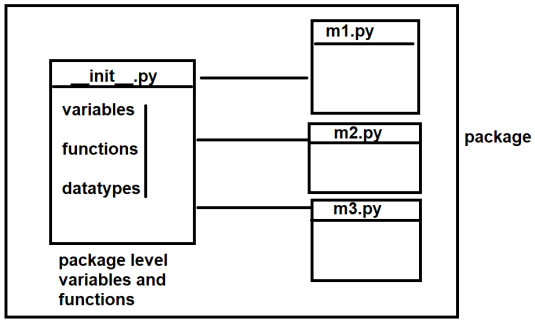
What is __init__.py?

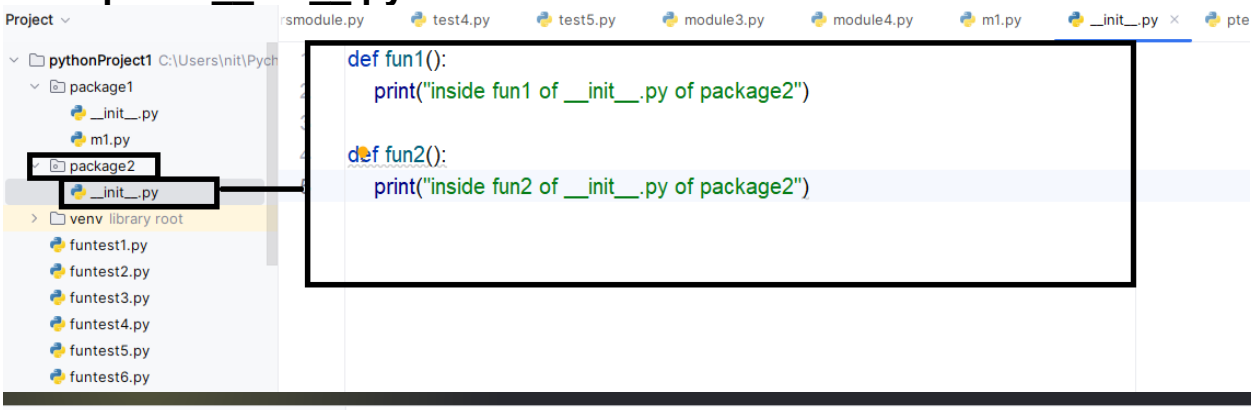
__init__.py is a special module or program.
It is called package configuration module or program.
This module is executed automatically when ever package is imported.

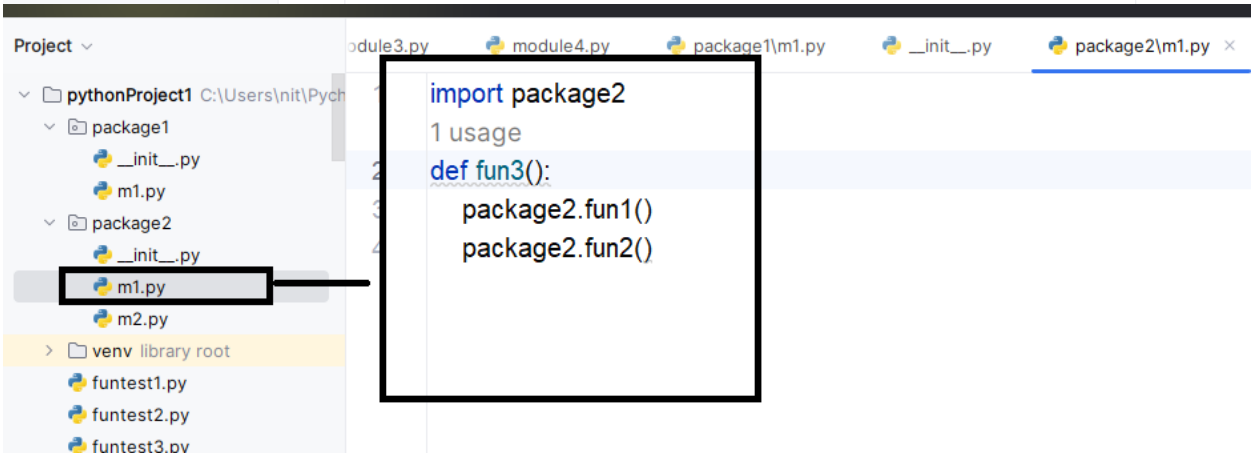
What is use of __init__.py?

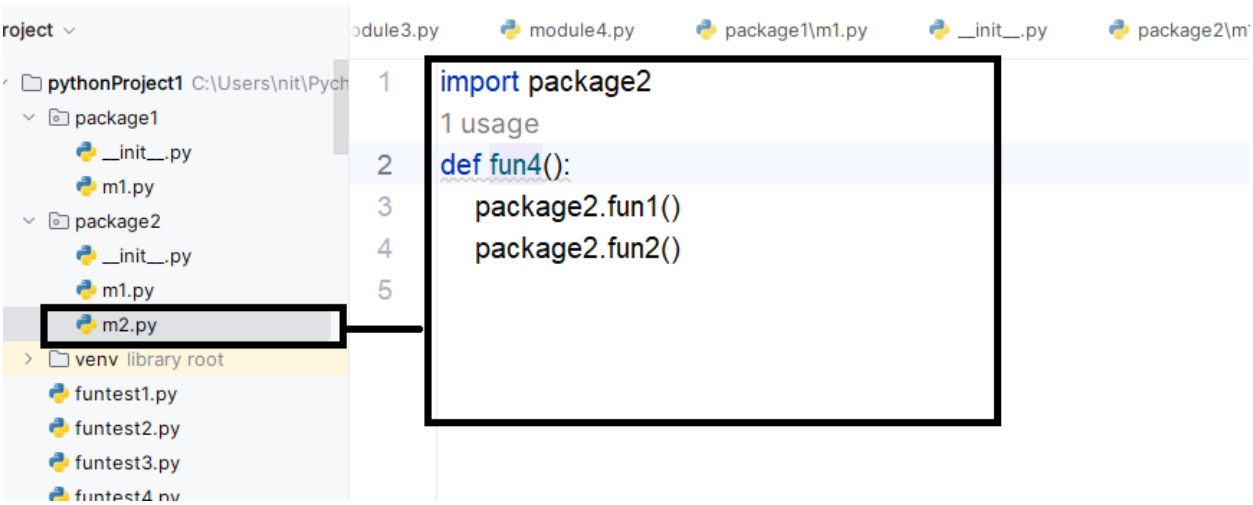
1. Creating package level variables
2. Creating package level functions
3. Configuring modules

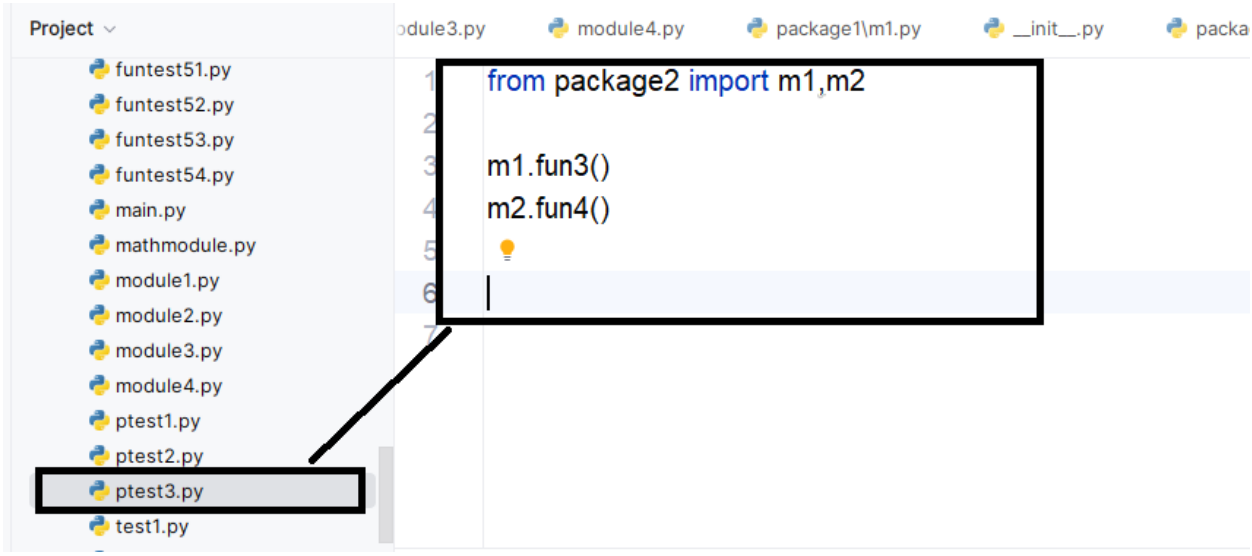


Example of __init__.py

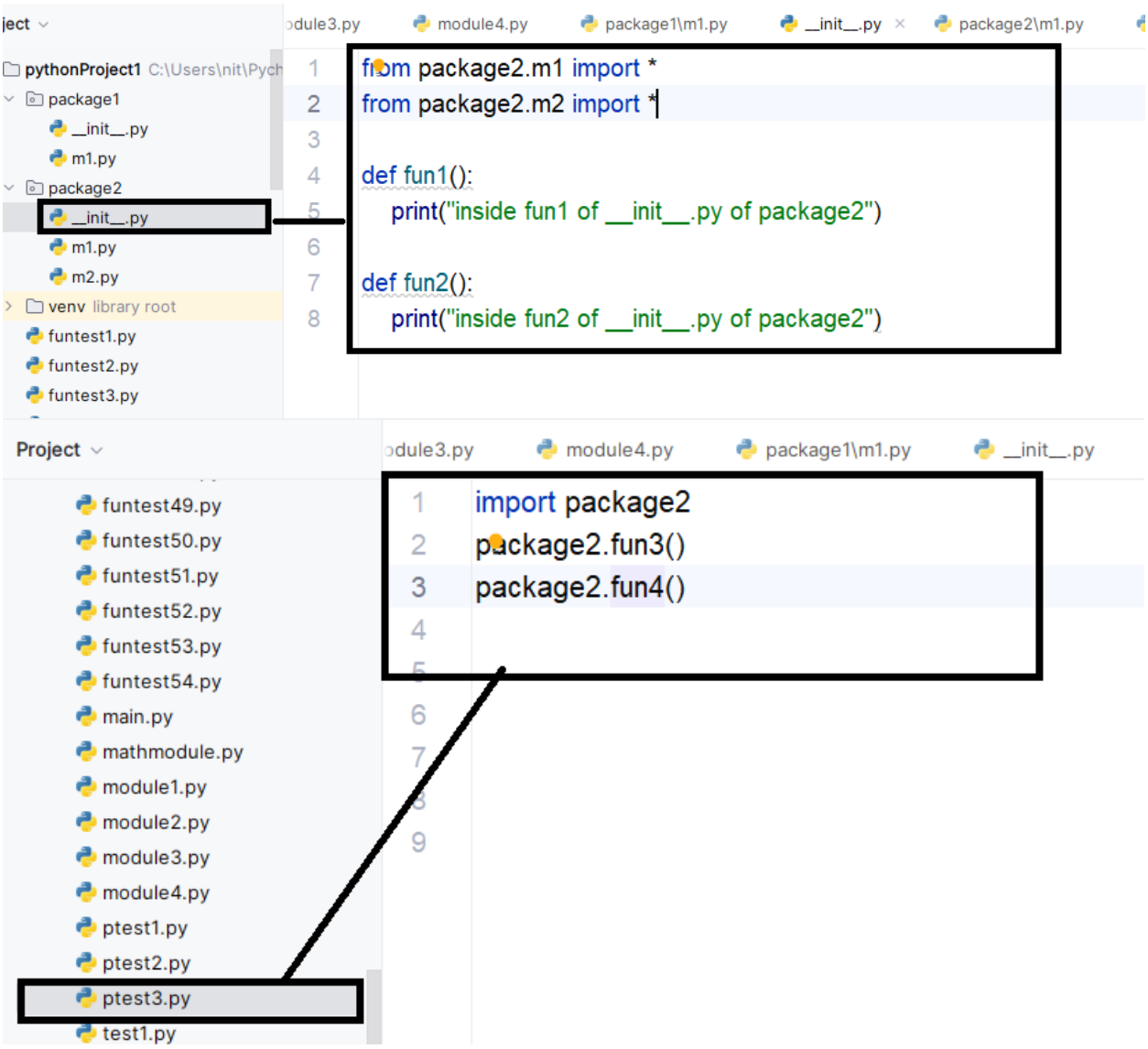








__init__.py is used to configure modules of package.



Output:
inside fun1 of __init__.py of package2
inside fun2 of __init__.py of package2
inside fun1 of __init__.py of package2
inside fun2 of __init__.py of package2

How to access modules stored in other locations?

How to set module path?

sys.path

sys.path is a built-in variable within the sys module. It contains a list of directories that the interpreter will search in for the required module. When a module(a module is a python file) is imported within a Python file, the interpreter first searches for the specified module among its built-in modules. If not found it looks through the list of directories(a directory is a folder that contains related modules) defined by sys.path.

```
import sys
print(sys.path)

sys.path.append("e:\\")
print(sys.path)
import test10
```

Output

```
['C:\\Users\\nit\\PycharmProjects\\pythonProject1',
'C:\\Users\\nit\\PycharmProjects\\pythonProject1',
'C:\\Users\\nit\\AppData\\Local\\Programs\\Python\\Python311\\python311.z
ip', 'C:\\Users\\nit\\AppData\\Local\\Programs\\Python\\Python311\\DLLs',
'C:\\Users\\nit\\AppData\\Local\\Programs\\Python\\Python311\\Lib',
'C:\\Users\\nit\\AppData\\Local\\Programs\\Python\\Python311',
'C:\\Users\\nit\\PycharmProjects\\pythonProject1\\venv',
'C:\\Users\\nit\\PycharmProjects\\pythonProject1\\venv\\Lib\\site-packages']
```

Object Oriented Programming (OOP)

The objective of learning object oriented programming is building user defined data types or classes.

Int → class → data types
Float → class
Complex → class
Bool → class
List → class