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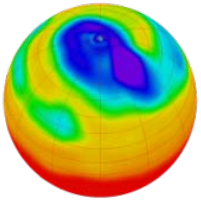

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Combining scripts and modules in python

Thanks to all contributors:

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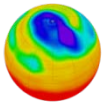

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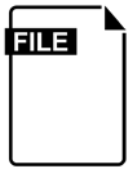
A simple python module/script

In Python you will often want to write a module where most of your code is held and then use a separate script to interact with it.

In this contrived example we have:



`greetings.py`
`(module)`

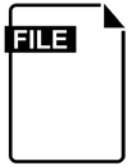
`greeter.py`
`(script)`

How will it work?

When written, the script will be called like this:

```
$ python greeter.py
Nobody to greet!

$ python greeter.py Greta
Hello Greta

$ python greeter.py Harpo Chico Zeppo
Hello Harpo
Hello Chico
Hello Zeppo
```

The “greetings.py” module

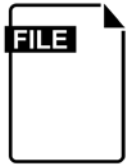


greetings.py
(module)

Holds the function that actual does something:

```
def greet(someone):
    print “Hello %s” % someone
```

The “greeter.py” script



greeter.py
(script)

• defines the interaction between the “greetings.py” module and user input (from the command-line).

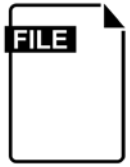
```
import greetings
import sys

if len(sys.argv) == 1:
    print “Nobody to greet!”
else:
    for person in sys.argv[1:]:
        greetings.greet(person)
```

A python “package”

In Python you will often want to group a set of modules into a **package.**

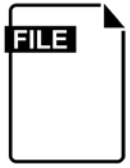
On the file system a library might look like this:

`mylib/`



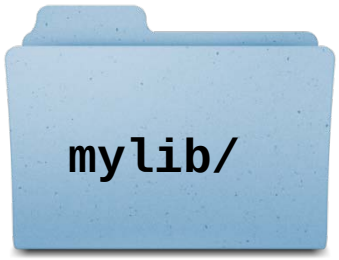
`__init__.py`

`module1.py`



`module2.py`

What does __init__.py do?



__init__.py

The "__init__.py" module is run when you import the name of the directory. It tells python that this directory is a Python *package*.

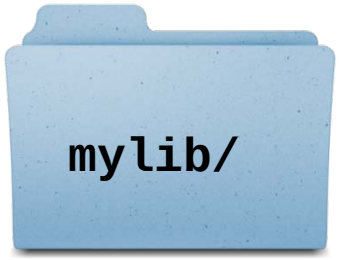
In this case it is called "mylib" so you would type:

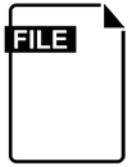
```
>>> import mylib   # runs content of mylib/__init__.py
```

If "__init__.py" contained the line "print 10" you would see:

```
>>> import mylib
10
```

Importing a package module





__init__.py

module1.py

The existence of the "__init__.py" module allows you to import modules within the package with:

```
>>> import mylib.module1
>>> mylib.module1.runSomething(1, 2, 3)
```