

Python Packaging

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Philosophy. Why?

Packaging is for extend you audience. Making easy the installation.

Downloading examples of packages

```
$ git clone https://github.com/davidam/damegender.git  
$ git clone https://github.com/davidam/damepandas.git  
$ git clone https://github.com/davidam/damenumpty.git  
$ git clone https://github.com/davidam/damefunniest.git  
$ git clone https://github.com/davidam/dametowel.git
```

setup.py is the file for packaging

```
from setuptools import setup

def readme():
    with open('README.org') as f:
        return f.read()

setup(name='damefunniest',
      version='0.4',
      description='The funniest joke in the world',
      long_description=readme(),
      classifiers=[
        'Development Status :: 3 - Alpha',
        'License :: OSI Approved :: GNU General Public License v3 (GPLv3)',
        'Programming Language :: Python :: 3.6',
        'Topic :: Text Processing :: Linguistic',
      ],
      keywords='funniest joke comedy flying circus',
```

Commands for create a package from setup.py

To install from local:

```
$ pip install -e .
```

To install create tar.gz in dist directory:

```
$ python3 setup.py register sdist
```

To upload to pypi:

```
$ twine upload dist/damefunniest-0.1.tar.gz
```

To install from Internet:

```
$ pip3 install damefunniest
```

Tree structure for a package

```
./tests
./tests/test_joke.py
./tests/test_command_line.py
./app
./bin
./bin/funniest-joke
./__init__.py
./command_line.py
```

Damegender is a real package (I): Methods

```
import os
import re
from setuptools import setup

cwd = os.getcwd()

def files_one_level(directory):
    f = os.popen('find '+ directory )
    l = []
    for line in f:
        fields = line.strip().split()
        l.append(fields[0])
    return l

def files_one_level_drop_pwd(directory):
```

Damegender is a real package (I): setup.py

```
setup(name='damegender',  
      version='0.0.37',  
      description='Gender Detection Tool by David Arroyo Menéndez',  
      long_description='Gender Detection Tool by David Arroyo Menéndez',  
      classifiers=[  
          "Programming Language :: Python :: 3",  
          "License :: OSI Approved :: GNU General Public License",  
          "Operating System :: OS Independent",  
      ],  
      keywords='gender repositories',  
      url='http://github.com/davidam/damegender',  
      author='David Arroyo Menéndez',  
      author_email='davidam@gnu.org',  
      license='GPLv3',  
      packages=['damegender', 'damegender.app', 'damegender.files'],  
      package_dir={'damegender': 'src/damegender', 'damegender.files': 'src/damegender/files'},  
      data_files=[('damegender', ['src/damegender/files/feature'])])
```


Explaining attributes

- version
- classifiers
- license
- packages
- package_{dir}
- data_{files}
- scripts and entry_{points}
- install_{requires}

References

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