

Operations Manual

A³

3198 8659

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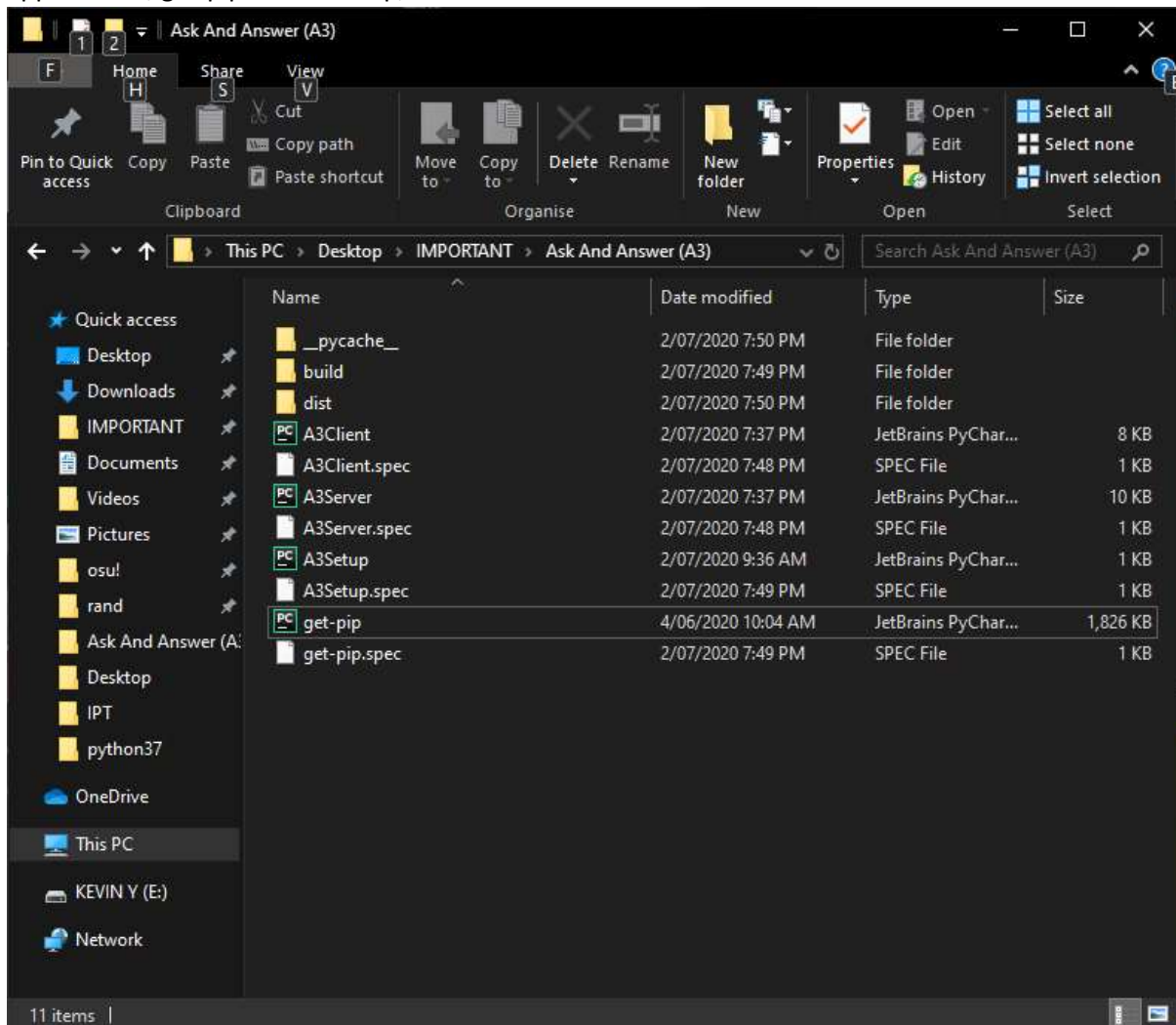
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Installation and Initial Setup guide

To ensure that the program runs smoothly and as intended, python version 3 should be downloaded and the program run with it, but it does support running without python.

Without Python

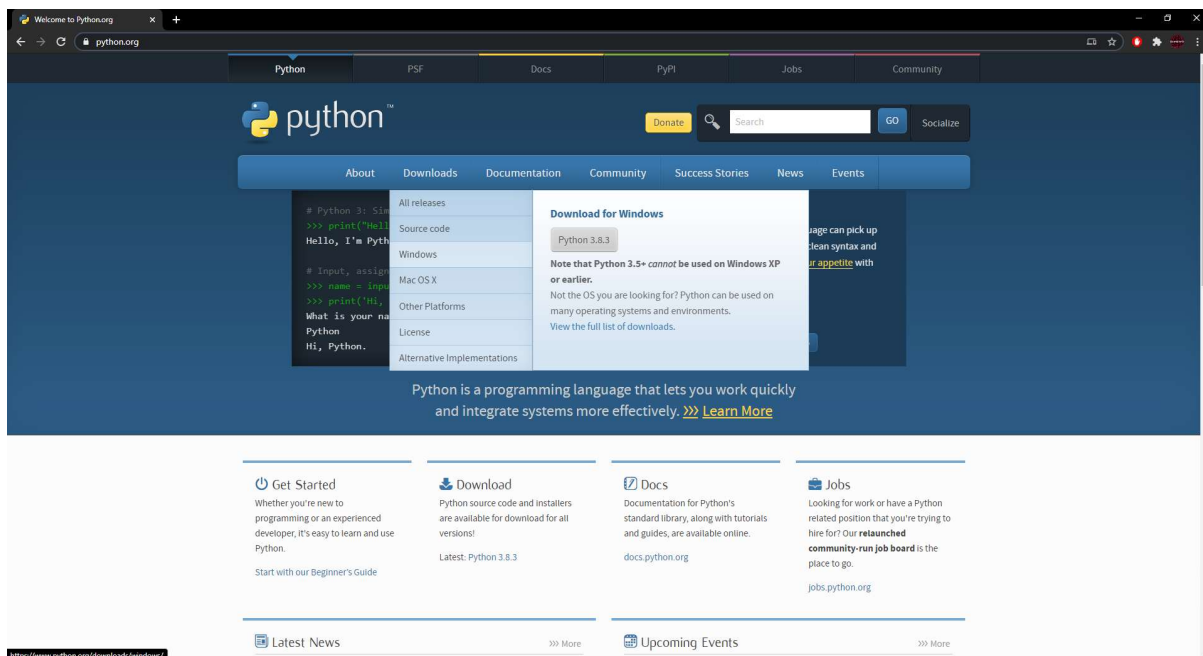
To be able to run A³ without installing python, some modules need to be downloaded and imported into your system. To do this, the set up applications, which are included in the program files, must be run first. Navigate to the 'dist' folder, where all the executable applications are, and run the two applications, get-pip and A3Setup, in that order.



The applications will each open a command line interface, where it will fetch the required modules, install them, and close itself. If the window does not disappear by itself, you can just close it, and it will work just fine. After that, everything is set up and the program will function.

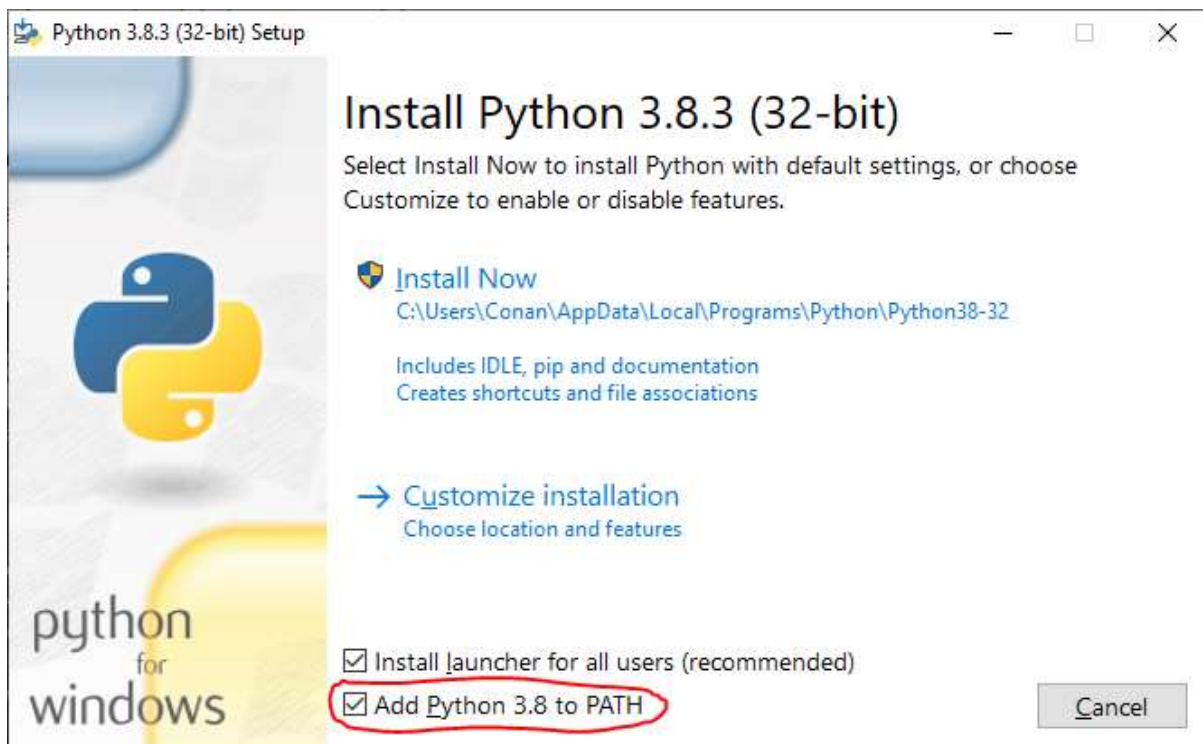
With Python

Running A³ with python is the intended method of running, and will most likely run more smoothly if done so. First of all, download and install a version of python version 3, preferably any version of 3.7, from <https://www.python.org/>. Go to the downloads tab and select the appropriate operating software as shown below:



Any version of python version 3 should work, but version 3.7 will work the best, as the program was written from that version.

When installing, make sure to tick the checkbox that says: “Add python 3.x to PATH”



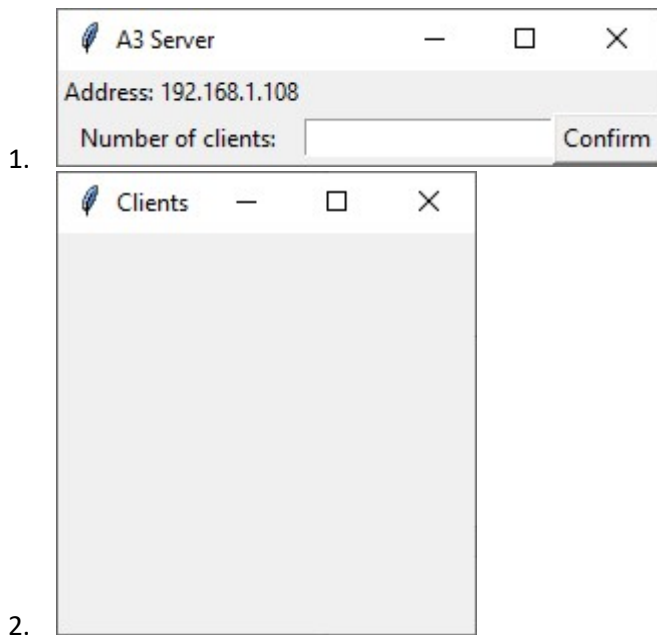
After python has been successfully installed, the program can be run through the .pyw files, instead of the .exe files. Before that, however, the set up still needs to be done. Navigate to the 'Set up' folder and run get-pip.py and A3Setup.py file. After that, the program is ready to be used.

! If any problems arise during installation, please refer to the troubleshoot page at the end of this document !

Operation Manual

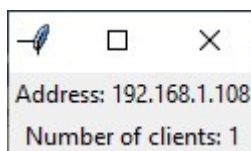
- Server side

When you first launch A3Server, two windows will open:

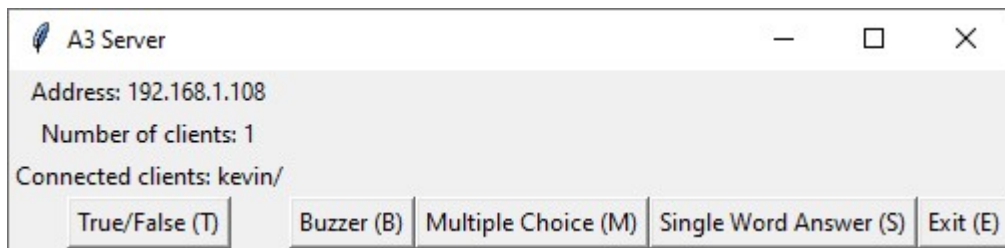


The second window is a list of connected clients, that will update once all clients have connected to the server.

The first window displays your IPV4 address, which the clients will use to connect to you once the server is running. The entry box is used to type in how many clients will be connecting to the server, and you can confirm it by pressing the button on its right or by pressing enter. Once the number of clients has been confirmed, until all clients connect, the server will not do anything other than show this:

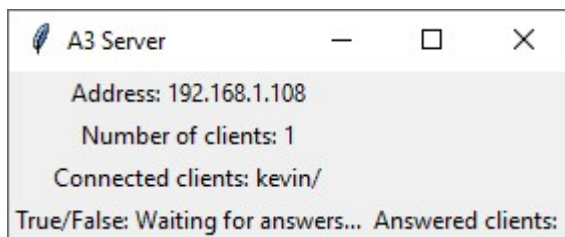


Once all clients have connected, you will be given options to ask the questions:

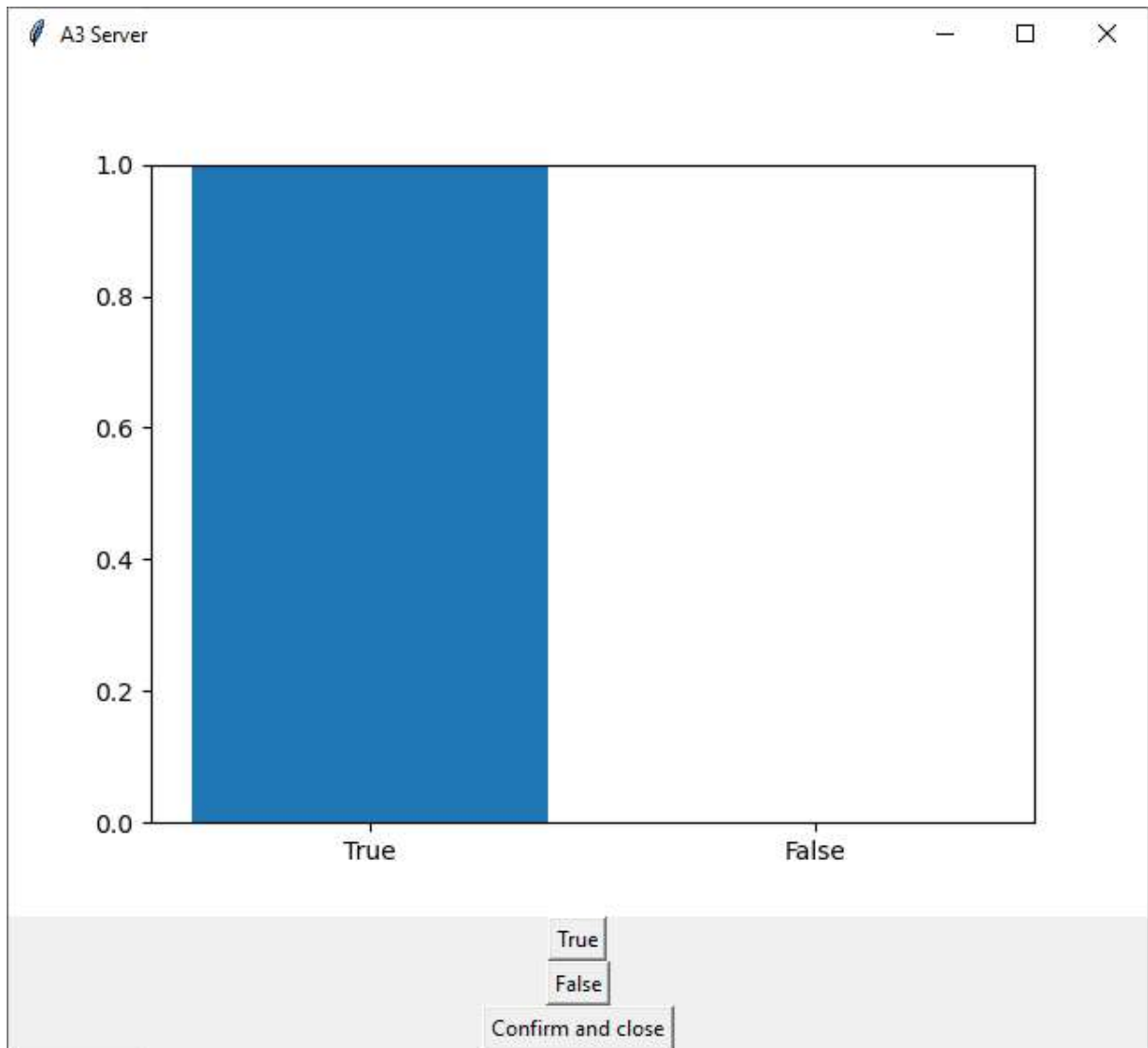


- True/False (T)
 - Allows the clients to answer with either True or False.
- Buzzer (B)
 - Allows only the first client to press the buzzer.
- Multiple Choice (M)
 - Allows the clients to answer with either, A, B, C or D.
- Single Word Answer (S)
 - Allows the clients to answer with a short word or number.
- Exit (E)
 - Closes the server, also closing all clients on their devices.

Once any of the buttons are pressed, with the exception of the Exit button, there will be a waiting prompt, specifying what question was sent. For example, if True/False question was sent:



Once all clients have answered, a graph showing all the answers will show, with radio buttons to allow you to select the correct one, and a confirm and close button to close the graph and assign the points to the necessary clients.



The axis on the left shows the number of clients who responded with that answer. After the graph window is closed, the original window will reset back to its question form, ready to ask another question or close the program.

When the program is closed, a .csv file will be outputted with the title of the day's date. It will contain a record of the clients, questions and answers.

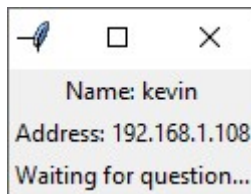
	A	B	C
1	Question Type	Question	kevin
2	True/False	1	True
3	Buzzer	2	kevin
4	Multiple Choice	3	A
5	Single word	4	testing answer
6	5		

- Client side

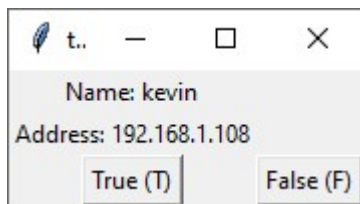
When you launch the client, you will be greeted with this window:



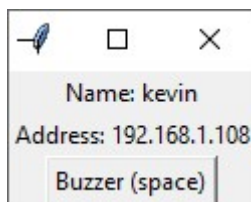
As shown, you type in your name in the entry box next of the Name: label and the server's address in the entry box next to the Address: label. Once connected to a server, while waiting for a question, the window will look like this:



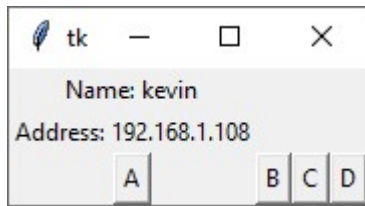
When you receive a question, depending on the question, the window will change to allow you to answer. True/False questions will show two buttons, True and False:



You can press these buttons by pressing the keys in the brackets. Buzzer questions will show a single button allowing you to press the buzzer:

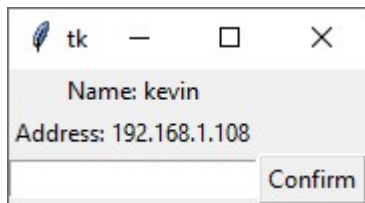


Multiple choice will show 4 buttons corresponding to A, B, C, and D:



A screenshot of a Tkinter window titled 'tk'. The window has a title bar with a feather icon, a minus sign, a maximize button, and a close button. The main content area displays 'Name: kevin' and 'Address: 192.168.1.108'. Below this, there are four buttons labeled 'A', 'B', 'C', and 'D' arranged horizontally.

Single word questions will show an entry box:



A screenshot of a Tkinter window titled 'tk'. The window has a title bar with a feather icon, a minus sign, a maximize button, and a close button. The main content area displays 'Name: kevin' and 'Address: 192.168.1.108'. Below this, there is a text entry box and a 'Confirm' button.

Once all clients have answered, and the server has selected a correct answer, the window will reset to the Waiting for question... window, until another question is asked or the server closes down.

Troubleshoot Guide

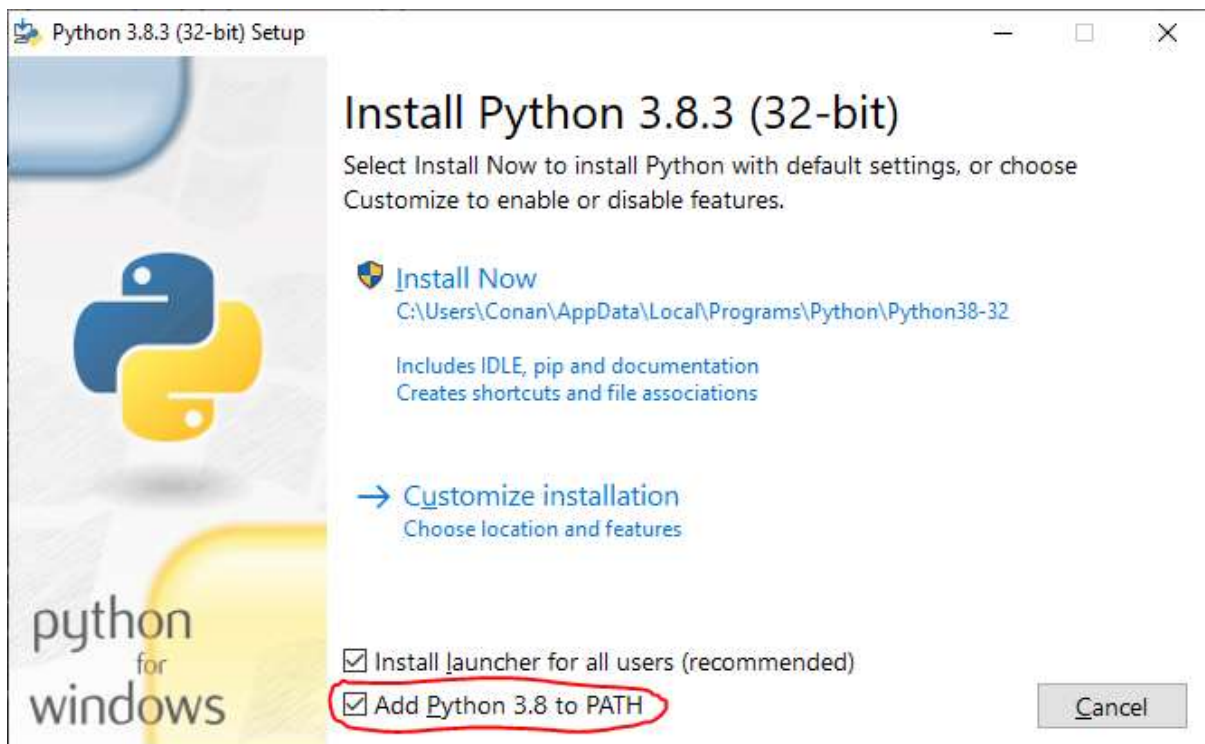
- Problems during installation

If there are any problems in installing the modules required for the program, or if the program just does not run, consider installing python and using the python files instead of the executable applications.

If the program still refuses to run the first time, open a terminal by either pressing the windows key and typing 'cmd', or opening iTerm in the launchpad. In the terminal, type:

`pip install matplotlib`

If there is a syntax error, re-install python, and make sure to follow the steps carefully, making sure to tick this box:



- Problems launching the server
 - 1) Open task manager, and make sure that there are no additional instances of A3Server running.
 - 2) If you are on a school or business network, ask the network technicians to open and give access to port 1234 on the server device.
 - 3) Re-open the get-pip file and A3Setup file to ensure you have installed the necessary modules.
- Problems connecting to the server

Make sure the address was typed in correctly, with no other characters or spaces included.

Make sure that the server hasn't reached its number of clients.

Make sure the server's device has given A3Server the permissions to accept incoming connections.

System Requirements

Everything was written in python 3.7, and python 3.7's minimum requirements are:

- Windows 7 or 10
- Mac OS X 10.11 or higher, 64-bit
- Linux: RHEL 6/7, 64-bit
- x86 64-bit CPU (Intel/AMD architecture)
- 4 GB RAM
- 5 GB free disk space

Source: <https://support.enthought.com/hc/en-us/articles/204273874-Enthought-Python-Minimum-Hardware-Requirements>