How to use executable module as a reusable module?

What is __name__?
__name__ is a predefined variable in python. This variable is assigned value by PVM (Python Virtual Machine). This variable exists within __builtins__ module.
If program is executed as an executable module, PVM assign the value __main__ to __name__ variable.
If program is imported inside another program, PVM assign the value as module name to __name__ variable.

Module3.py	**Module4.py**

def fun1():
  print("fun1 of module3")
 	
def fun2():
  print("fun2 of module3")
 	
def fun3():
  print("fun3 of module3")
 	
if __name__=='__main__':
  fun1()
  fun2()
  fun3()
	import module3
	
	module3.fun1()

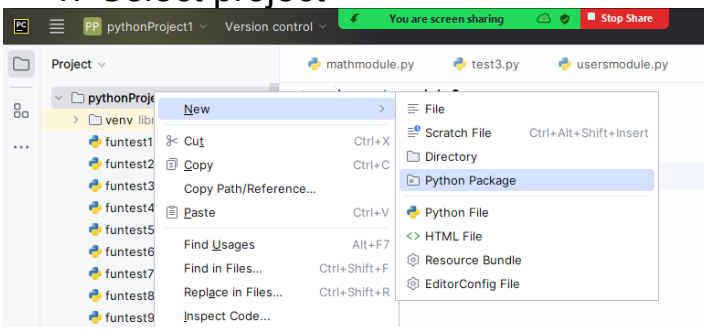
Package

What is package?
Package is a collection of modules.
Package allows to group set of related programs or modules.
Package is a folder or directory which contains .py files.

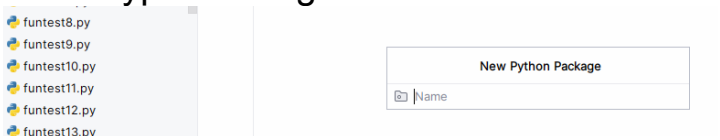
Creating package
1. Create folder/directory
2. Create .py files or python programs or modules

How to create package in pycharm?

1. Select project



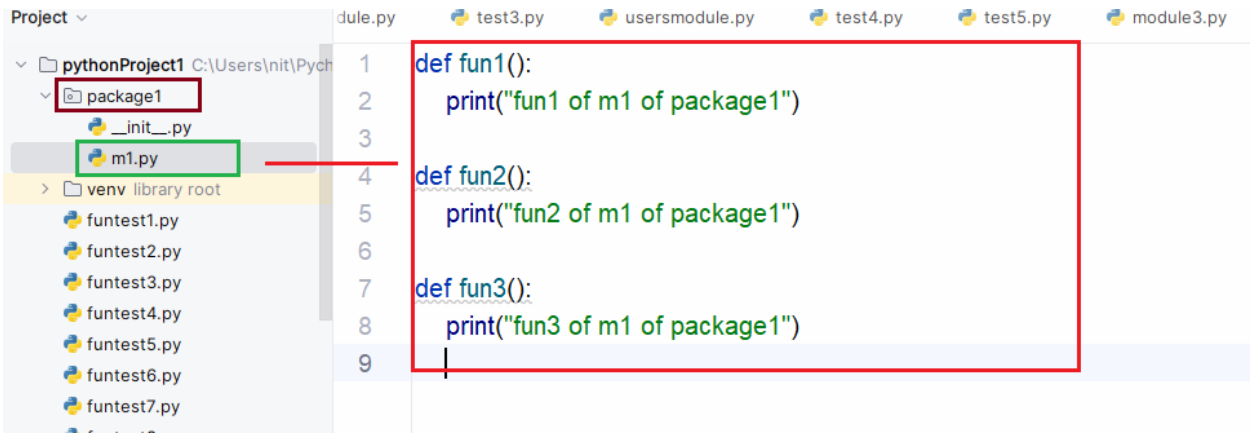
2. Type Package Name



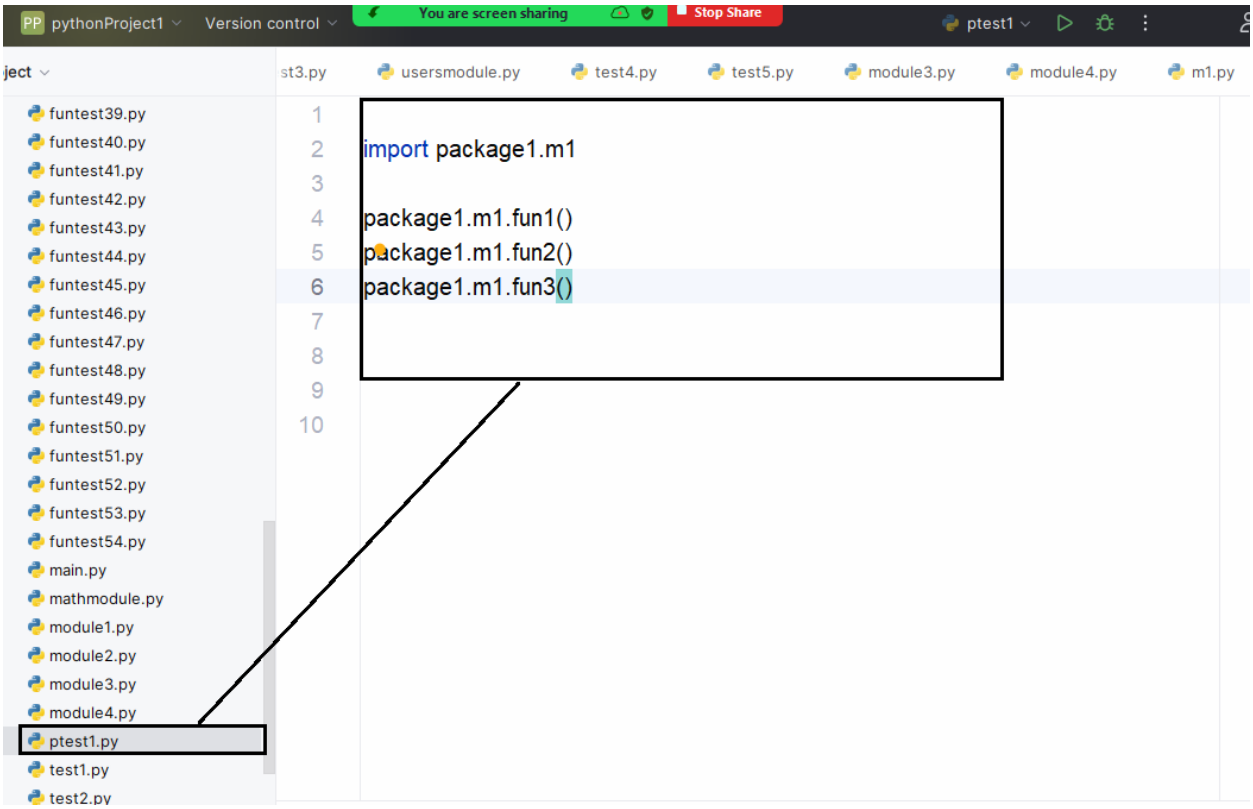
Package is created with one special module or python program called __init__.py

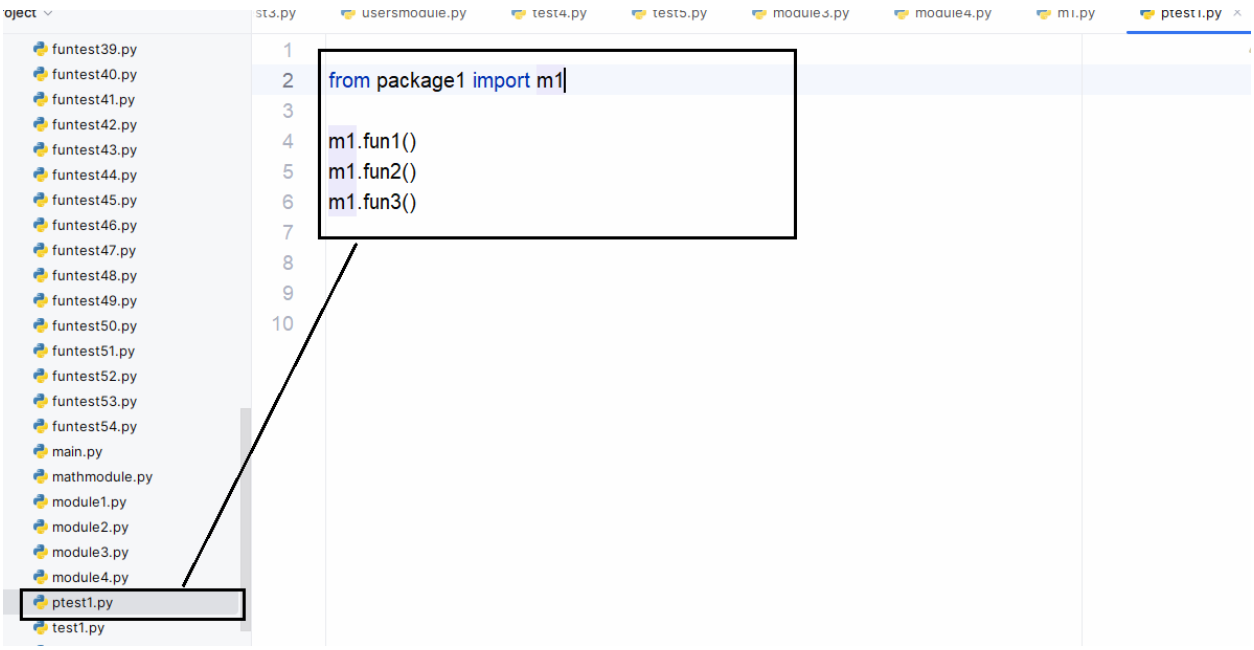
Any name with prefix and suffix with __ is called magic names. These are created and executed automatically.

Create the package with one module



Using module outside package


pythonProject1
Version control
You are screen sharing
Stop Share
ptest1
st3.py
usersmodule.py
test4.py
test5.py
module3.py
module4.py
m1.py
funtest39.py
funtest40.py
funtest41.py
funtest42.py
funtest43.py
funtest44.py
funtest45.py
funtest46.py
funtest47.py
funtest48.py
funtest49.py
funtest50.py
funtest51.py
funtest52.py
funtest53.py
funtest54.py
main.py
mathmodule.py
module1.py
module2.py
module3.py
module4.py
ptest1.py
test1.py
test2.py
import package1.m1
package1.m1.fun1()
package1.m1.fun2()
package1.m1.fun3()


usersmodule.py
test4.py
test5.py
module3.py
module4.py
m1.py
ptest1.py
funtest39.py
funtest40.py
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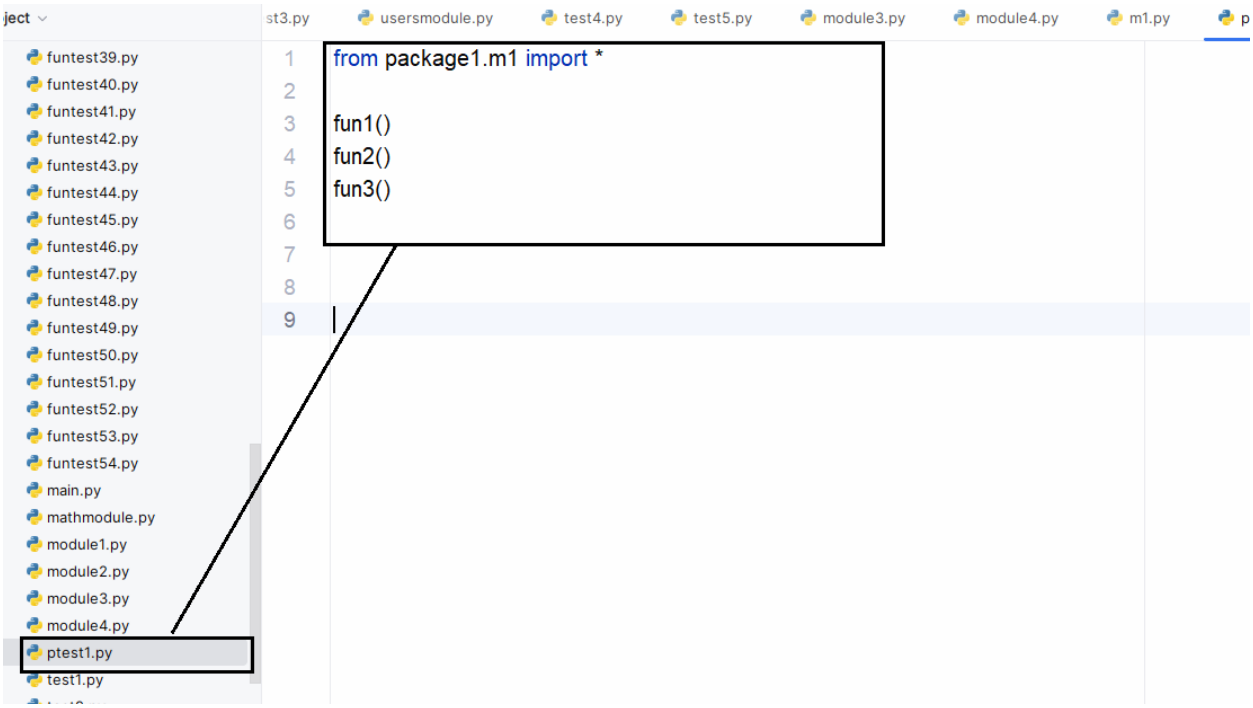
funtest53.py
funtest54.py
main.py
mathmodule.py
module1.py
module2.py
module3.py
module4.py
ptest1.py
test1.py
from package1 import m1
m1.fun1()
m1.fun2()
m1.fun3()



What is __init__.py?