Lesson 8c worksheets – Python module and package

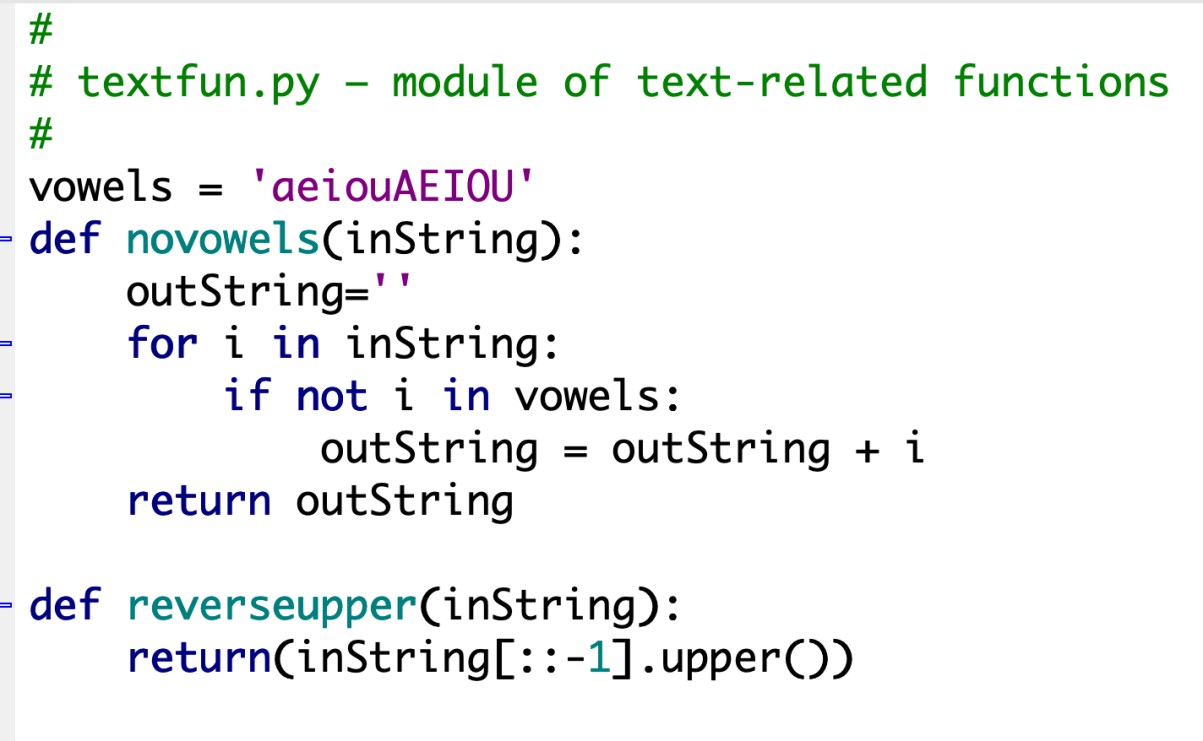
1. Python Module

We've imported modules and packages to gain access to functions written by others. We've created functions inside our programs to reuse throughout the programs

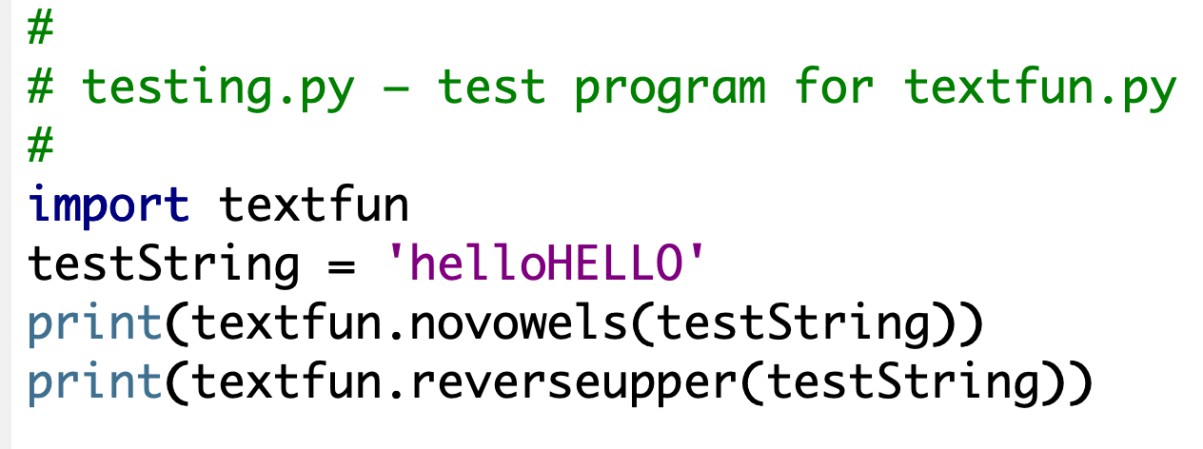
If we want to reuse the functions in many programs…

* + Create our own module
  + Import the module into our programs

1. Create textfun.py



1. Import textfun module and test it.

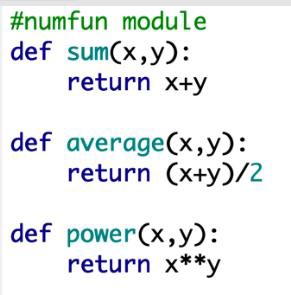


1. Python Package

If we had a group of related modules, we could group them in a package. The module files are placed in a directory together.

A special file, init .py indicates the directory is a package.

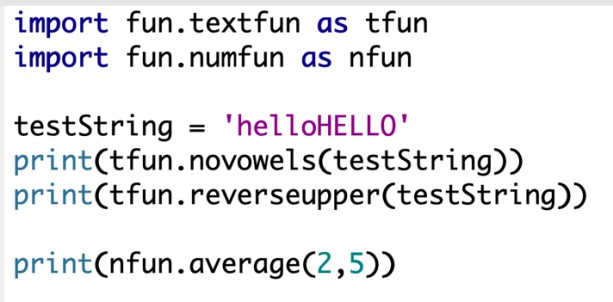
So, if we had modules textfun.py and numfun.py. we might group them in a package fun Then we could import them using:

* + import fun.textfun as tfun
  + import fun.numfun as nfun Create numfun.py module

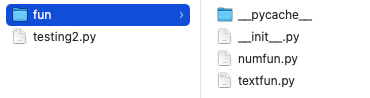
Create a folder, “fun”, place the two module (textfun.py and numfun.py) into that folder. Create a file init .py in that folder.



Import textfun and numfun module from fun package and text it.



Note: make sure the testing file (e.g. testing2.py) is in the same folder as fun package.



Note: pycache folder will automatically be created when we import and execute the module scripts.

1. main

Python scripts and python modules are just scripts.

Python provides a way to tell if you are running code directly (python3) or just using the functions (import)

If the code is called directly, the variable name will equal " main " Otherwise name will refer to the calling code.

We can include an if statement to check for this and run specific code.

Add some test script in textfun.py for testing.

Note: Note main() will only be called if we execute textfun.py. Importing textfun.py will not execute main().

