

Python modules are just regular Python files that happen to have several related functions or classes located within them. You use modules when your code becomes large enough that a single application file is no longer practical or desirable for holding your application code. In these situations, you will want to separate your code into modules.

There are two general categories of files to discuss when describing Python modules.

- **Module files:** You will group functions or classes according to your own organizational needs and preferences. The module files that you create will be regular Python code, with several functions or classes that are defined within. Other parts of your application (the callers) will call your functions or reference your classes, just as they would if they had been defined within the same application file.
- **Calling files:** Your application code will call the functions or classes in your modules just as they would have if they had been defined inside the main application file itself. The one difference is that the calling code will need to import your module and functions or classes using the Python import statement. This statement tells Python where to look for function and class definitions that are not located within the file of the calling code.

The following snippets of code show the definition of the module file, and the referencing of functions or classes in that file by the calling code. The module file ('util.py' in this case) has a utility function to read device information from a file, returning a list of devices. It also has a function to print device info.

File util.py:

```
#=====
def read_devices_info(devices_file):
    ...
    return devices_list

#=====
def print_device_info(device):
    print ...
    print device.interfaces
```

The main application file will call these functions, just as if they were located within the same Python application file, with the exception that you need an import statement to let Python know where to find these functions and classes that are being referenced:

File main.py:

```
import util
...
devices_list = read_devices_info('devices')
...
for device in devices_list:
    ....
    print_device_info(device)
```