Creating virtual environment in Visual Studio Code for Python on macOS

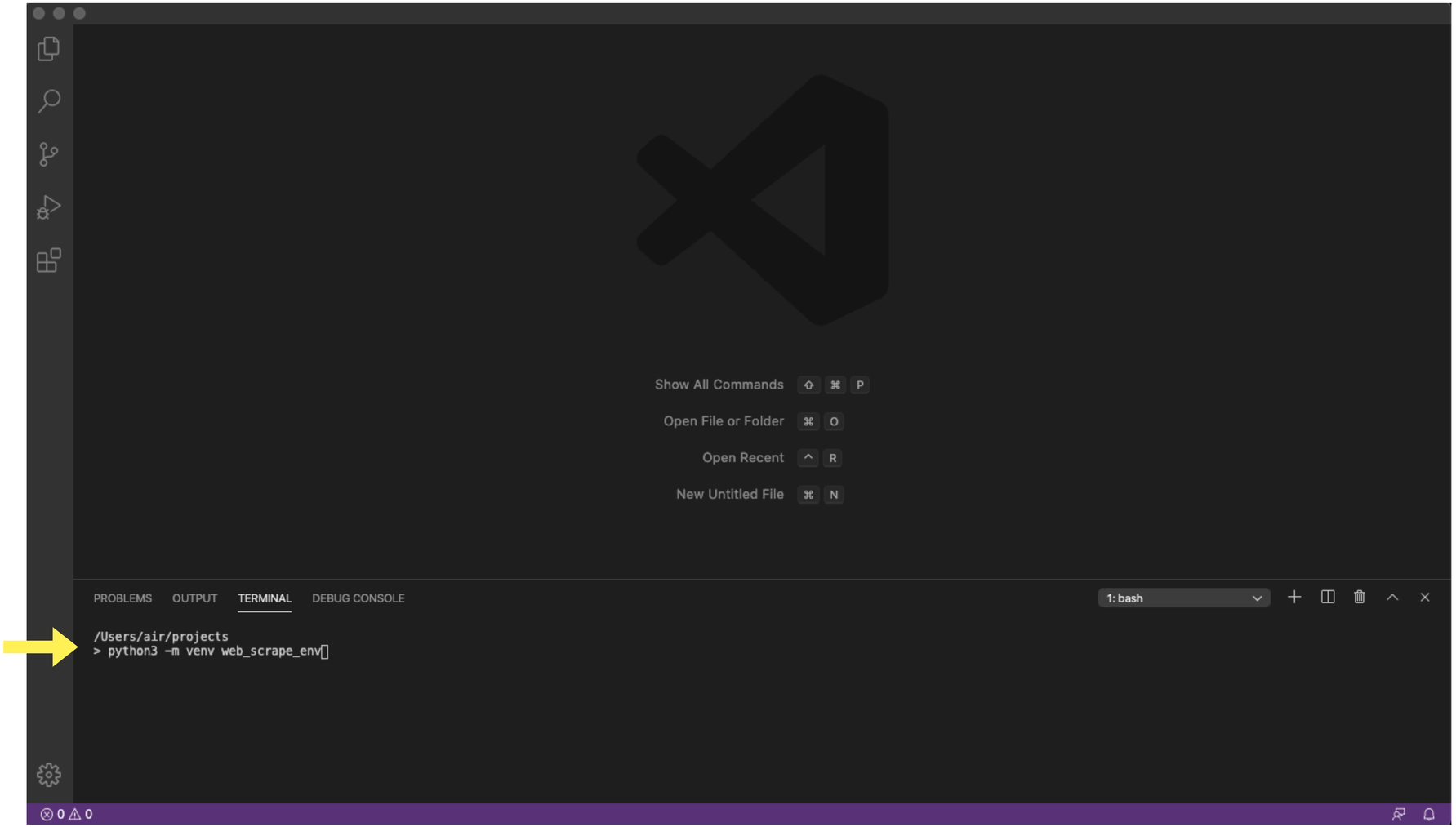
Giovanni Dalla Vecchia - 20/06/2020
VSCode_Python_Venv - v1

Will assume you have the following knowledge and your machine the following softwares:

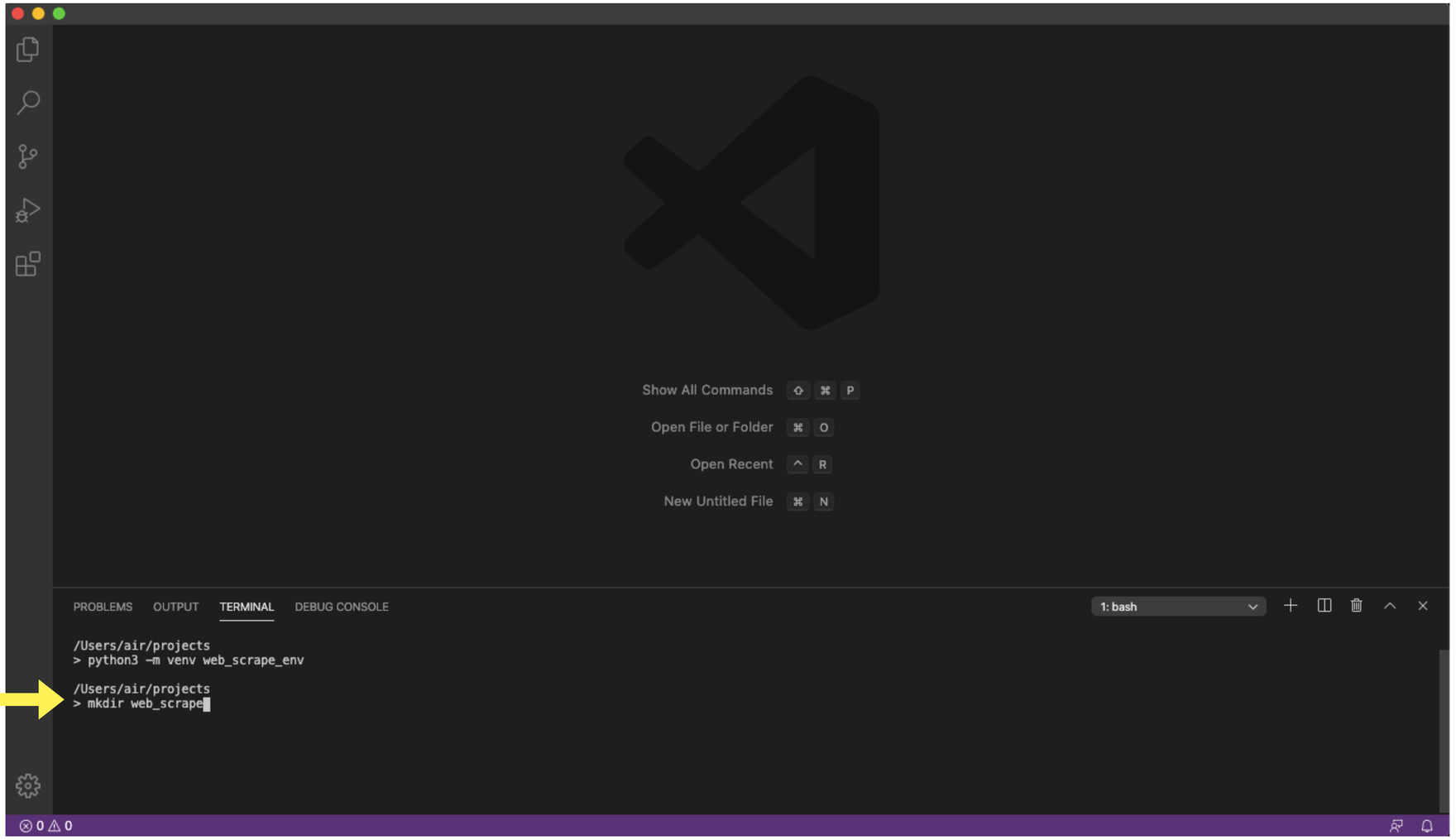
- Visual Studio Code (VSCode) with <*python*> and <*doraemon-runner*> extensions
- Python3
- Confident to use VS Code regarding folder (create/open), terminal (open/close), files (create/open/edit), install dependencies (when required), configuration (command palette)
- Know how to create folders and navigate them via terminal
- Know how to run a Python application <*python3 “file_name.py*>

Create a virtual environment to develop a Python application using VSCode

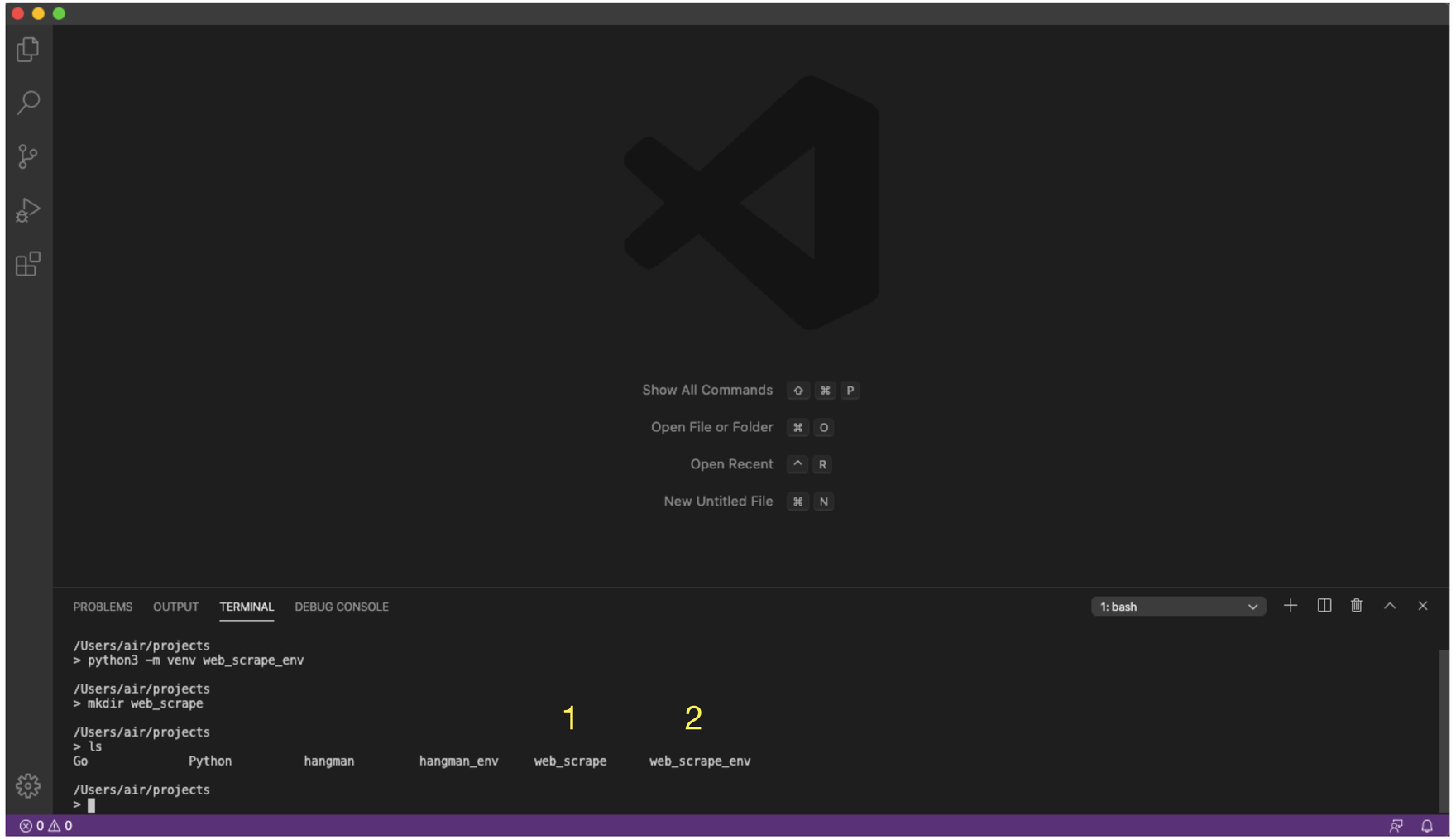
- Environment name: ‘*web_scrape_env*’
- Project folder: ‘*web_scrape*’
- Project file for test the environment: ‘*app.py*’
- Packages to install: ‘*BeautifulSoup4*’ and ‘*Requests*’



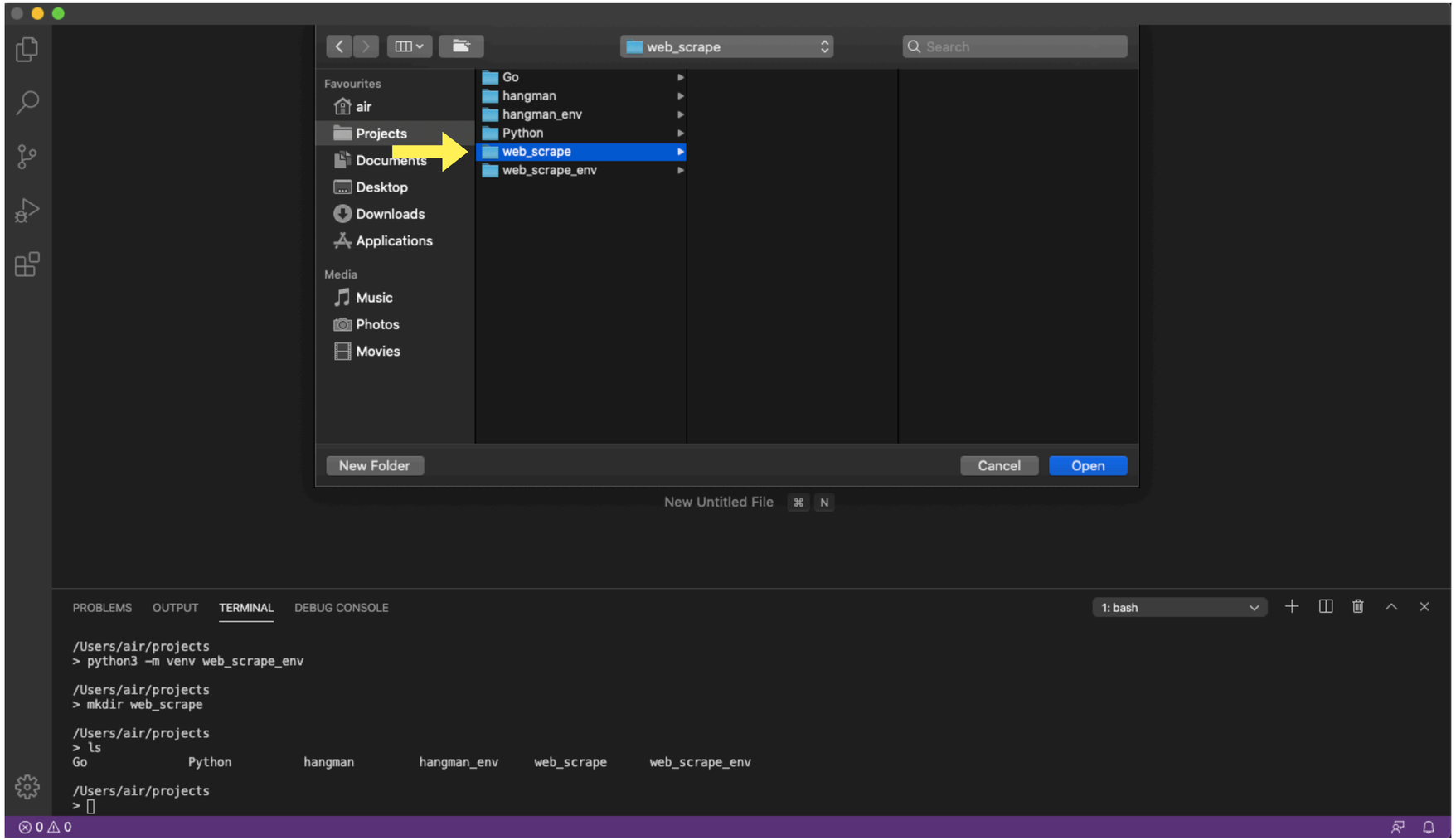
▶ in VSCode terminal (^`) create the virtual environment <python3 -m venv web_scrape_env>



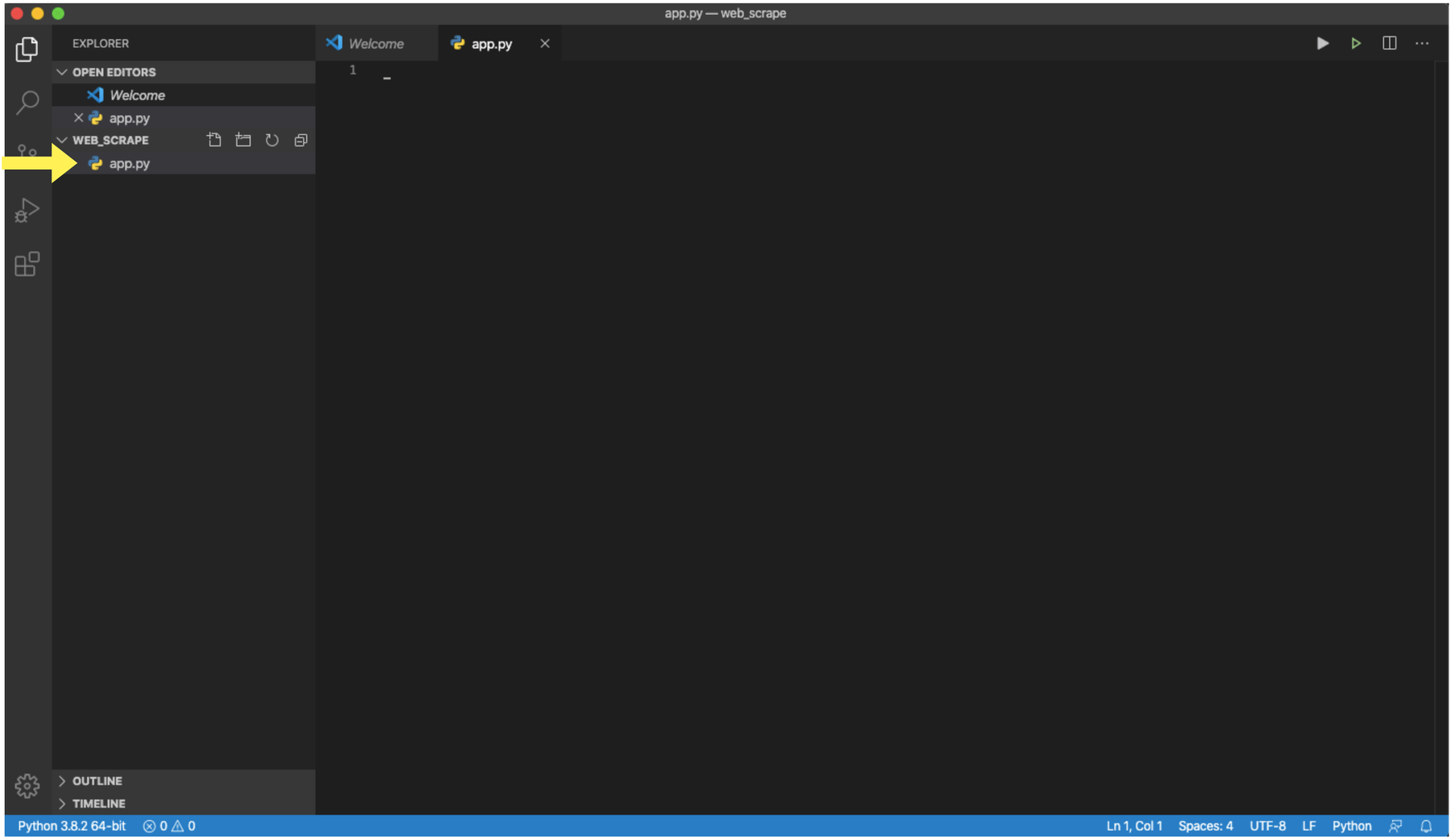
▶ create the folder ‘web_scrape <mkdir web_scrape>



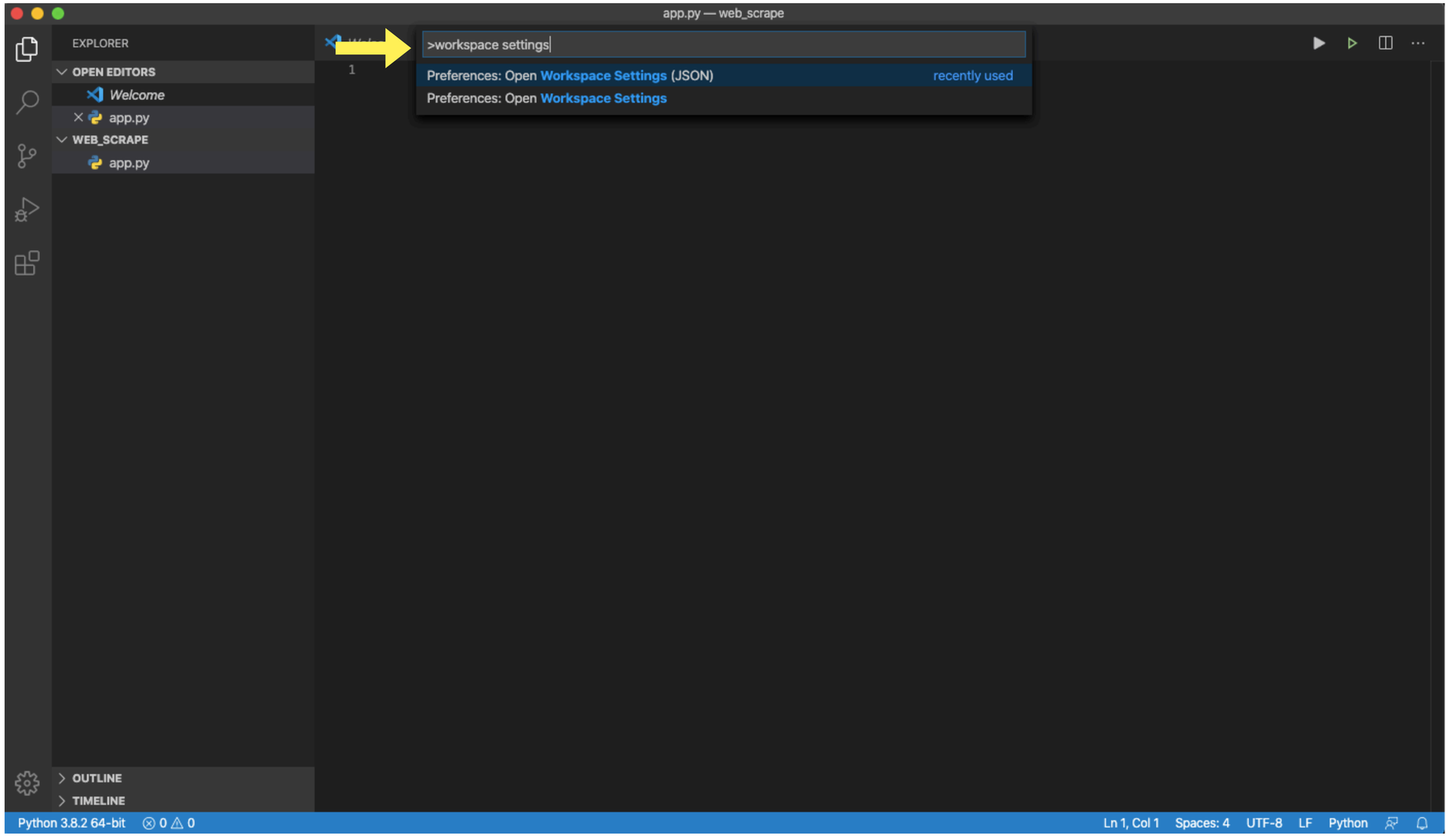
▶ both folders have been created (1)'web_scrape' and (2)'web_scrape_env'



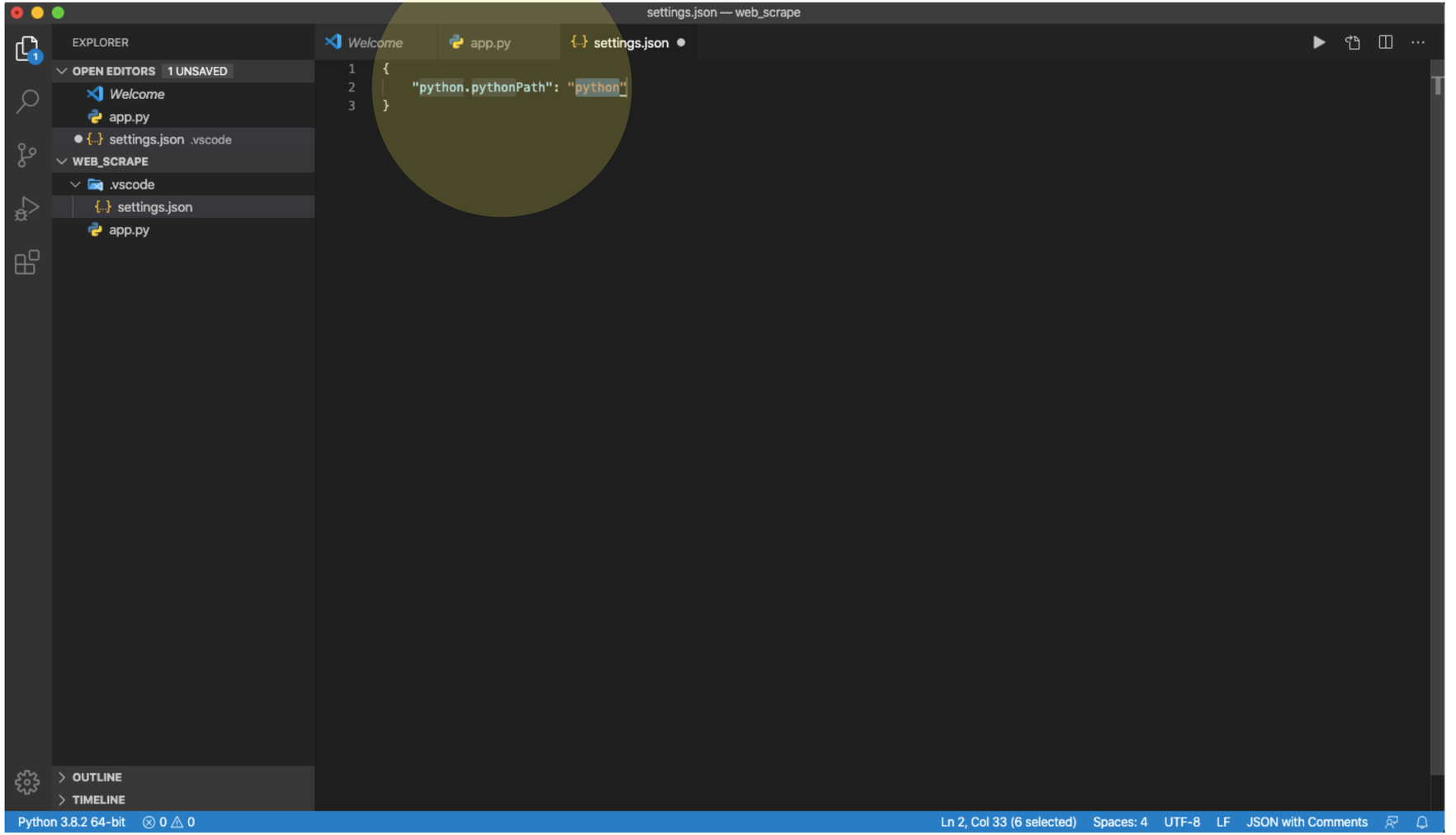
▶ open (⌘O) the folder project ‘web_scrape’



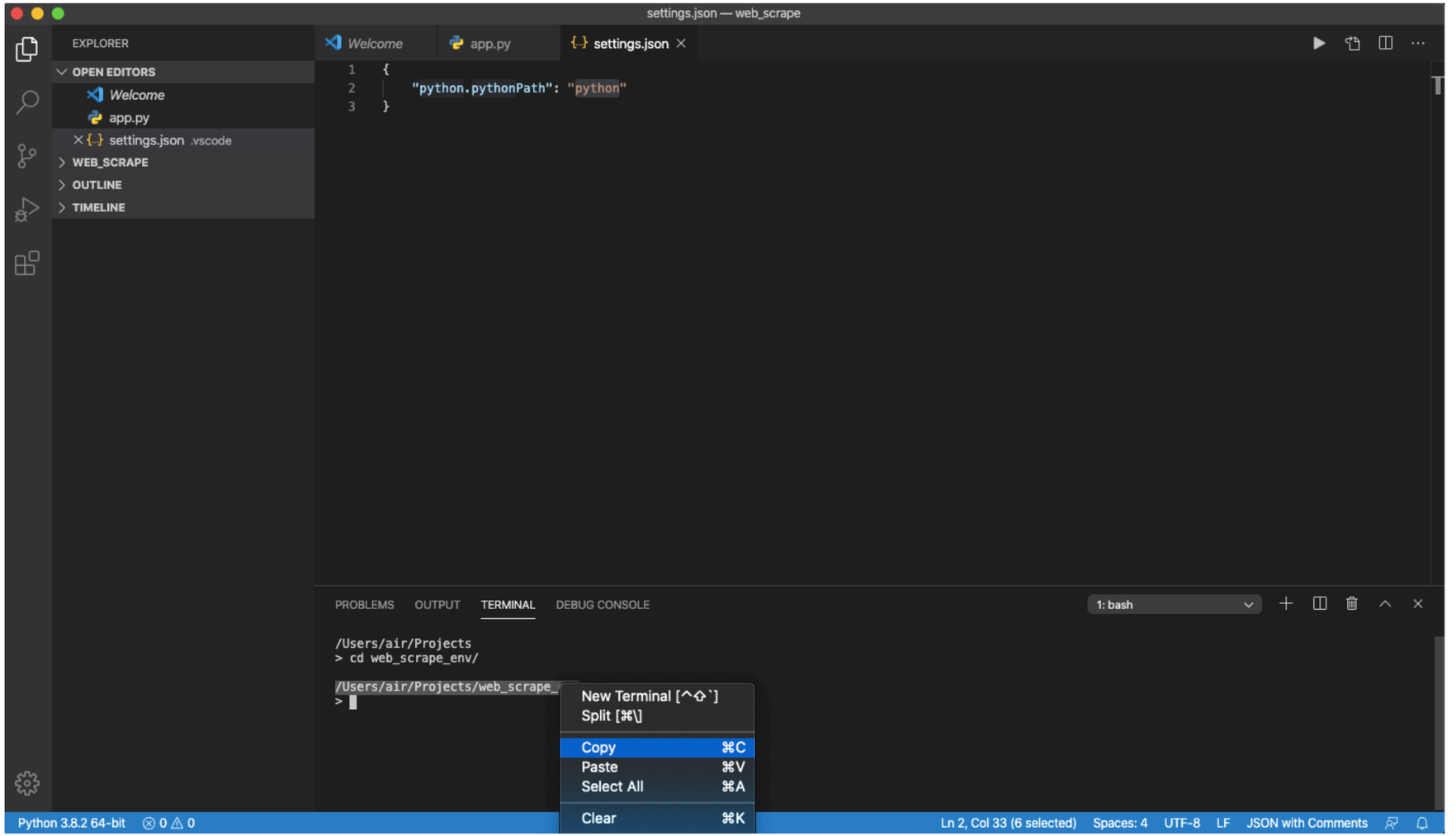
▶ create (⌘N) a new file ‘app.py’



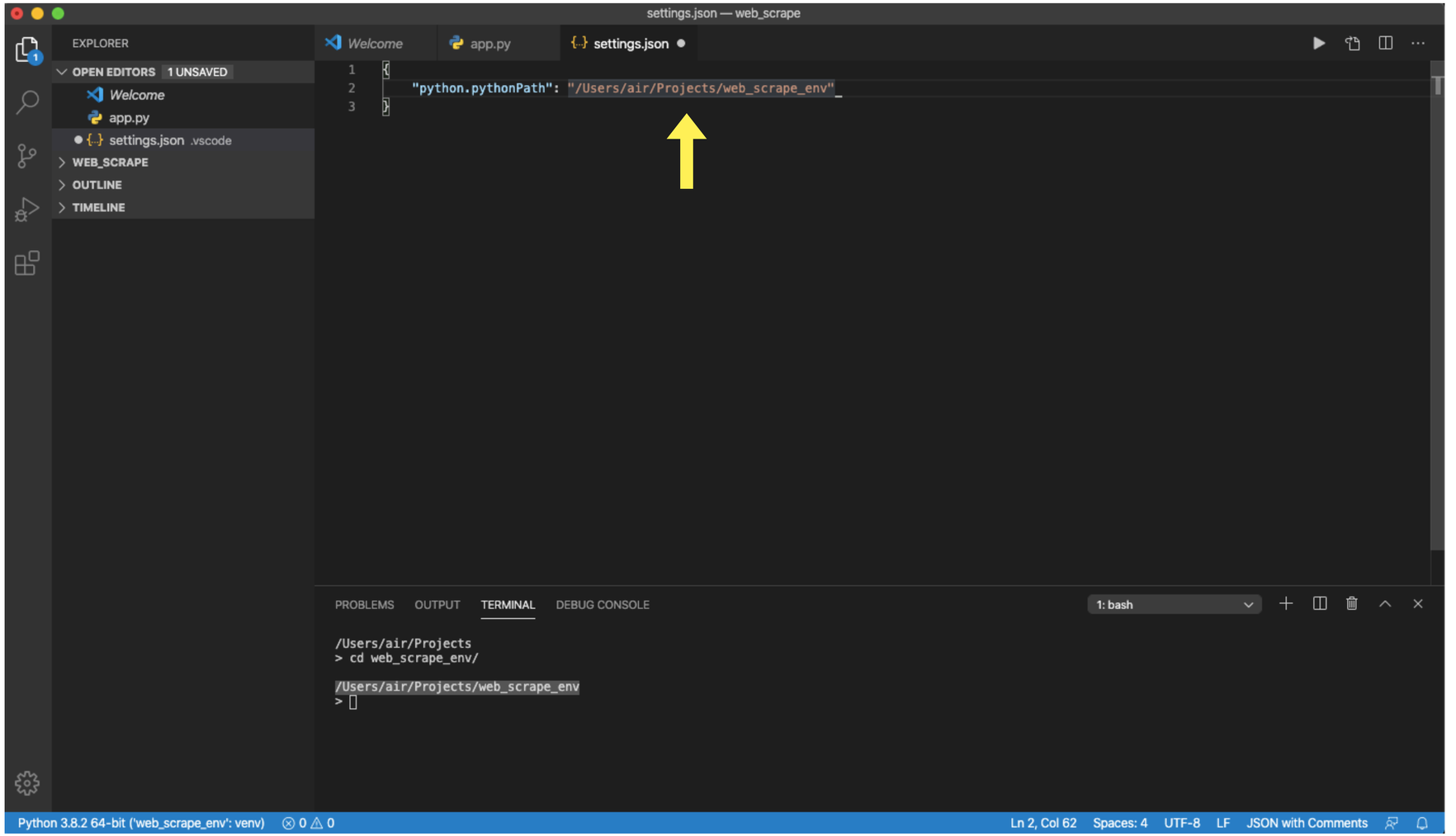
▶ open ‘Workspace Settings (JSON)’ on Command Palette (⇧⌘P)



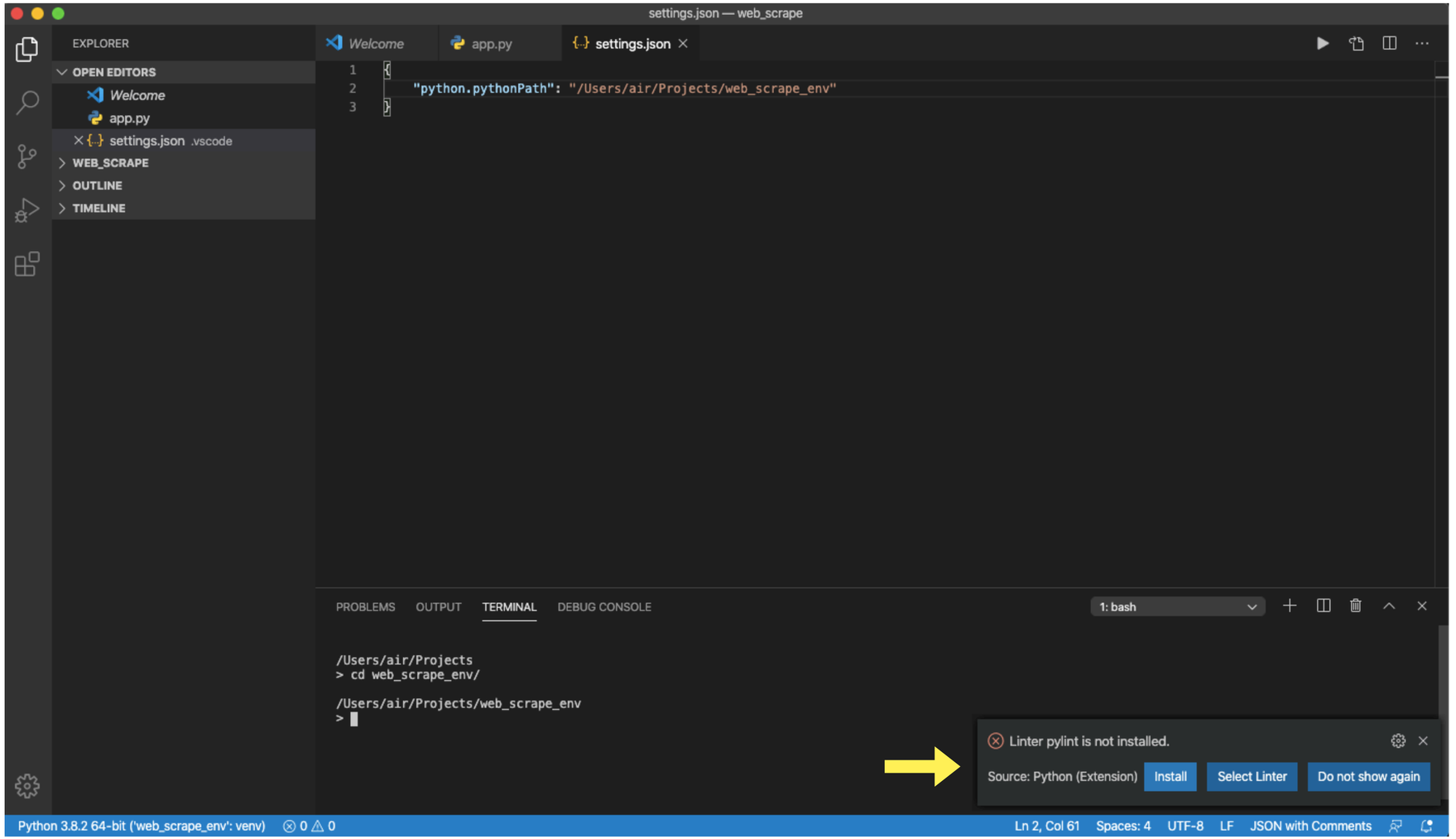
▶ type between curly brackets “python-pythonPath”: “python”



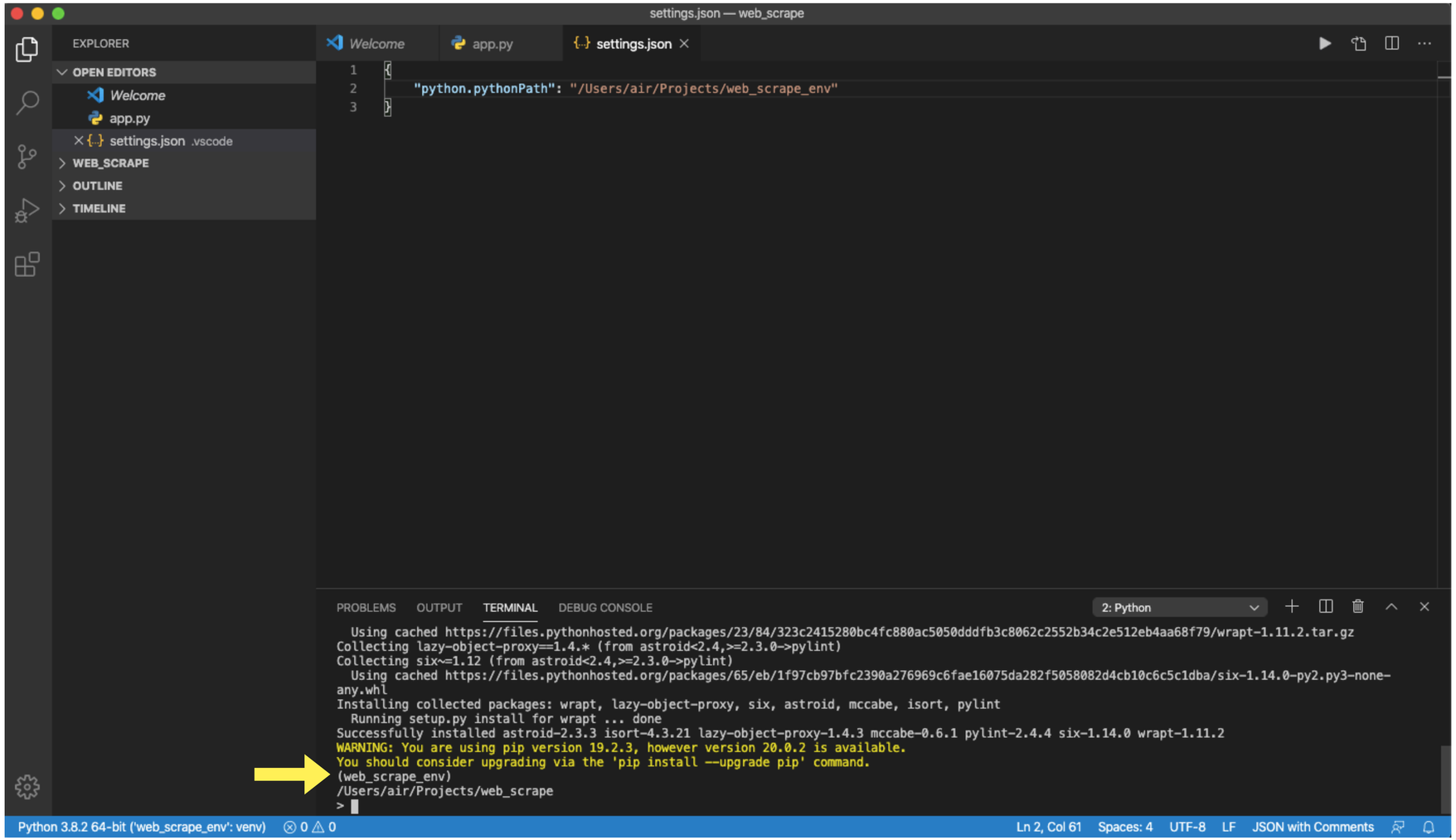
▶ open the terminal (^`), change to the environment folder then copy its path



▶ replace ‘python’ to the path of the virtual environment ‘web_scrape_env’



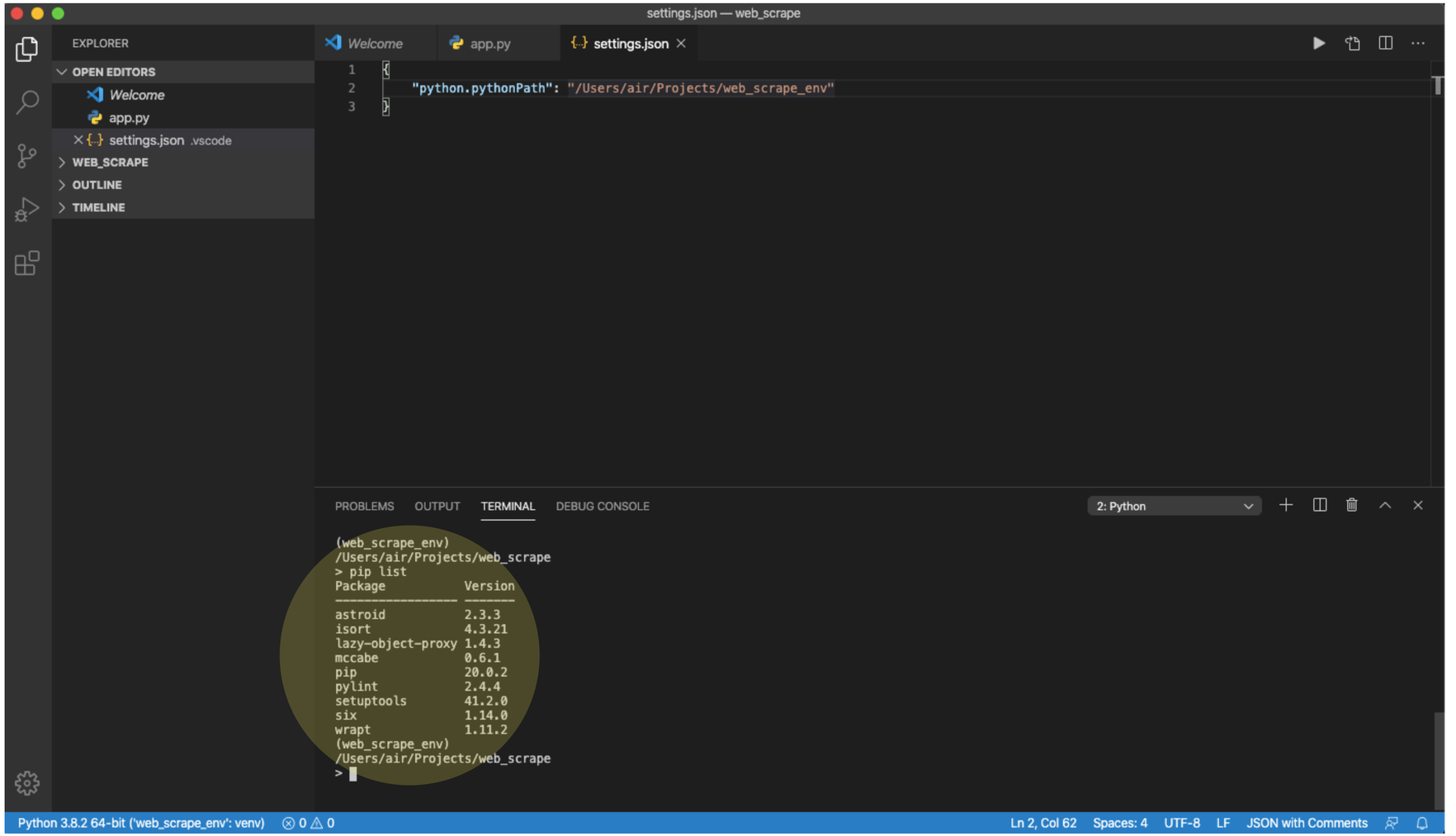
▶ if you get a message to install ‘Linter’ just confirm. Linter is a tool to analyse the source code



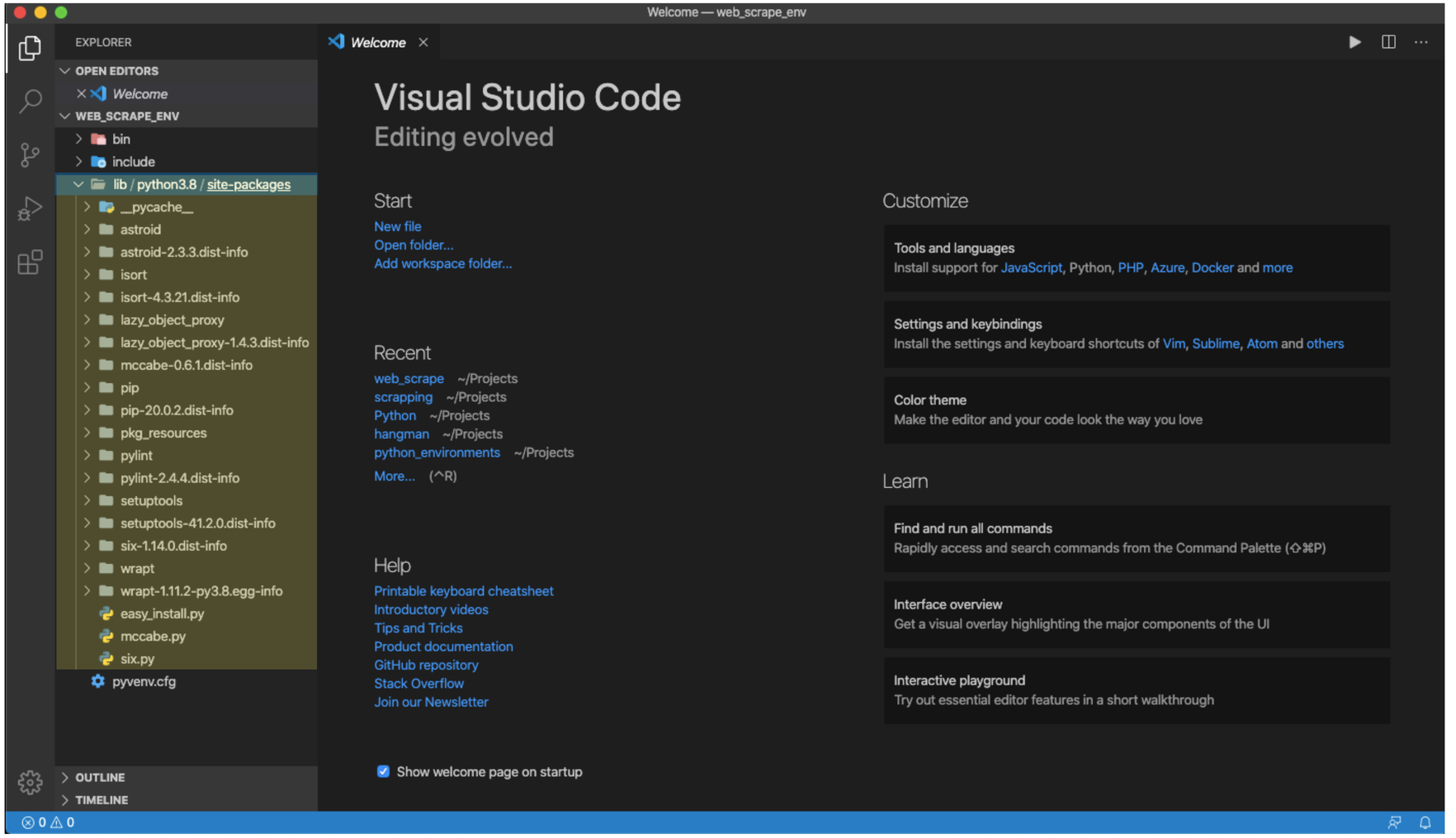
▶ now your project is pointing to the virtual environment ‘web_scrape_env’

What is that mean ‘point to the Virtual Environment web_scrape_env’?

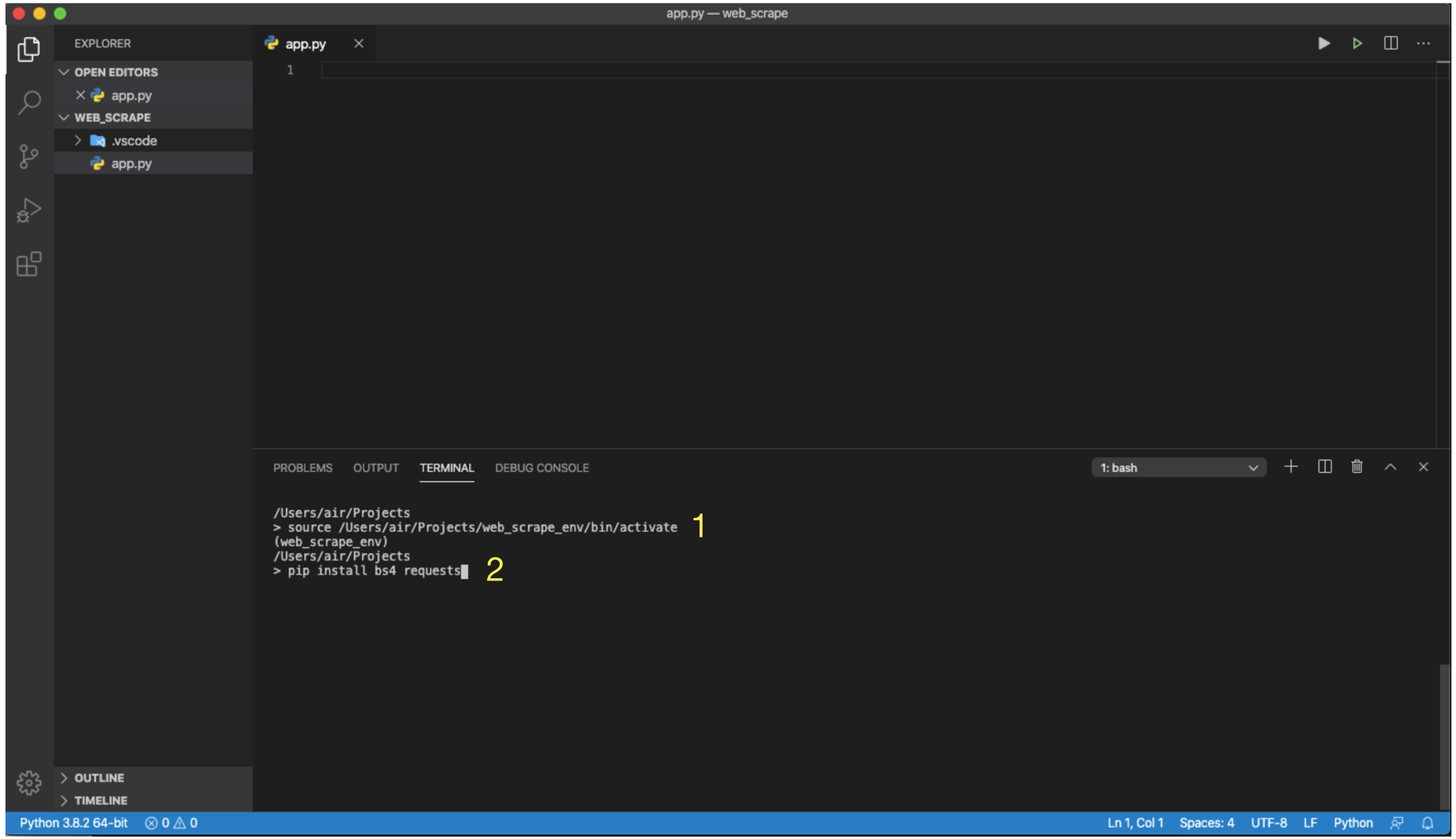
- The project will have access to the packages inside the environment
- There is no need to install packages globally for all your projects
- Imagine if you have an application that uses a package version 1.0.1 with a specific function/method, but the other version let is say 2.3.5 works completely different. You have two options: change all your code or avoid any upgrade to the new version. But if you have a version 1.0.1 in your environment v1.0.1 you do not need to worry, unless you install the new version 2.3.5.
- DO NOT forget to change your virtual environment when create a new application.



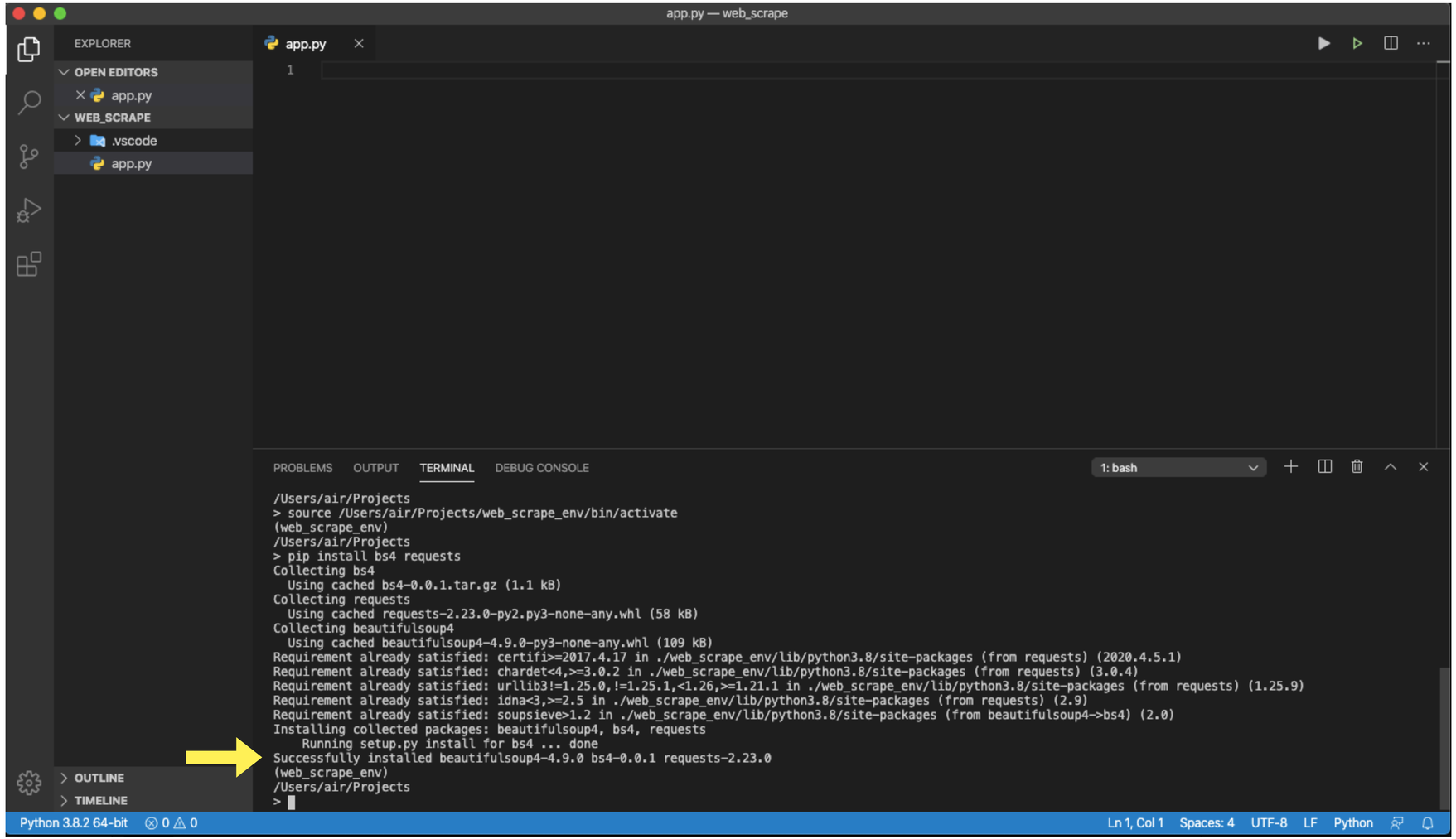
▶ enter in the terminal the command ‘pip list’. That lists the packages installed in the virtual environment



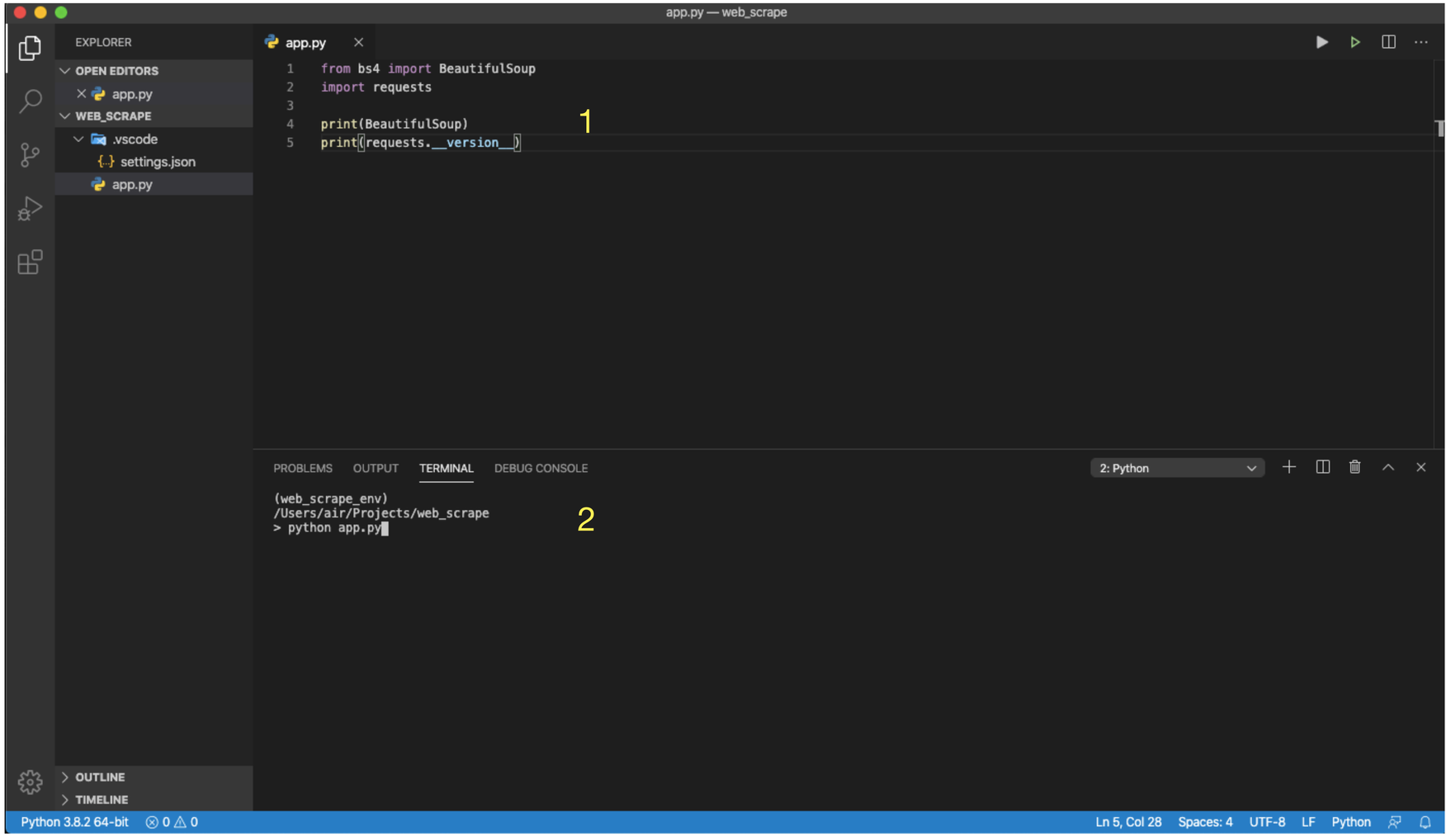
▶ location of all the packages available on your environment ‘web_scrap_env’



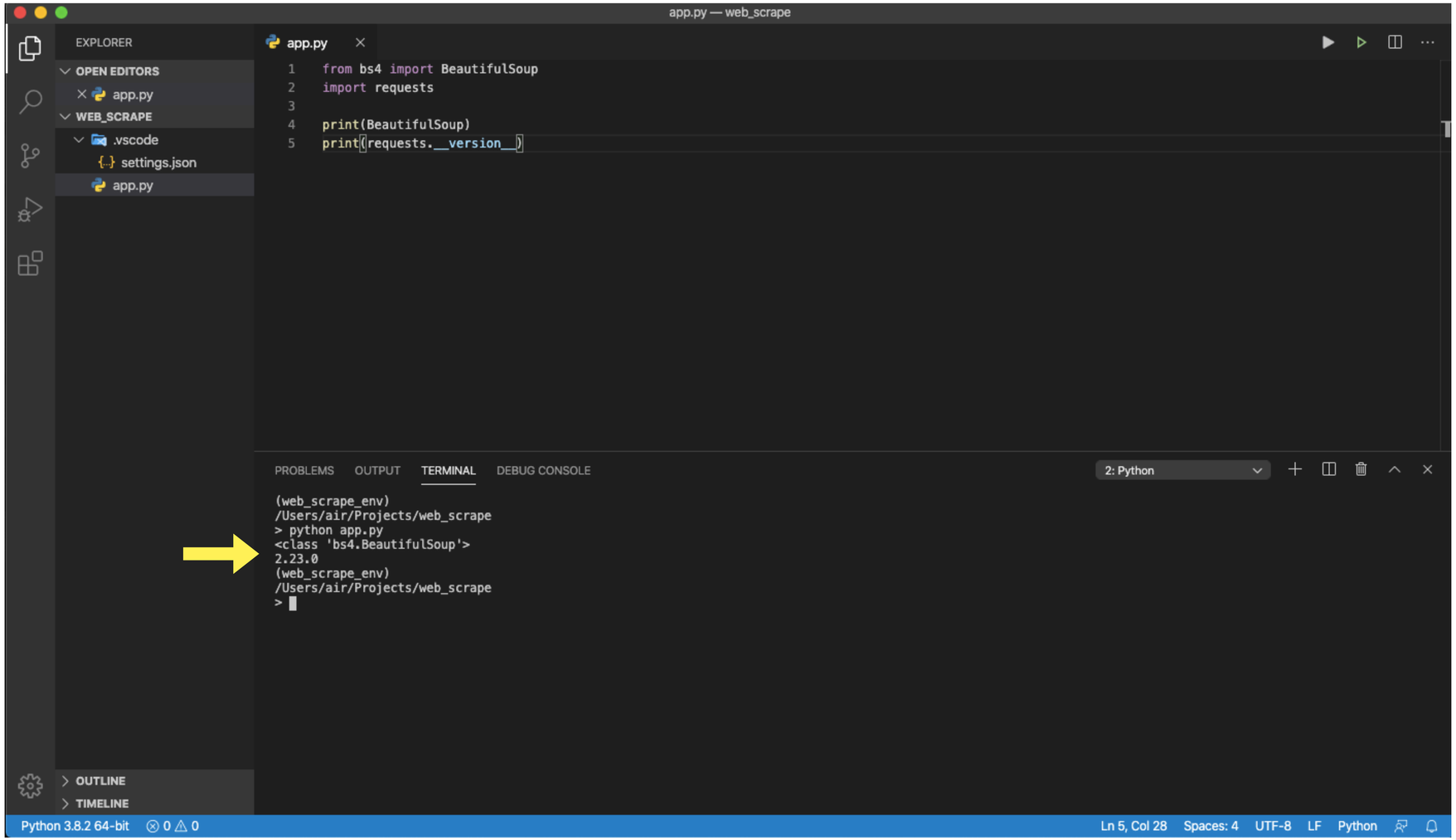
▶ on your project (1) activate virtual environment and (2) install the packages ‘beautiful soup (bs4)’ and ‘requests’



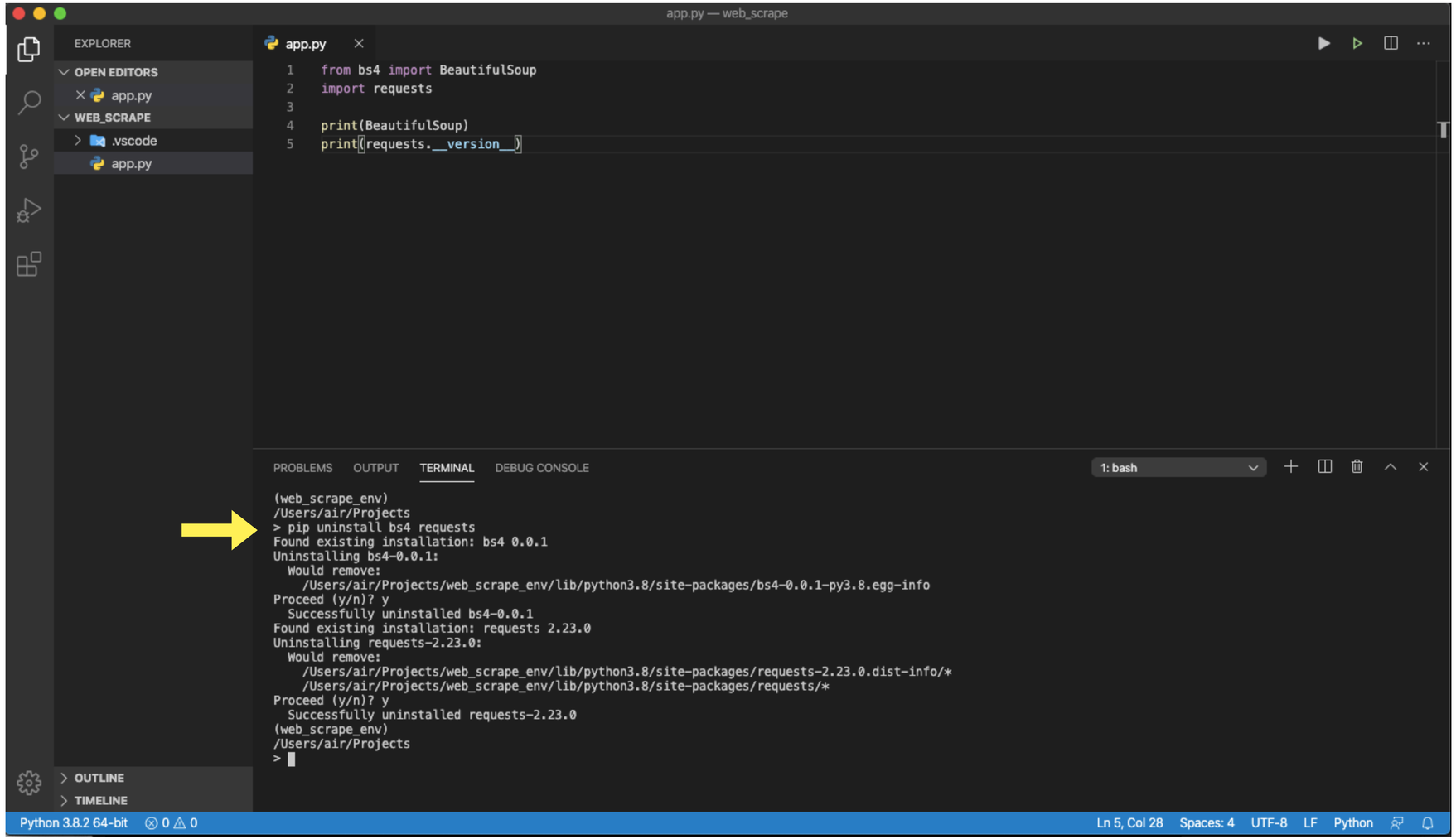
▶ now both packages are available to be used on your project



▶ type the code (1) above inside the ‘app.py’ then (2) run ‘python app.py’



▶ if all goes well you should see the following return on your prompt



▶ if you need to uninstall the packages run the command ‘pip uninstall bs4 requests’

Thanks very much

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