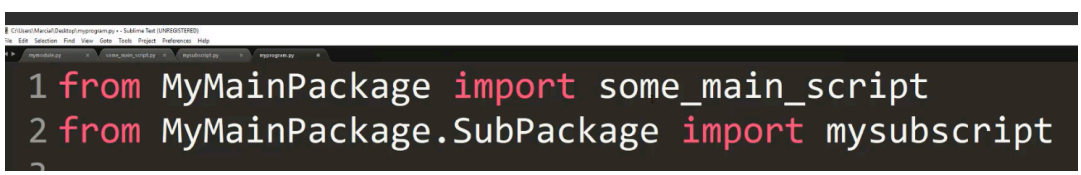
SECTION 9: MODULES & PACKAGES - 29 minutes, 3 parts

- **Modules & packages**
  - -> This is to create our own packages and modules in Python
  - -> We can install external packages and modules
  - **-> Modules are .py scripts**
  - **-> We can use one .py script in another**
  - **-> Packages are collections of modules**
  - -> __init__ <- There is a method here which tells the interpreter to interpret a series of packages all as part of one module

- **In an IDE**
  - -> It needs to work with .py files
  - **-> He's created a .py file and imported in another .py file**
  - **-> The .py file being imported in is a module**
  - **-> It's an entire .py file**
  - -> He's defined a function in the .py file
  - -> We can define multiple different modules
  - -> I.e several different .py files, and then aggregate them together into a package
  - -> python module_name.py <- To run the module in the terminal
  - -> This is how you can format multiple different .py scripts

- **To create a package from multiple different modules**
  - -> He's creating a new folder which is for one package
  - -> Then multiple different sub-folders
  - -> Letting Python treat those directories as packages
  - **-> He's created a file called __init__.py in each of those folders in the package**
  - -> He's then created a file and saved it under a sub-package
  - -> Then inside the subscript (.py file), he's writing a function which prints a message
  - -> Saving it
  - -> Repeating the process for another .py file in the package
  - -> Packages are directories which have __init__.py in them

  - **-> You can import a module from a package**



    - -> Packages, scripts and sub-packages
    - -> Then to call the functions which are being imported, you type their names
    - -> Organising .py scripts
    - -> We create modules in the same folder
    - -> Then create directories which have __init__.py <- for packages