

Operation Manual

1 Editing/Opening application using Python

1. First you are going to need to go online to our <https://git.ece.iastate.edu/sd/sddec22-09>



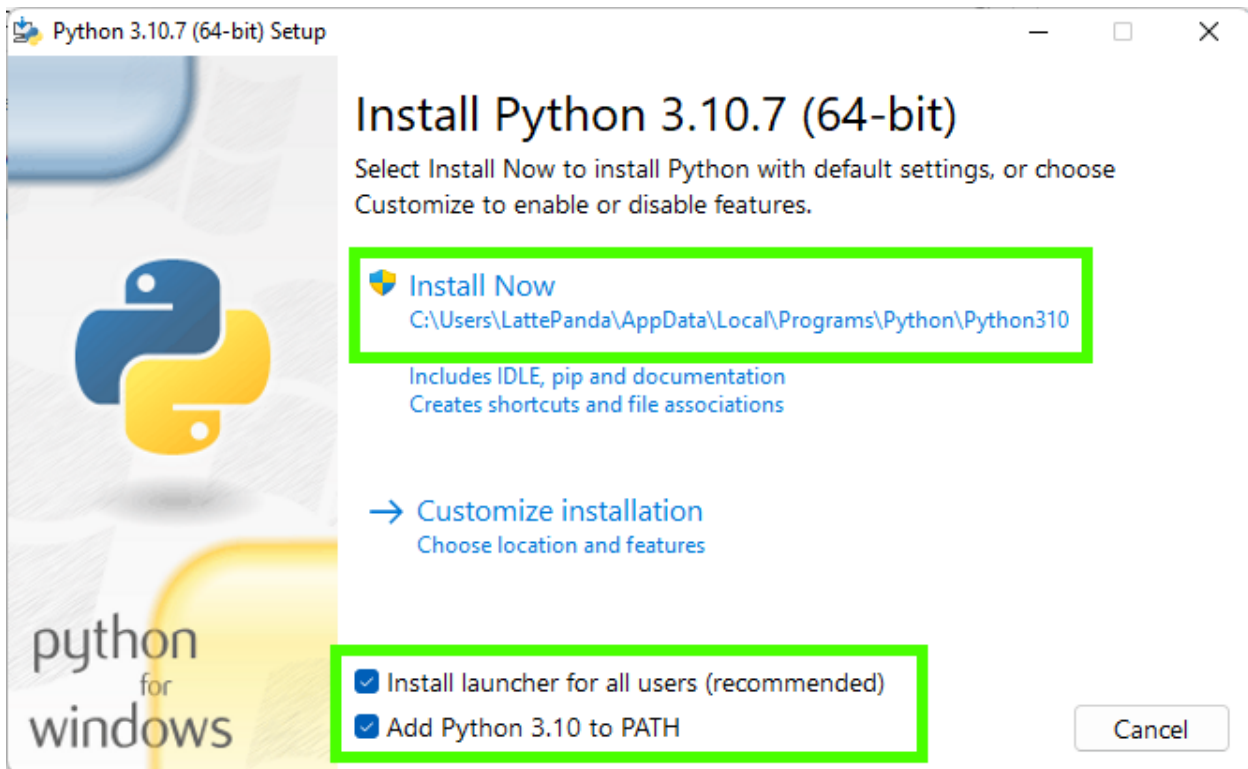
- a. Click this icon to download the zip file that will contain all of the project source code of the application.
 - b. The latest version of the application is **mainbuild1.5.py**
 - c. You can run this application if you have python installed on your PC
2. Check if you have python installed on your computer
 - a. Windows
 - i. Open Command Prompt > Type **Python**, or **py** > Hit Enter If Python is installed it will show the version details; otherwise it will open the Python page oin the Microsoft Store for download.
 - b. Mac
 - i. Python is most likely already installed on your system. To check the installation, go to Applications>Utilities and click on Terminal.
 3. Install Python on Mac (Skip to Step 5 if installed)
 - a. Check for the installed version of python with the command `python --version`
 - b. First Homebrew needs to be installed this will make it easy to install the most recent version of Python start by installing Apple's xcode tools
 - i. `xcode-select --install`
 - c. Install Homebrew
 - i. `ruby -e "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/master/install)"`
 - ii. You can run brew doctor to see if the installation worked correctly

```
$ brew doctor
Your system is ready to brew.
```
 - d. Now you can use brew to install python packages. Start with installing Python itself.
 - i. `brew install python3`
 - e. Finally verify that Python installed correctly

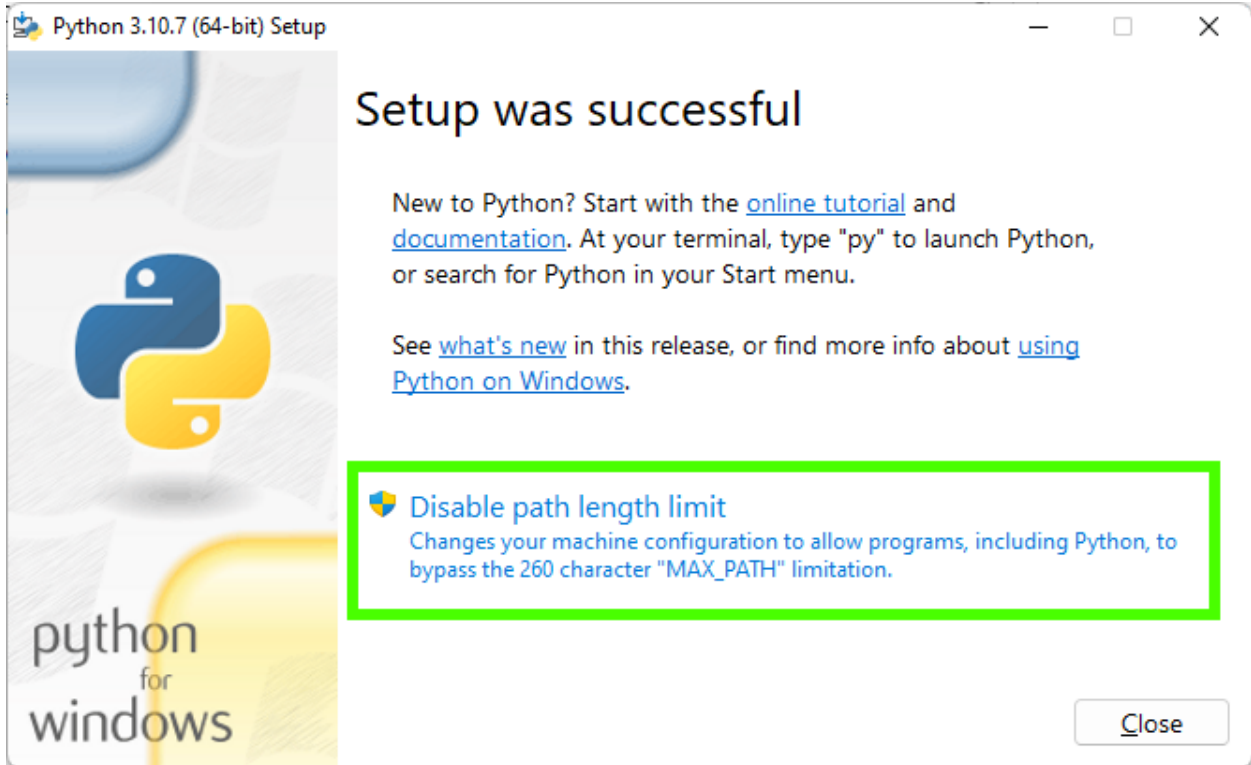
i. `python3 --version`

```
$ python3 --version
Python 3.5.0
```

4. Install Python on Windows (skip to Step 5 if already installed)
 - a. Go to the Python download page and download the Python Windows Executable
 - i. <https://www.python.org/downloads/>
 - b. Double click on the installer and click on “Install Now” to begin the installation.
 - i. Adding python to the path will enable us to use the Python interpreter from any part of the filesystem.



- c. After the installation is complete, make sure **Disable Path Length Limit** is checked and then Close.
 - i. Disabling the path length limit means we can use more than 260 characters in a file path.



- d. Click Close to end the installation.
- e. Verify that python installed correctly
 - i. Go to the Command Prompt and type in `Python -version`
5. After you have python installed you should be able to run the specific version of our application.
6. We used a few python modules that you will need to install using PIP
 - a. Check if PIP is already installed by opening a command prompt and typing `pip -v` and pressing enter if installed skip to step 7
 - b. Install PIP
 - i. `python get-pip.py`
 - c. You will now need to install a series of modules using pip run these commands.
 - i. `pip install tkinter`
 - ii. `pip install tkinter.ttk`
 - iii. `pip install pickle`
 - iv. `pip install numpy`
 - v. `pip install pandas`
 - vi. `pip install dataclasses`
 - vii. `pip install os`
7. You should now be able to run any version of the mainbuild that you would like.
8. Our application is open source so you may improve upon it as you wish.

2 Running and Using our application

1. Windows OS

a. First you need to run the application ClassScheduler.exe

The screenshot shows the 'Scheduling app' window. On the left is a 'Classes' tree view with categories like BME, C, CE, CESE, CEX, CS, CSW, CW, CX, E, EC, ECS, ECW, EM, EX, S, SC, WCEX, and WCS. The main area is a grid with columns for days (M, T, W, T, F, S, S) and time slots from 8:00am to 1:30pm. Each cell contains a class ID or is empty. On the right, there's a panel for editing a class, with fields for Name, Group, Times, Lab times, and Notes, along with 'add', 'remove', and 'Locked' buttons.

b. File>Browse a CSV File

- i. Browse the CSV file that you would like to load up (be sure the CSV file is formatted equivalent to our template)
- ii. Click on apply on the bottom right and then you will see the class schedule displayed.

c. You will be able to see a list of classes in the left frame.

- i. If you click on a specific class you will be able to see the attributes for that class in the right frame.

This screenshot shows the same application with class 'C185' selected in the left pane. The right pane now displays the details for C185, including its name, group, times (T 3:00pm, T 3:30pm, T 1:00pm, T 1:30pm, Th 3:00pm, Th 3:30pm, Th 1:00pm, Th 1:30pm), lab times, and notes. The 'apply' button is visible at the bottom right.

- d. Times can be edited by using the buttons in the right frame.
- e. File>Display Class Library
 - i. This will bring up an application that will allow you to open other csv files one of interest might be the CSV we created with details about all of the classes
 - ii. There is a text box at the top of the new window that should allow you to filter results within the CSV file.
- f. File>Save As
 - i. This will save the current schedule as a .dat file which can then be loaded back into the application with File>Open
- g. Help>About
 - i. This will bring up the Authors of the program as well as a link to our website which will have more information.