

MAKING YOUR OWN MODULES

Creating your own modules is easy, you've been doing it all along! This is because every Python program is also a module. You just have to make sure it has a `.py` extension. The following example should make it clear.

Example (save as `mymodule.py`):

```
def say_hi():  
    print 'Hi, this is mymodule speaking.'  
  
__version__ = '0.1'
```

The above was a sample **module**. As you can see, there is nothing particularly special about it compared to our usual Python program. We will next see how to use this module in our other Python programs.

Remember that the module should be placed either in the same directory as the program from which we import it, or in one of the directories listed in `sys.path`.

Another module (save as `mymodule_demo.py`):

```
import mymodule  
  
mymodule.say_hi()  
  
print 'Version', mymodule.__version__
```

Output:

```
$ python mymodule_demo.py  
  
Hi, this is mymodule speaking.  
  
Version 0.1
```

How It Works

Notice that we use the same dotted notation to access members of the module.

Python makes good reuse of the same notation to give the distinctive 'Pythonic' feel to it so that we don't have to keep learning new ways to do things.

Here is a version utilising the `from..import` syntax (save as `mymodule_demo2.py`):

```
from mymodule import say_hi, __version__  
  
say_hi()  
  
print 'Version', __version__
```

The output of `mymodule_demo2.py` is same as the output of `mymodule_demo.py`.

Notice that if there was already a `version` name declared in the module that imports `mymodule`, there would be a clash. This is also likely because it is common practice for each module to declare its version number using this name. Hence, it is always recommended to prefer the `import` statement even though it might make your program a little longer.

You could also use:

```
from mymodule import *
```

This will import all public names such as `say_hi` but would not import `version` because it starts with double underscores.

WARNING

Remember that you should avoid using import-star, i.e. `from mymodule import *`.

Source: <http://www.swaroopch.com/notes/python/>