Getting Python to work with CoppeliaSim on Windows/ Mac
^^ ^^^^

NOTE:
1) These instructions on how to install python (after installing CoppeliaSim) are illustrated in this video (only for Windows)
https://youtu.be/VEYa5MxCFDk

2) You can also install and run CoppeliaSim on Ubuntu. Follow the instructions for Mac.

1. Install CoppeliaSim
~~~~~~~~~~~~~~~~~~~~
Download CoppeliaSim Edu from https:// www.coppeliarobotics.com/ based on your operating system
Install CoppeliaSim by double clicking the link (Windows) or dragging and dropping the .dmg file in Applications folder (Mac)

2. Install python from python.org
~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Got to python.org.

Select the installer for your operating system. Download the installer. When installing check the option that says "Add python.exe to PATH". Select "install now"

3. Find the location of python

~~~~~~~~~~~~~~~~~~~~~~~
Open command window by typing cmd in search bar or terminal on mac

In cmd / terminal type
 where python

It will typically be in a path like this on Windows
C:\Users\<username>\AppData\Local\Programs\Python\Python312\python.exe

DO NOT choose the default windows installation which is in the path
C:\Users\<username>\AppData\Local\Microsoft\WindowsApp\python.exe

on Mac
/Library/Frameworks/Python.framework/Versions/3.11/bin/python3

4. Put the path in userset.txt
~~~~~~~~~~~~~~~~~~~~~~~~

Now trying running test_script.ttt
The code will not run but it will tell you that you need to add the python part in the userset.txt file. It will give you the path.

For me the path was
C:
\Users\<username>\AppData\Roaming\CoppeliaSim\users
et.txt

on mac
/Users/<username>/.CoppeliaSim/userset.txt
NOTE: On mac you can get this file by goint to Finder >
Go > Go To Folder and typing /Users/
<username>/.CoppeliaSim

Open the userset.txt and search for
"defaultPython = ''

Here put the path. Something like this
defaultPython = C:C:
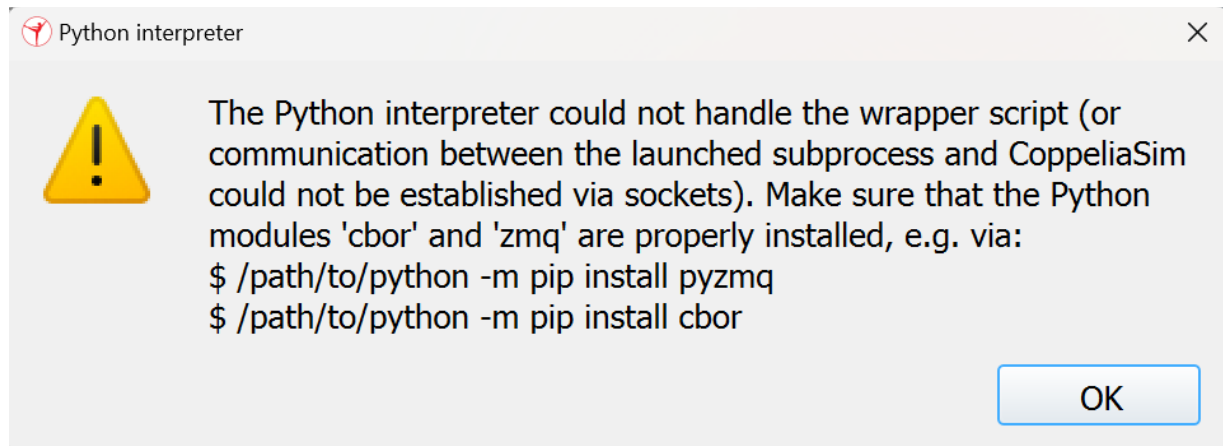\Users\<username>\AppData\Local\Programs\Python\Pyth
on312\python.exe
or
defaultPython = /Library/Frameworks/Python.framework/
Versions/3.11/bin/python3

5. Setup pyzmq, cbor, and numpy
~~~~~~~~~~~~~~~~~~~~~~~

Close CoppeliaSim and open it. Try running test_script.ttt
It will not run and ask you to install cbor and pyzmq

Python interpreter ✕

⚠ The Python interpreter could not handle the wrapper script (or communication between the launched subprocess and CoppeliaSim could not be established via sockets). Make sure that the Python modules 'cbor' and 'zmq' are properly installed, e.g. via:
$ /path/to/python -m pip install pyzmq
$ /path/to/python -m pip install cbor

OK

Open command window using "cmd" in the search bar and type the following. Ensure you have an internet connection

C:\Users\<username>\AppData\Local\Programs\Python\Python312\python.exe -m pip install pyzmq
or
/Library/Frameworks/Python.framework/Versions/3.11/bin/python3 -m pip install pyzmq

Once pyzmq installs then type in cmd

C:\Users\<username>\AppData\Local\Programs\Python\Python312\python.exe -m pip install cbor
or
/Library/Frameworks/Python.framework/Versions/3.11/bin/python3 -m pip install cbor

Once cbor installs then type in cmd

C: \Users\<username>\AppData\Local\Programs\Python\Python312\python.exe -m pip install numpy
or
/Library/Frameworks/Python.framework/Versions/3.11/bin/python3 -m pip install numpy

Once numpy installs close CoppeliaSim

You can also install other packages e.g., scikit-learn. Simple replace pyzmq/cbor/numpy in the above example with the package name e.g., scikit-learn

6. Run the test_script.ttt in CoppeliaSim to check installation
~~~~~~
Open CoppeliaSim. Then open the test_python_script.ttt. On the top horizontal panel press the icon which looks like the play button.

If the script runs fine, you will see the ball dropping on the floor and the visualization window just below the simulation printing these lines repeatedly

Python script running
sin 0.5=0.479425538604203

You are all set.