "Intended Audience :: Science/Research",
        "License :: OSI Approved :: MIT",
        "Operating System :: OS Independent",
        "Programming Language :: Python",
    ],
    zip_safe=False,
)
```

my_functions.py

```
#Insert below all the packages needed by your functions to work
import numpy as np
```

```
#Insert below all the functions you want in your package.
```

```
def example_1(number):
```

```
    '''
```

```
    Function that multiply by 3.
```

```
    Parameters
```

```
    -----
```

```
    number : float
```

```
        Number we want to multiply by 3.
```

```
    Returns
```

```
    -----
```

```
    R : float
```

```
        Number multiplied by 3.
```

```
    '''
```

```
    R = number * 3
```

```
    return R
```

```
def example_2(l):
```

```
    '''
```

```
    Function that multiply by 3
```

__init__.py

```
# -*- coding: utf-8 -*-
```

```
#
```

```
# This file is part of the my_functions package.
```

```
#
```

```
# my_functions is free software; you can redistribute it and/or modify  
# it under the terms of the MIT License.
```

```
#
```

```
# my_functions is distributed in the hope that it will be useful, but  
# WITHOUT ANY WARRANTY; without even the implied warranty of  
# MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See  
# the provided copy of the MIT License for more details.
```

```
"""my_functions package provide a function that multiply by 3 and a function that multiply a list by 3.  
"""
```

```
__version__ = "1.0"
```

```
__bibtex__ = """  
"""
```

```
from .my_functions import (example_1, example_2)
```

Install package

1. Go to the directory where you store all your codes, packages
2. In Terminal : `> python setup.py install`
3. your package is installed !
4. import it using : `import my_functions as f`
5. Reset your jupyter notebook kernel for it to work !