

# How to Create a Virtual Environment and How to Use it in VSCode/PyCharm

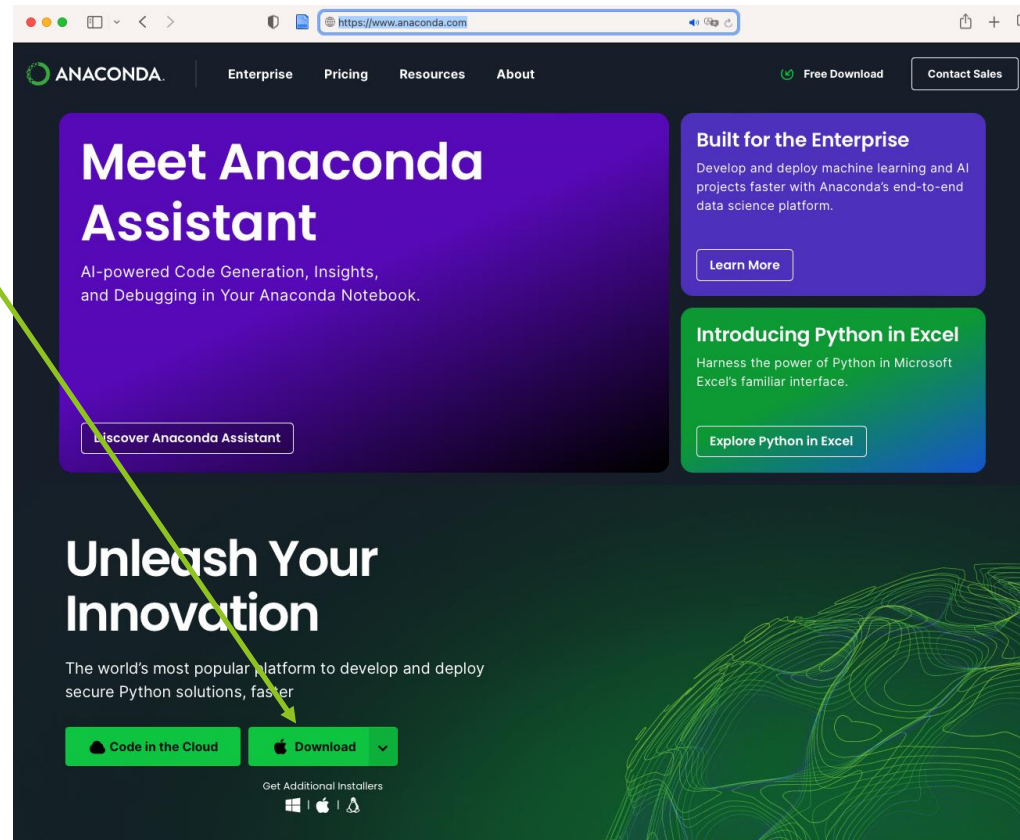
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Institute: CUHK CSE


Personal Page: <https://robinbinluo.github.io/>

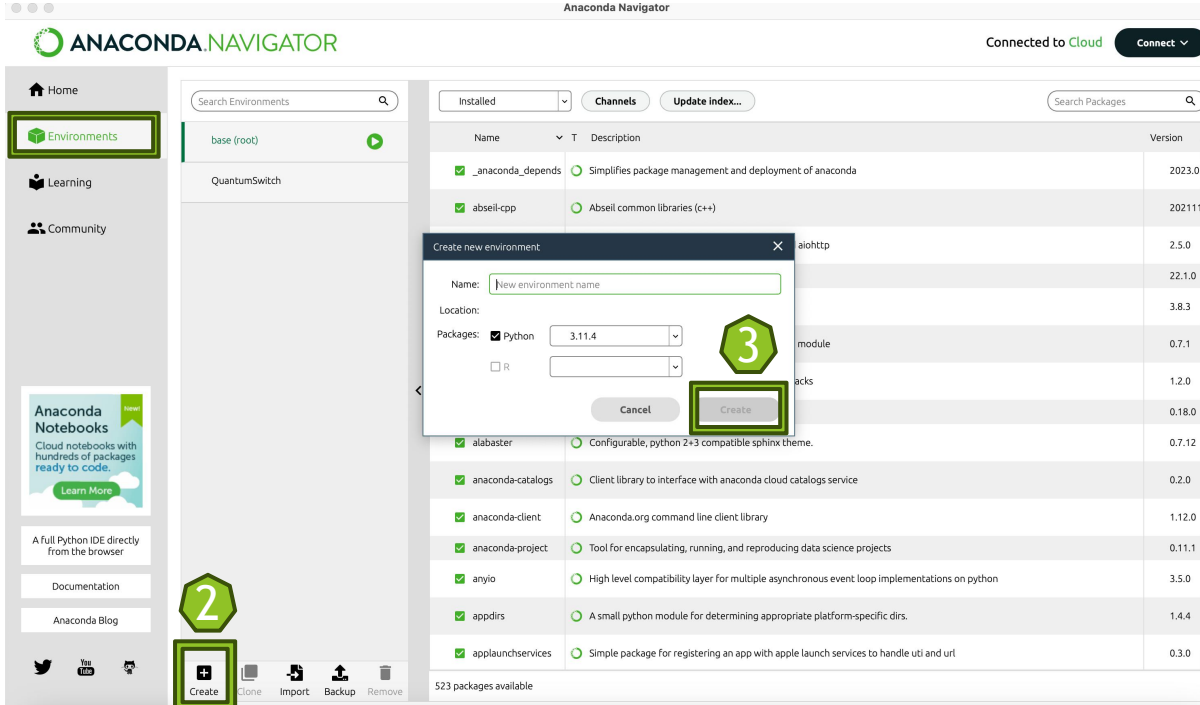
# Install Anaconda

- ▶ Use your browser to open the following website : <https://www.anaconda.com>
- ▶ Click “download” button.



# Create a Virtual Environment

- ▶ Open the Anaconda Navigator app  after installing Anaconda.
- ▶ Click the “Environment”.
- ▶ Click “Create” to create a virtual environment named by yourself.



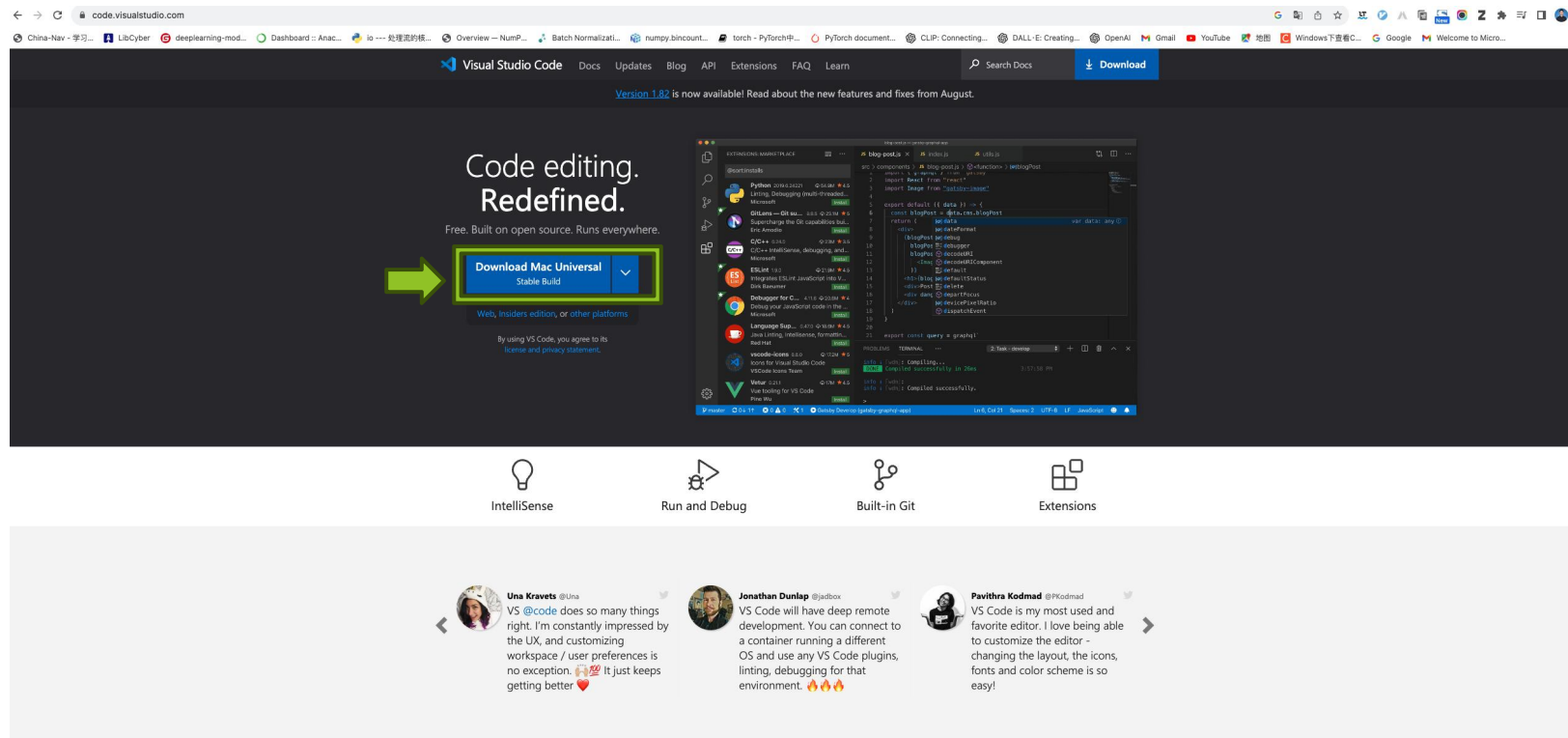
The screenshot shows the Anaconda Navigator interface. The 'Environments' tab is selected in the left sidebar, indicated by a green circle with the number '1'. The main panel displays a list of installed environments, including 'base (root)' and 'QuantumSwitch'. A 'Create new environment' dialog box is open in the foreground, with the 'Create' button highlighted by a green circle with the number '3'. The dialog box contains the following fields:

- Name:
- Location:
- Packages:  Python 3.11.4  R

The bottom of the interface shows a toolbar with a 'Create' button highlighted by a green circle with the number '2'. The top right corner indicates 'Connected to Cloud' with a 'Connect' button.

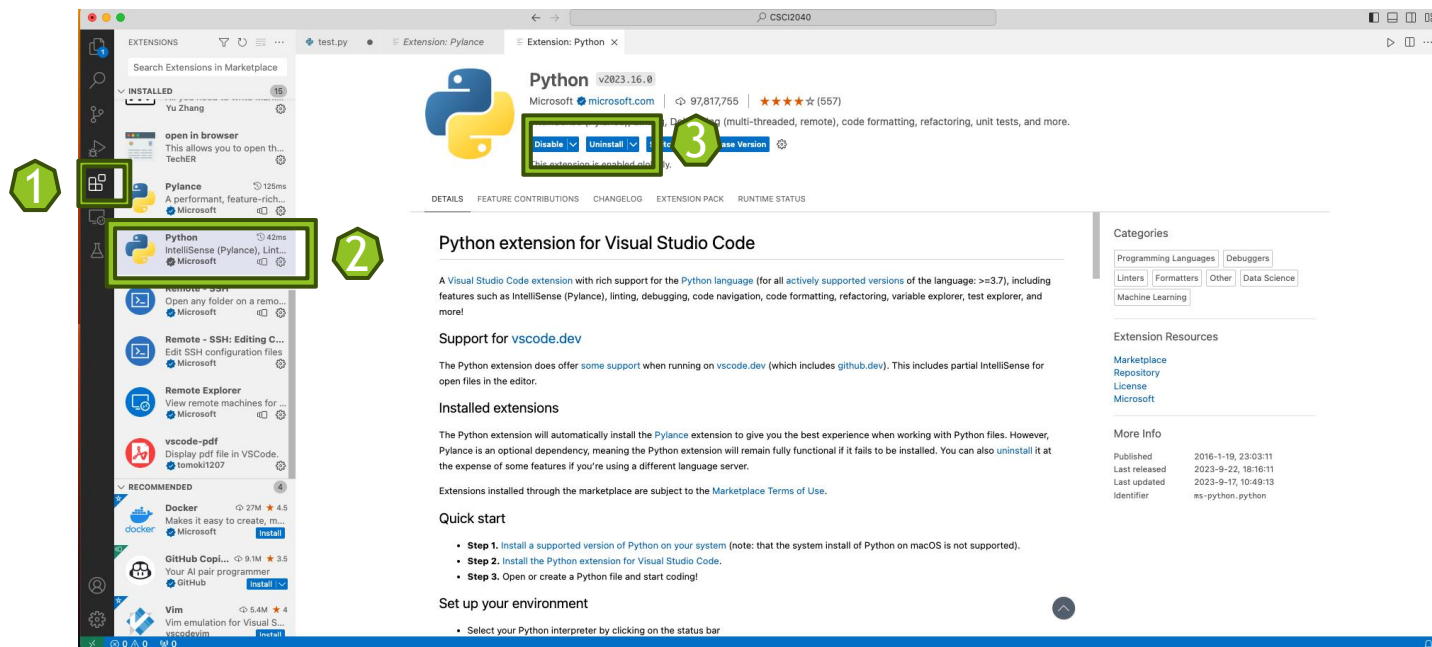
# Use VSCode to Write Codes in New Environment

- ▶ I assumed you have installed VSCode in your device. If not, you can install it in this website: <https://code.visualstudio.com>.



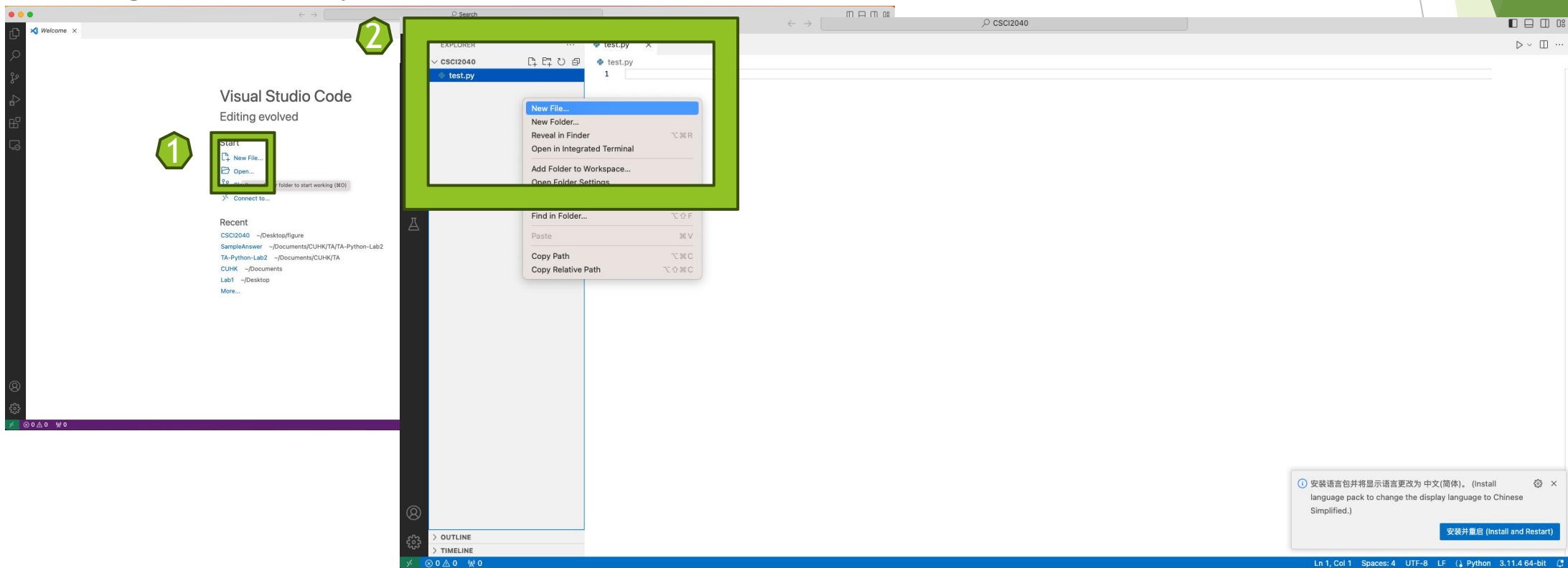
# Use VSCode to Write Codes in New Environment

- ▶ Open the VSCode and Install the Python Extension
  - ▶ To install Python Extension, open VSCode, go to the Extensions view by clicking on the Extensions icon in the Activity Bar on the side of the window, and search for 'Python'. Click 'Install' to add it.



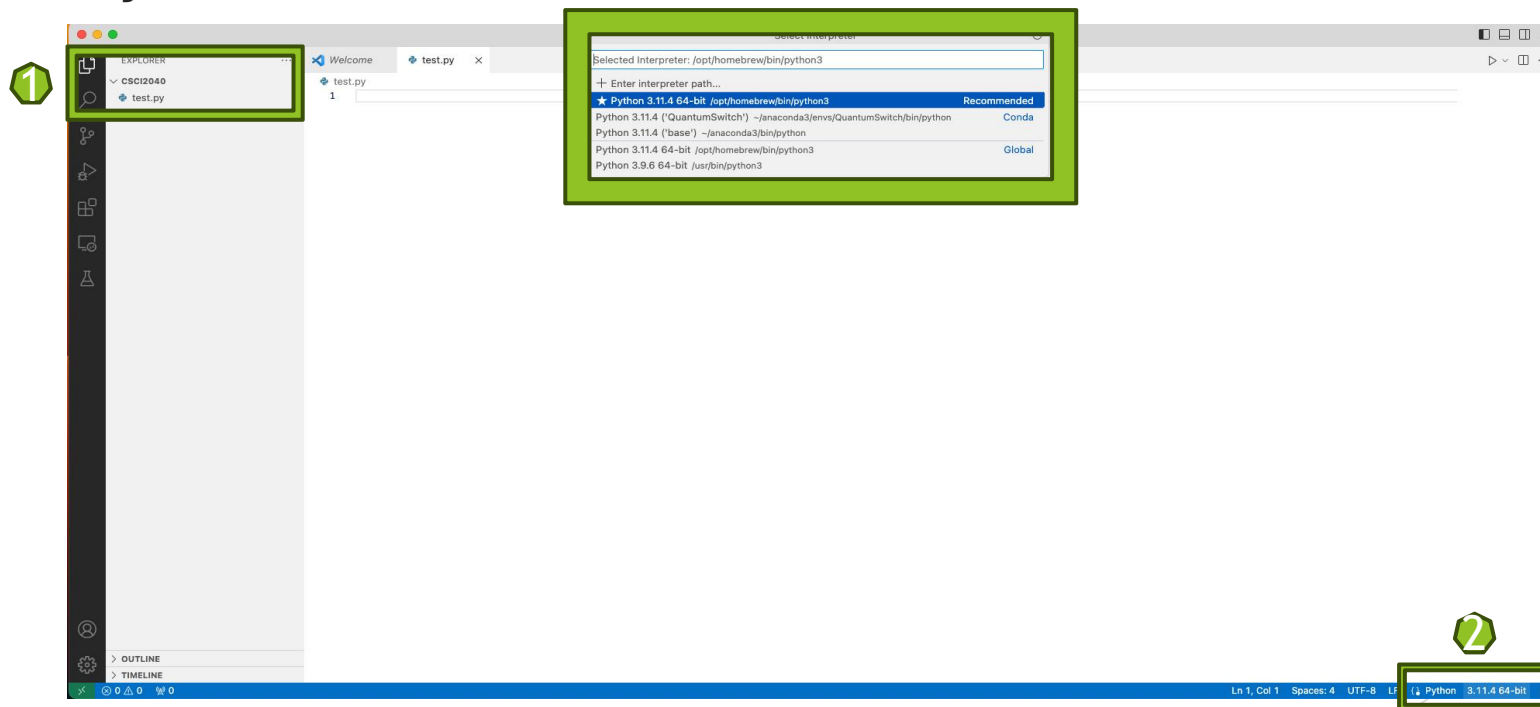
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- ▶ Open a new folder and create a new “.py file” in the folder by clicking the right button of your mouse.



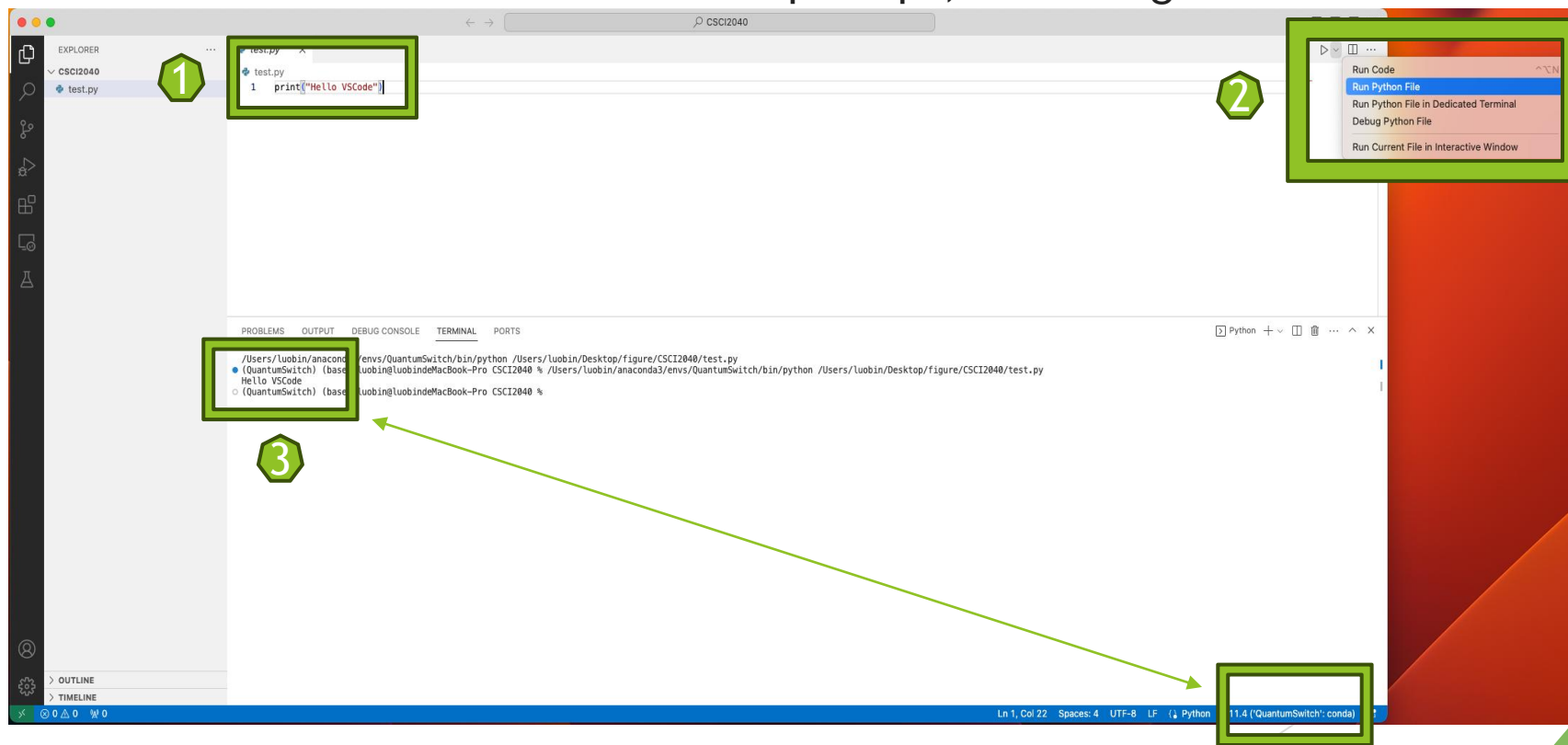
# Use VSCode to Write Codes in New Environment

- ▶ Click the button on the right bottom of window to choose which environments to use or Open the Command Palette (Win: Ctrl+Shift+P/Mac: Command+Shift+P), type 'Python: Select Interpreter', and hit Enter. A list of available interpreters will appear. Select the one that corresponds to your Anaconda environment. ③



# Use VSCode to Write Codes in New Environment

- ▶ Verify the environment activation: you can write `print("Hello VSCode")` in the `test.py` and run this `.py` file. The terminal should show the name of your Anaconda environment before the prompt, indicating that the



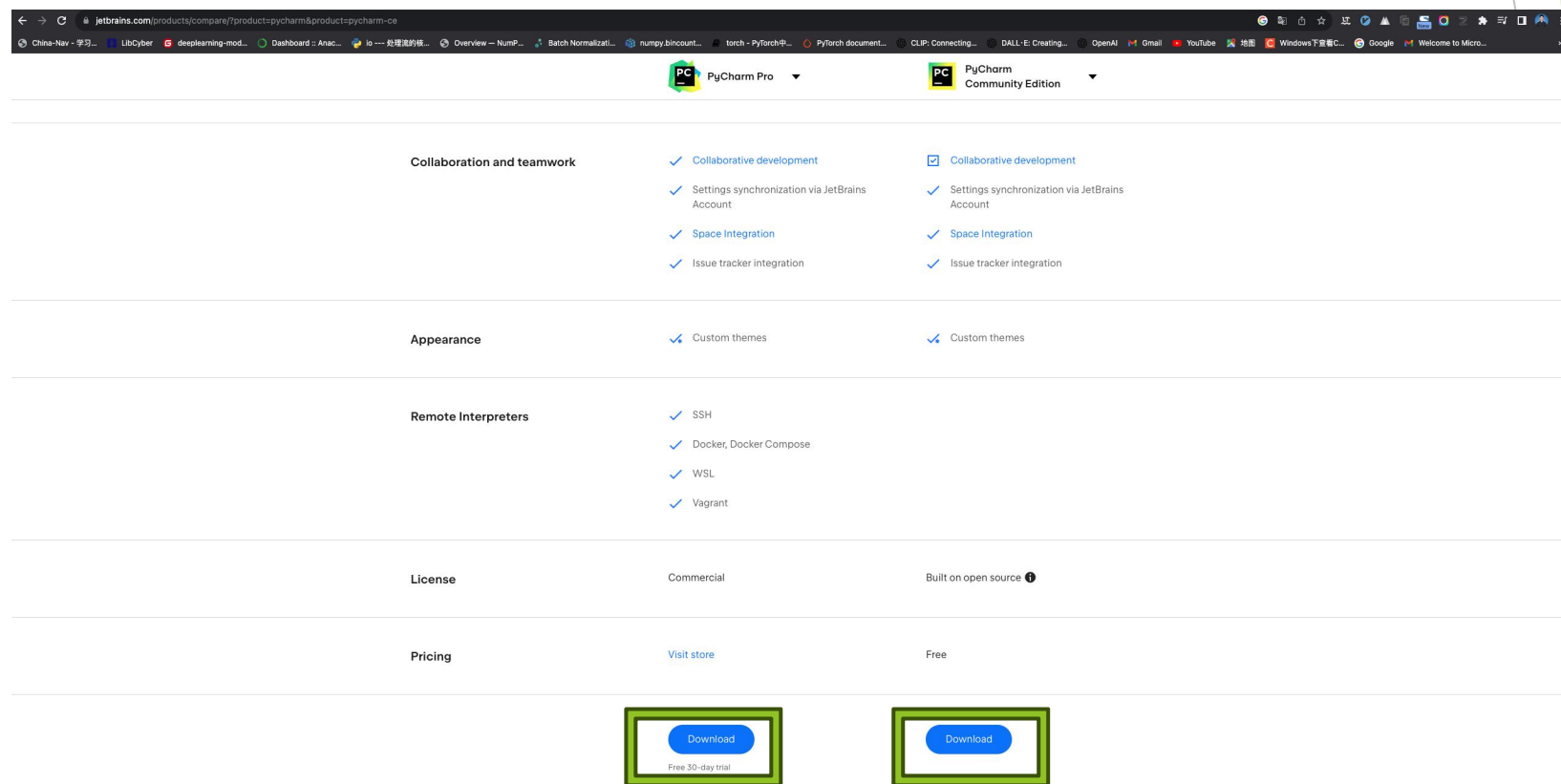


# Use VSCode to Write Codes in New Environment

- ▶ For more information, you can refer to:  
<https://saturncloud.io/blog/activating-anaconda-environment-in-vscode-a-guide-for-data-scientists/>

# Use PyCharm to Write Codes in New Environment

- ▶ Download PyCharm/PyCharm Pro in the following website:  
<https://www.jetbrains.com/products/compare/?product=pycharm&product=pycharm-ce>



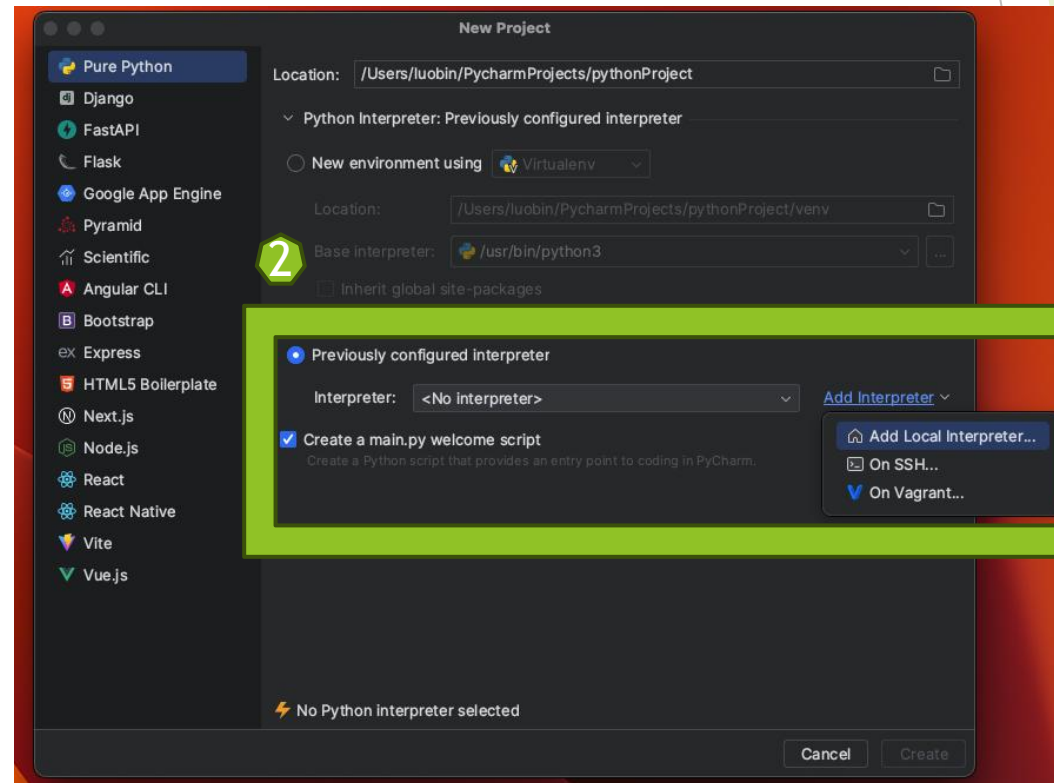
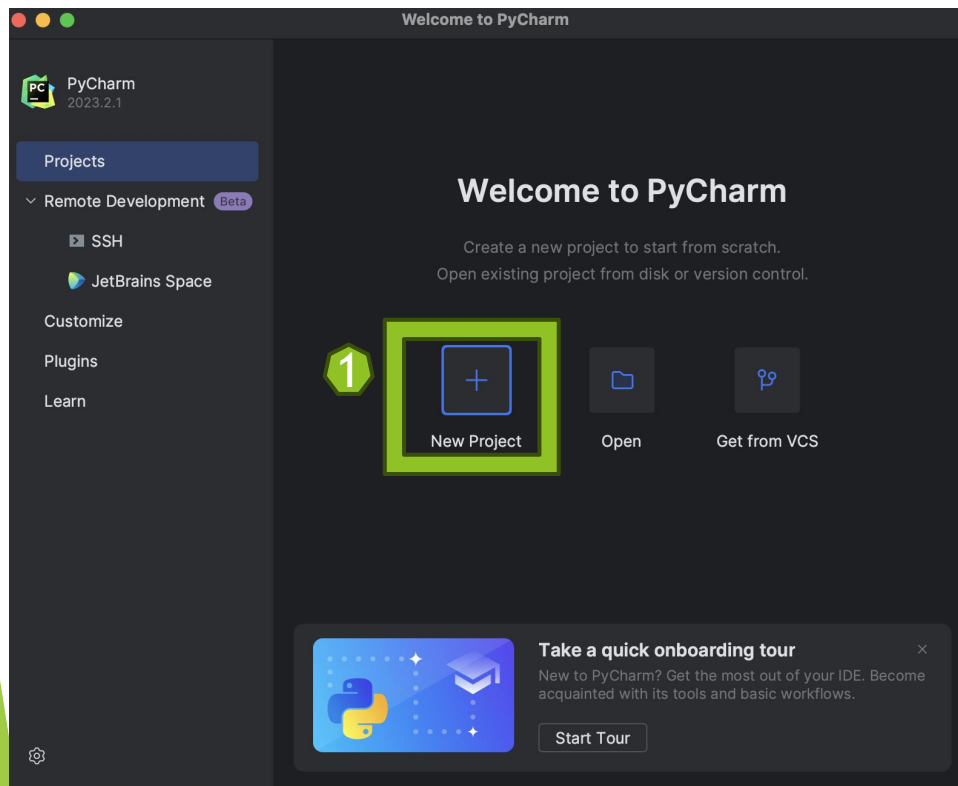
The screenshot shows a browser window displaying the JetBrains website's product comparison page. The page compares PyCharm Pro and PyCharm Community Edition across several categories. The browser's address bar shows the URL: <https://www.jetbrains.com/products/compare/?product=pycharm&product=pycharm-ce>. The page features a table with the following content:

	PyCharm Pro	PyCharm Community Edition
<b>Collaboration and teamwork</b>	<ul style="list-style-type: none"><li>✓ Collaborative development</li><li>✓ Settings synchronization via JetBrains Account</li><li>✓ Space Integration</li><li>✓ Issue tracker integration</li></ul>	<ul style="list-style-type: none"><li>✓ Collaborative development</li><li>✓ Settings synchronization via JetBrains Account</li><li>✓ Space Integration</li><li>✓ Issue tracker integration</li></ul>
<b>Appearance</b>	<ul style="list-style-type: none"><li>✓ Custom themes</li></ul>	<ul style="list-style-type: none"><li>✓ Custom themes</li></ul>
<b>Remote Interpreters</b>	<ul style="list-style-type: none"><li>✓ SSH</li><li>✓ Docker, Docker Compose</li><li>✓ WSL</li><li>✓ Vagrant</li></ul>	
<b>License</b>	Commercial	Built on open source
<b>Pricing</b>	<a href="#">Visit store</a>	Free

At the bottom of the page, there are two "Download" buttons. The button for PyCharm Pro is highlighted with a green box and includes the text "Free 30-day trial" below it. The button for PyCharm Community Edition is also highlighted with a green box.

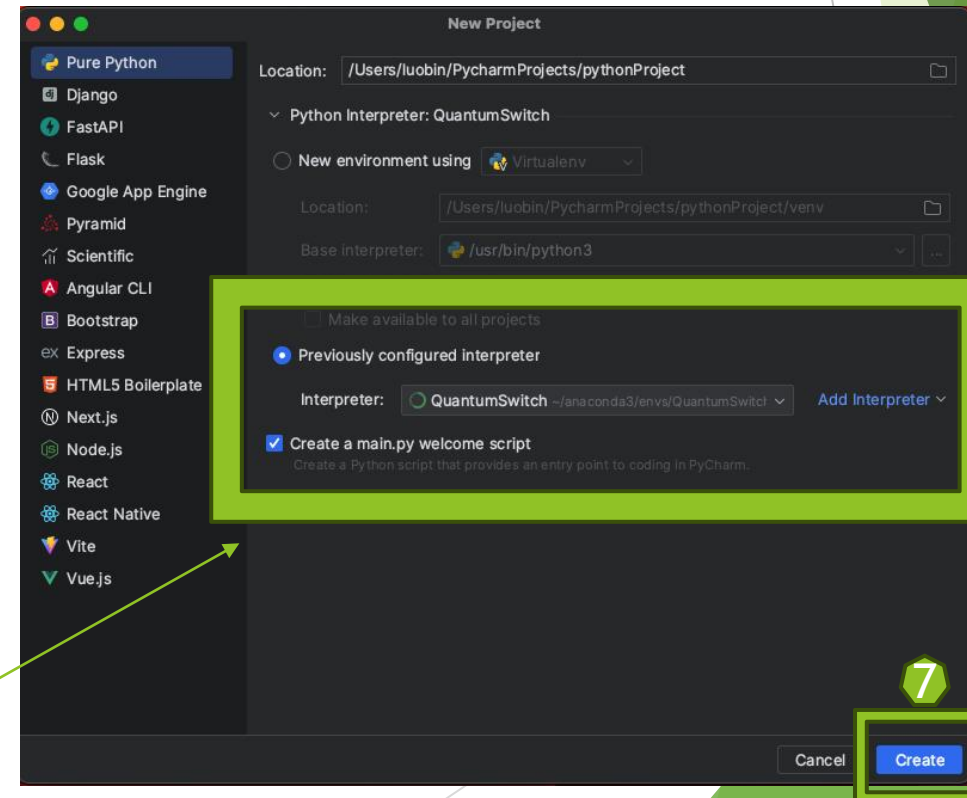
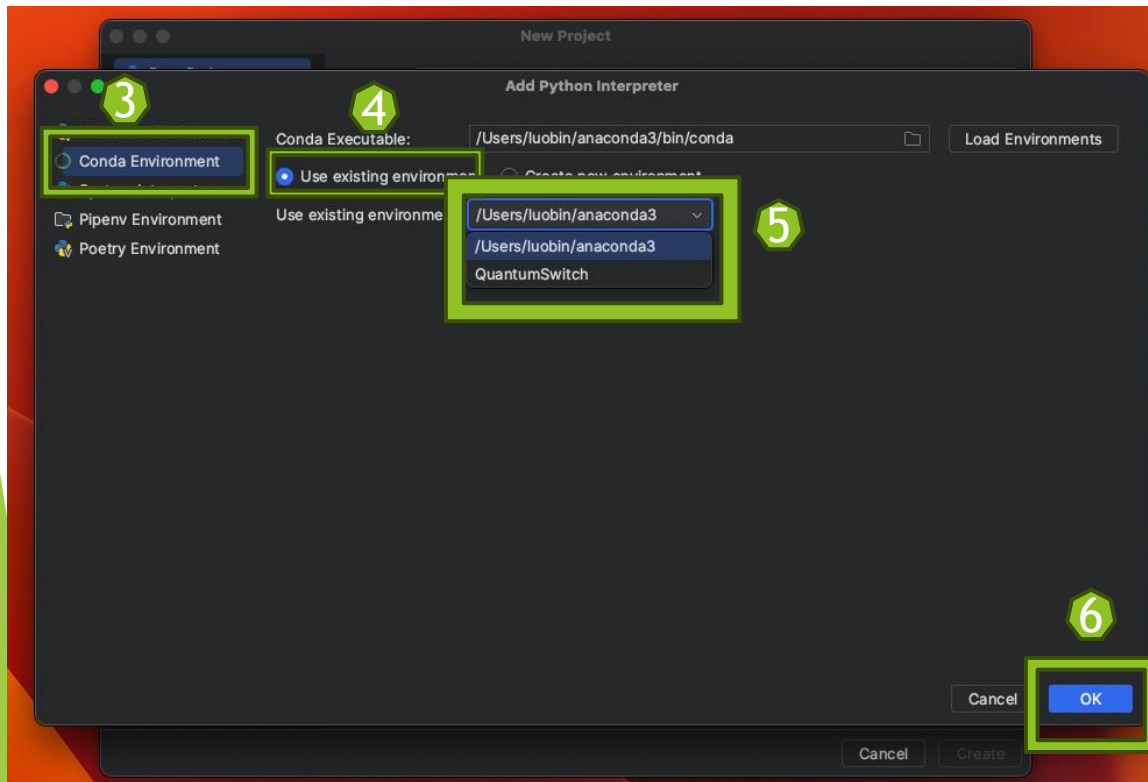
# Use PyCharm to Write Codes in New Environment

- ▶ Open PyCharm and start to create a new project with new environment.



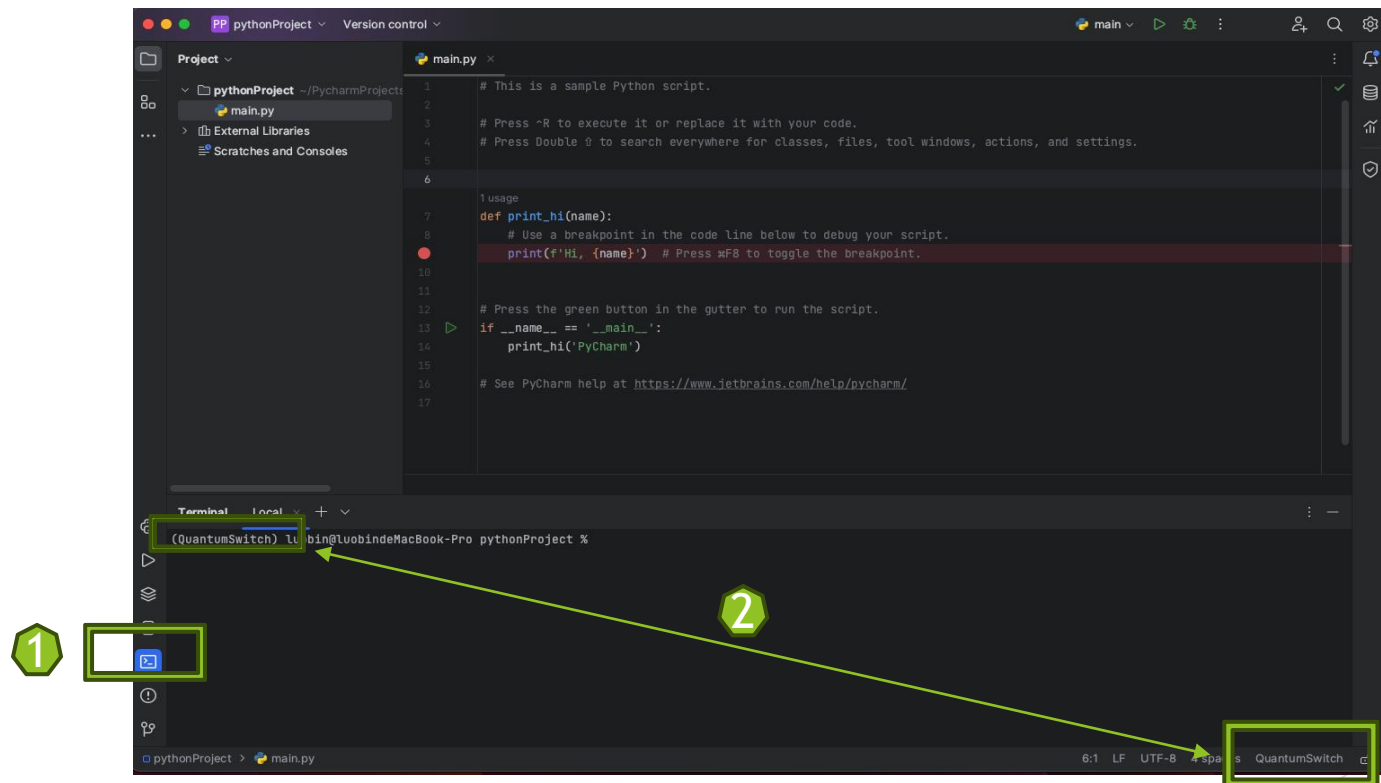
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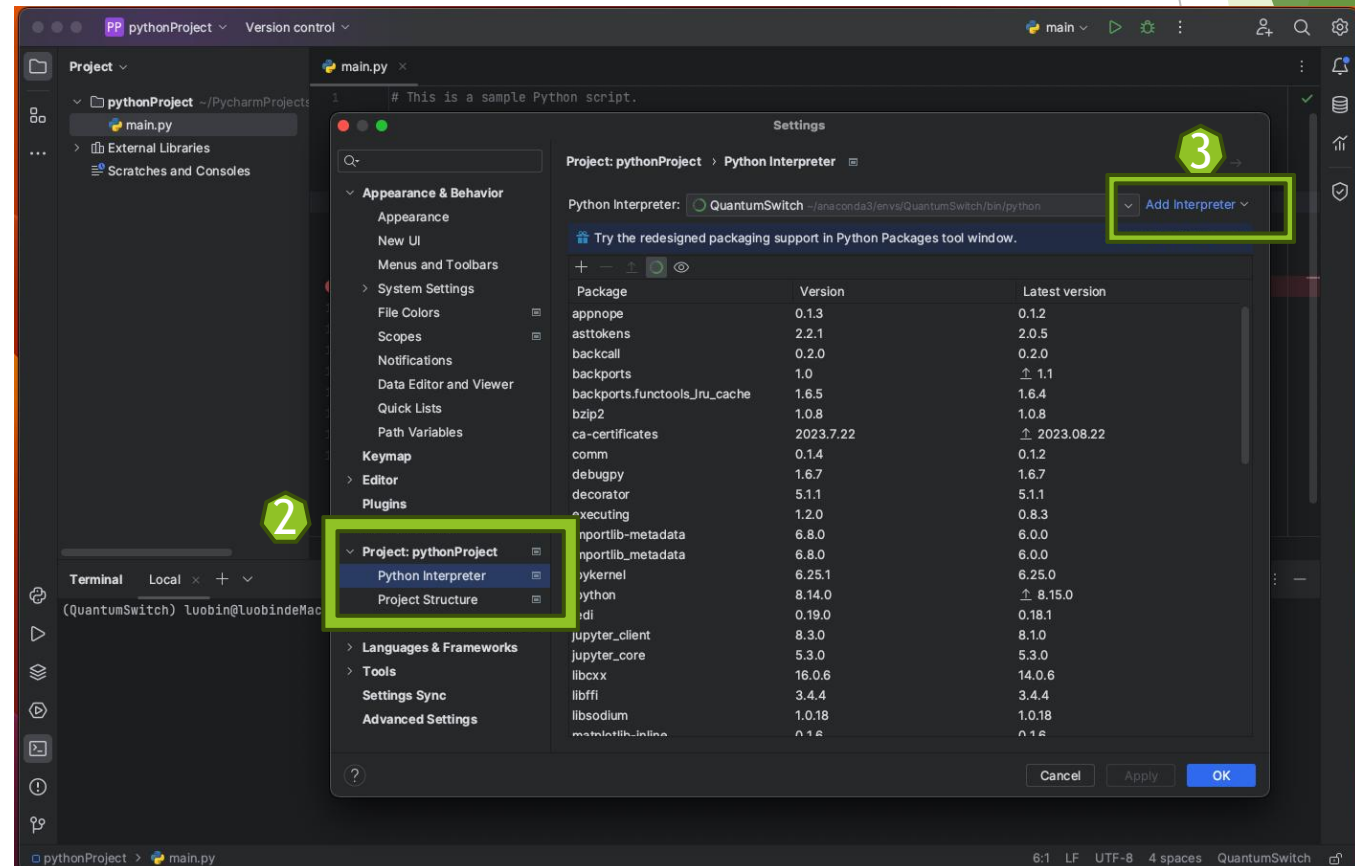
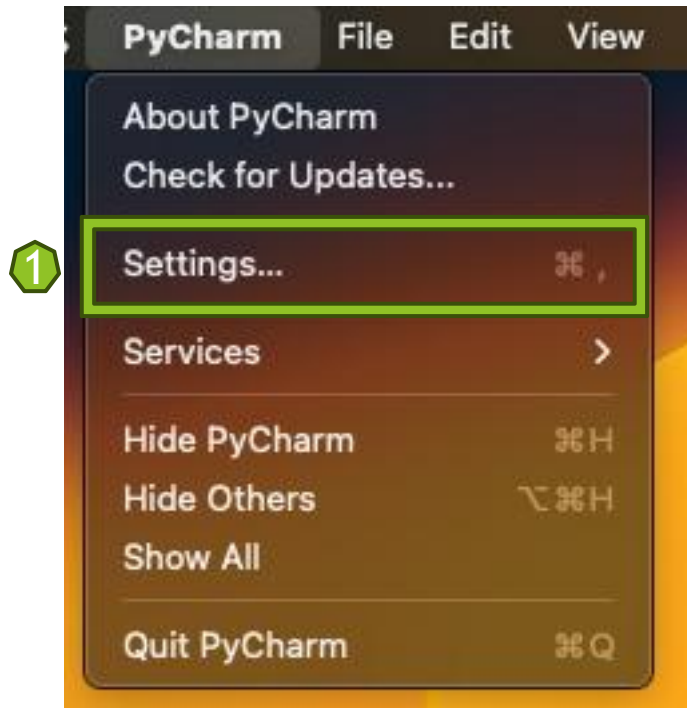
# Use PyCharm to Write Codes in New Environment

- ▶ Verify the environment activation: The terminal should show the name of your Anaconda environment before the prompt, indicating that the environment is active.



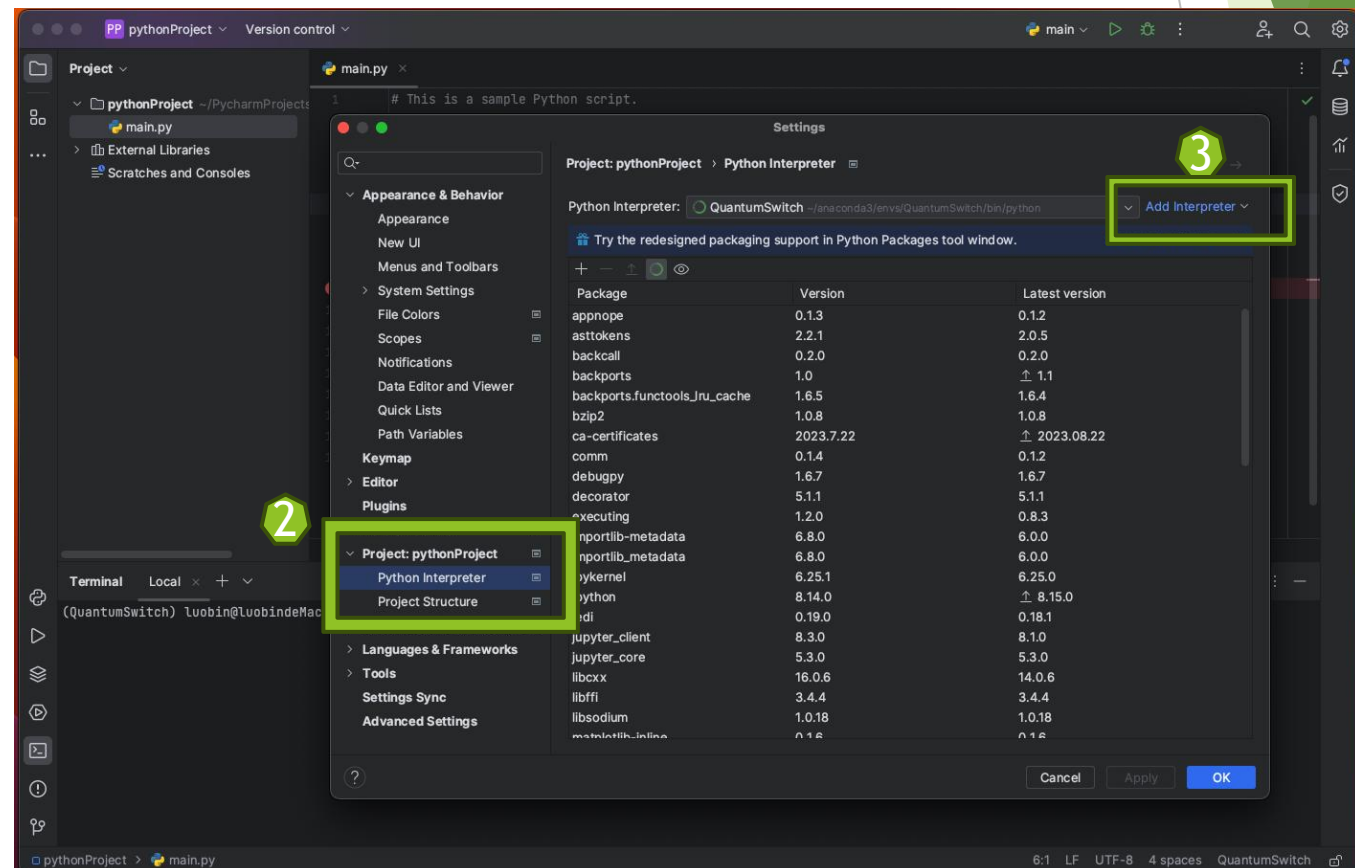
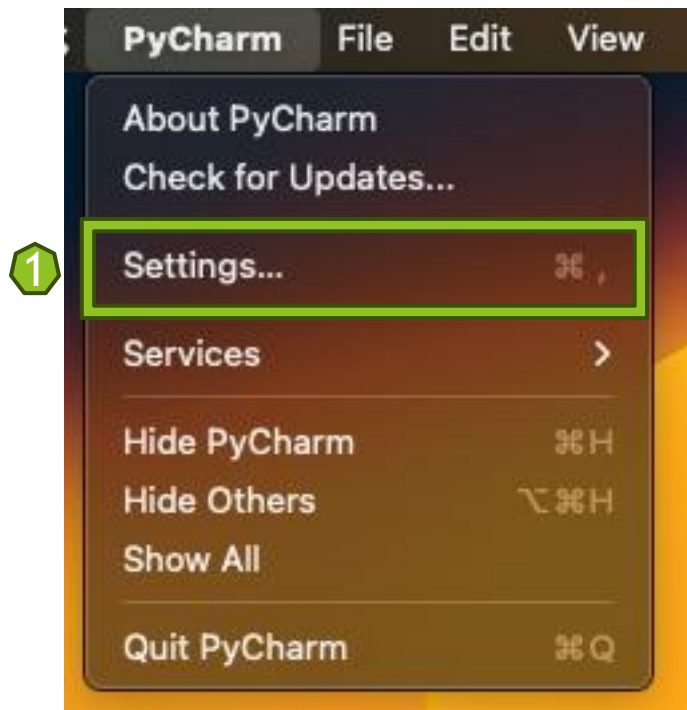
# Use PyCharm to Write Codes in New Environment

- Change environment in your existing project and file.



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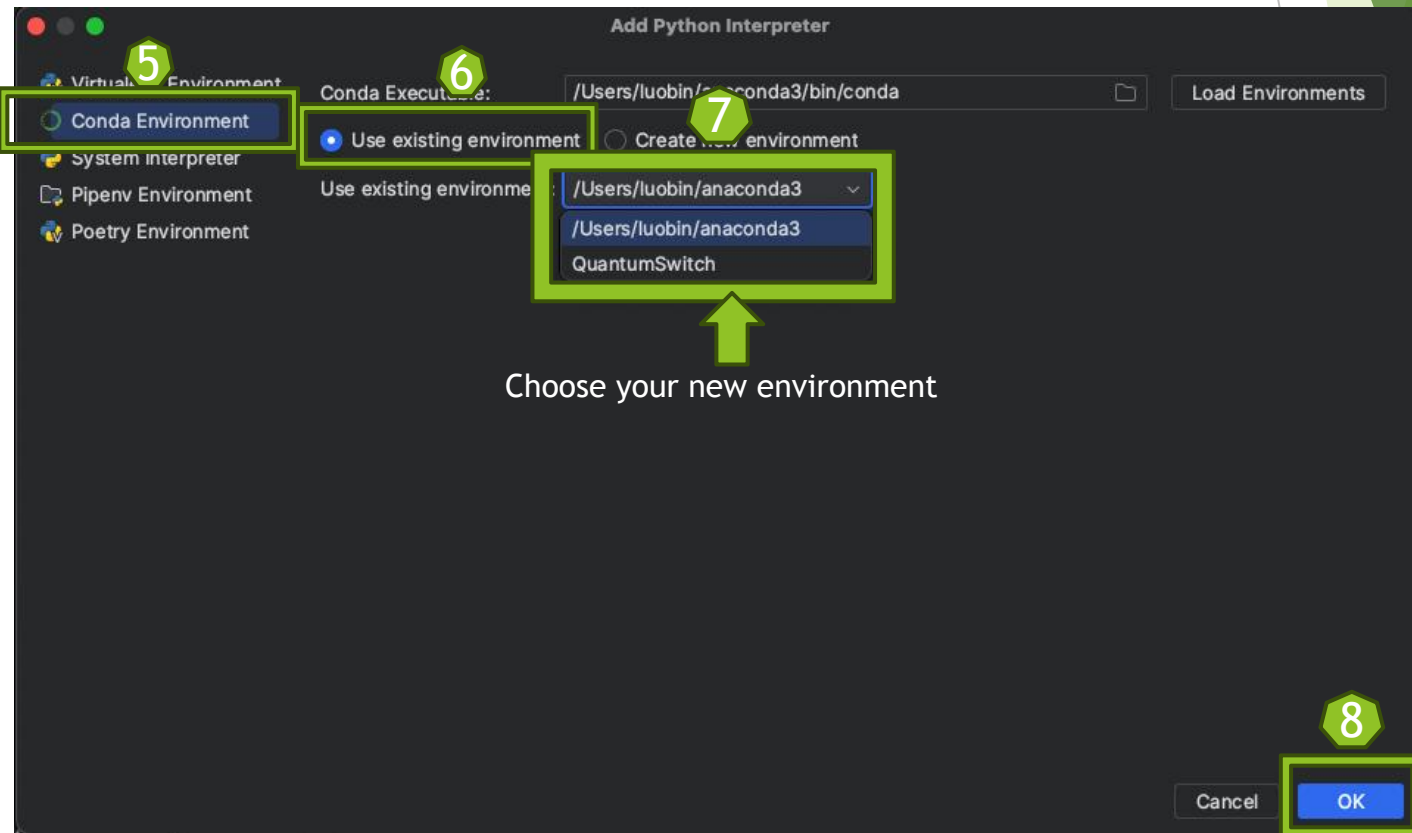
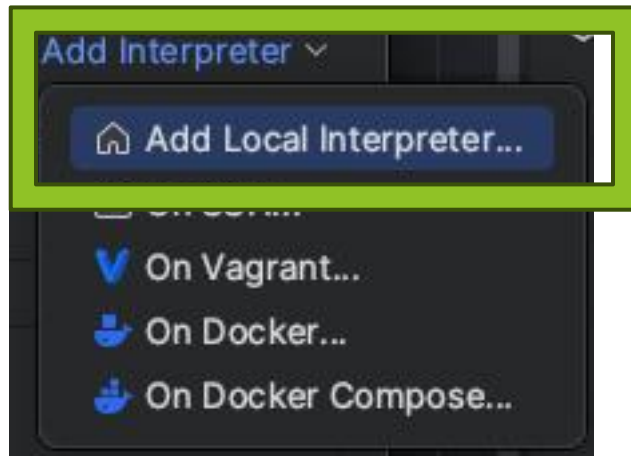




# Use PyCharm to Write Codes in New Environment

- ▶ Change environment in your existing project and file and remember to verify the activation.

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The End