Installing Python on Windows

Below you will get detailed guide for installing Python on your windows OS. Most of the time, between the time the author writes the instructions and the time you try them out, months have passed—if you are lucky. One version change, and things might work in the way they are described in the book.

Setting up the Python interpreter

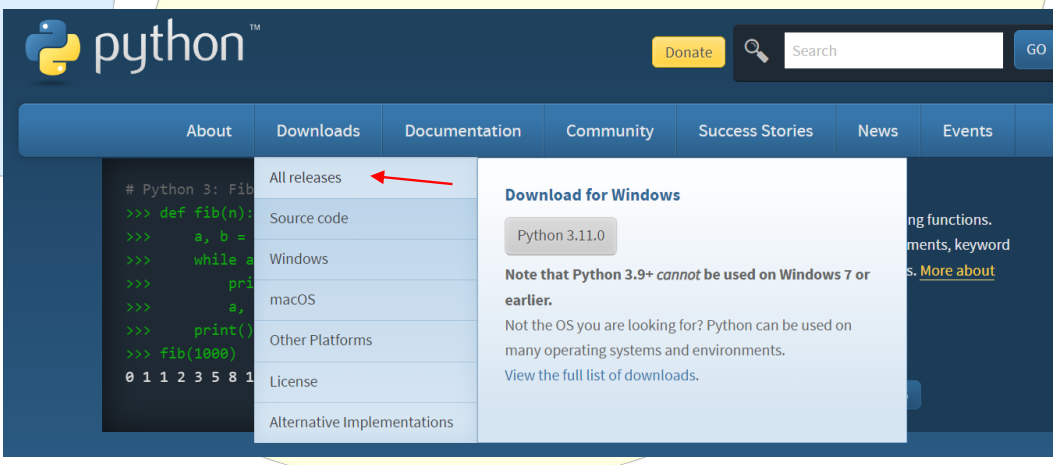
First, let us talk about your OS. Python is fully integrated and, most likely, already installed in almost every Linux distribution. If you have a Mac, it is likely that Python is already there as well (although possibly only Python 2.7); if you are using Windows, however, you probably need to install it.

Getting Python and the libraries you need up and running requires a bit of handiwork. Linux and macOS seem to be the most user-friendly for Python programmers; Windows, on the other hand, may require a bit more effort.

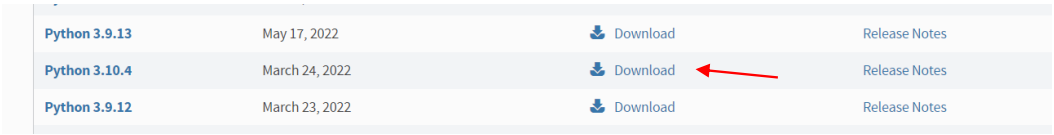
Steps to install python:

1. The place you want to start is the official Python website: https://www.python.org. This website hosts the official Python documentation and many other resources that you will find very useful.\

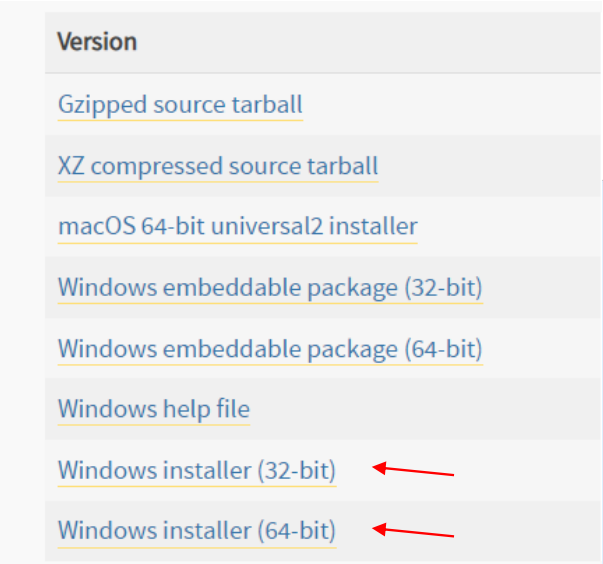
2. Click on the all-releases section.



3. Click on **Download** of **Python 3.10.4.**



4. Install the **32- or 64-bit** version depending upon your windows OS.



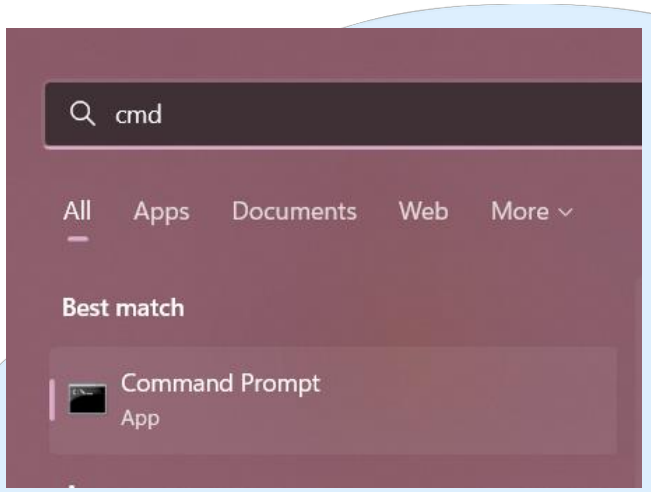
5. After downloading run the setup and follow the instructions below.

6. Make sure add to path is selected and then click on **Install Now**. The setup will begin installing python on windows OS.

On **MacOS**, python is already installed by default.

Running Python on Windows

To open the console in Windows, just press the **Windows** key and search for **cmd**.



Click on Command Prompt and run the following code.

```
C:\Users\aniru>python --version
Python 3.10.4
```

If **Python 3.10.4** comes as the output, that means the installation of Python on your OS is successful.

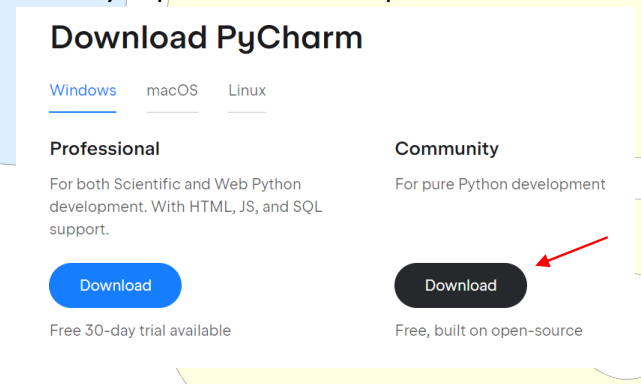
Installing PyCharm IDE on Windows

An **integrated development environment (IDE)** is a software application that helps programmers develop software code efficiently. We will be writing our Python code in **PyCharm** so we can code easily, also it is beginner friendly.

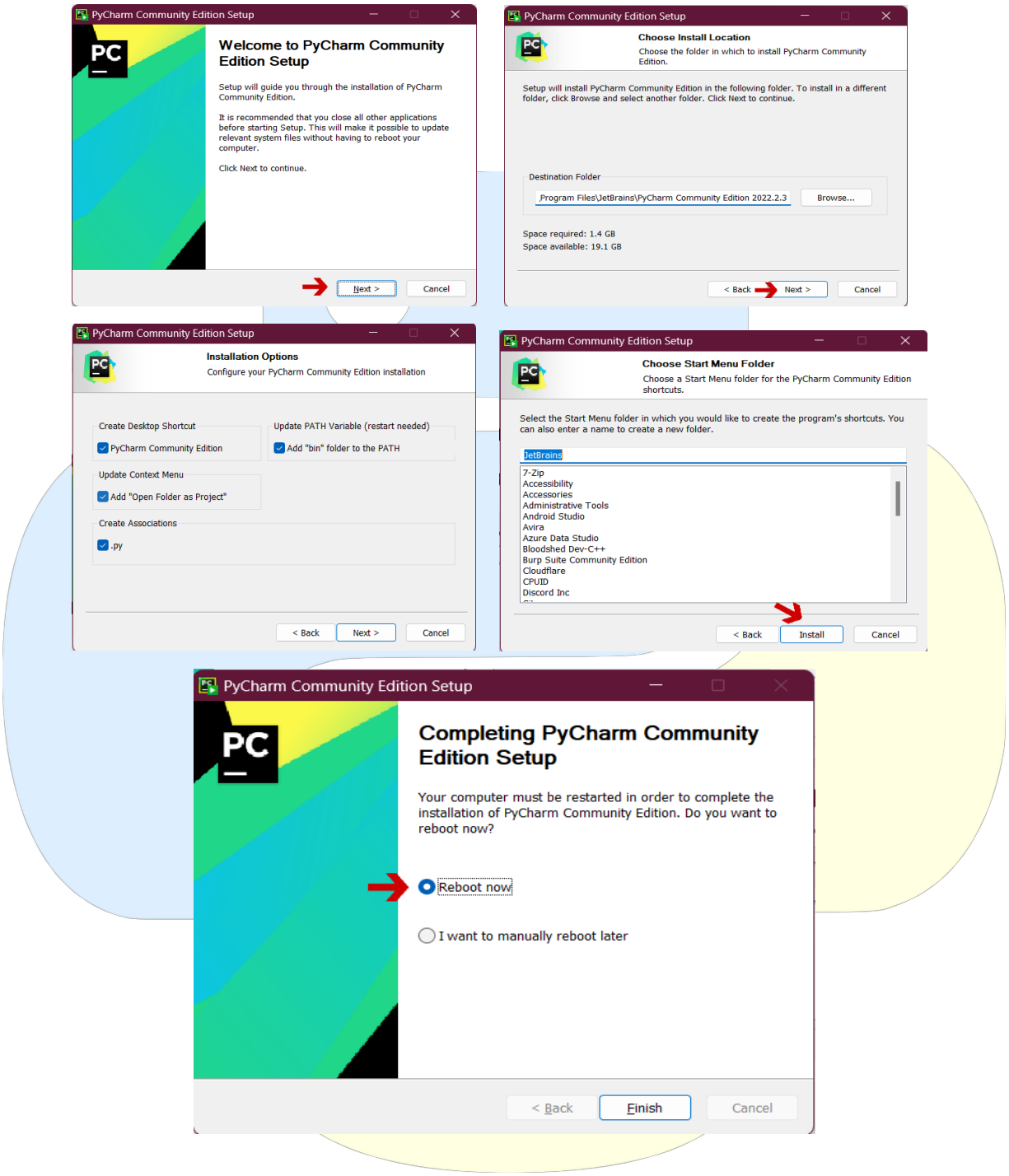
Follow the steps below to install **PyCharm** on Windows OS:

1. Visit https://www.jetbrains.com/pycharm/, the official website of **Jet Brains** and we will be installing PyCharm from this website. Click the **Download** button.

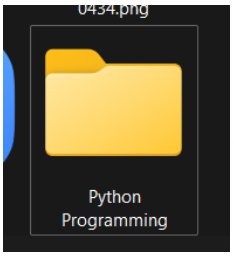
2. Go for the **Community Build**. The **Professional Build** is payable and is used by experienced developers.



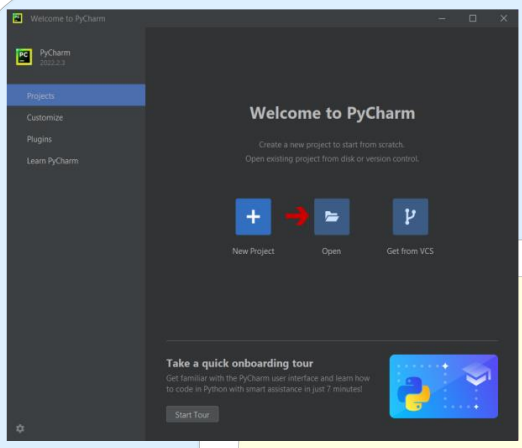
3. Follow the pictures below to continue with the process of installation of PyCharm on Windows OS.


PyCharm Community Edition Setup
Welcome to PyCharm Community Edition Setup
Setup will guide you through the installation of PyCharm Community Edition.
It is recommended that you close all other applications before starting Setup. This will make it possible to update relevant system files without having to reboot your computer.
Click Next to continue.
Next >
Cancel
PyCharm Community Edition Setup
Choose Install Location
Choose the folder in which to install PyCharm Community Edition.
Setup will install PyCharm Community Edition in the following folder. To install in a different folder, click Browse and select another folder. Click Next to continue.
Destination Folder
C:\Program Files\JetBrains\PyCharm Community Edition 2022.2.3
Browse...
Space required: 1.4 GB
Space available: 19.1 GB
< Back
Next >
Cancel
PyCharm Community Edition Setup
Installation Options
Configure your PyCharm Community Edition installation
Create Desktop Shortcut
PyCharm Community Edition
Update PATH Variable (restart needed)
Add "bin" folder to the PATH
Update Context Menu
Add "Open Folder as Project"
Create Associations
.py
< Back
Next >
Cancel
PyCharm Community Edition Setup
Choose Start Menu Folder
Choose a Start Menu folder for the PyCharm Community Edition shortcuts.
Select the Start Menu folder in which you would like to create the program's shortcuts. You can also enter a name to create a new folder.
JetBrains
7-Zip
Accessibility
Accessories
Administrative Tools
Android Studio
Avira
Azure Data Studio
Bloodshed Dev-C++
Burp Suite Community Edition
Cloudflare
CPUID
Discord Inc
< Back
Install
Cancel
PyCharm Community Edition Setup
Completing PyCharm Community Edition Setup
Your computer must be restarted in order to complete the installation of PyCharm Community Edition. Do you want to reboot now?
Reboot now
I want to manually reboot later
< Back
Finish
Cancel

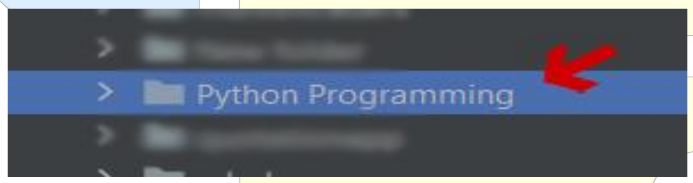
After rebooting your Windows OS. Create a new folder anywhere on your system. For this whole book, we are creating a new folder named **Python Programming** on our Desktop. You can choose anywhere you want as per your choice.



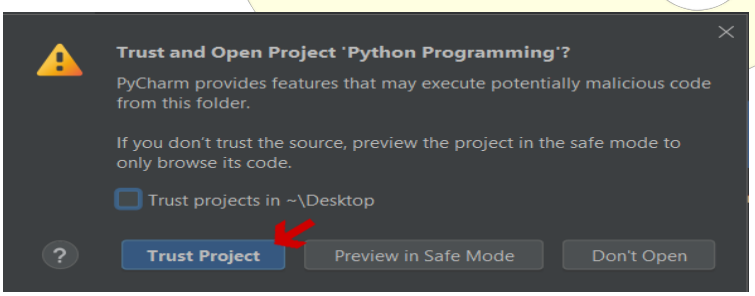
It is time to open **PyCharm** and start our coding experience. Try opening the application and follow the instructions below.



Select your newly created folder and click **OK**.

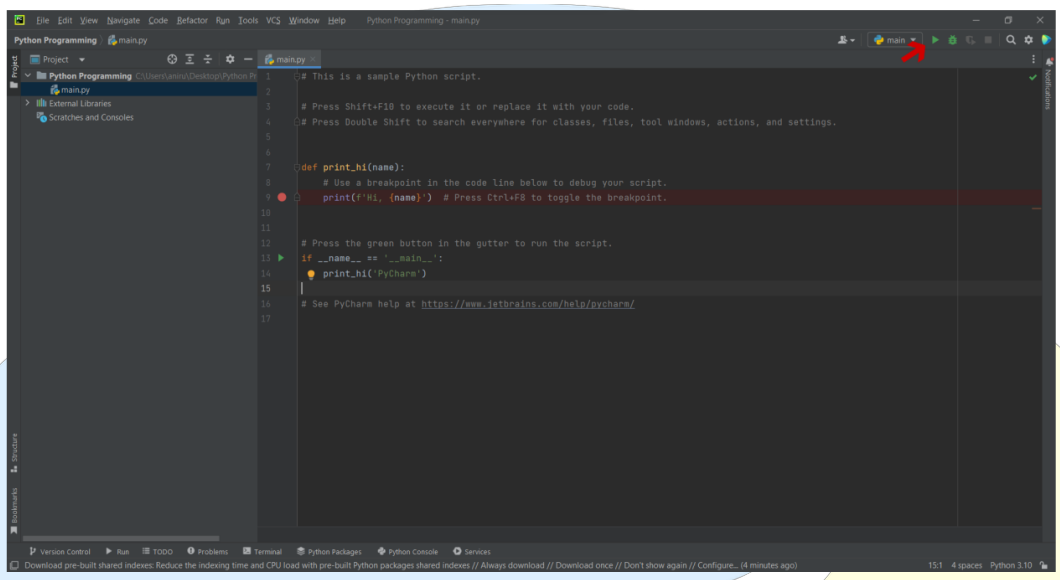


It will ask you if you trust the project. Click on **Trust Project**.

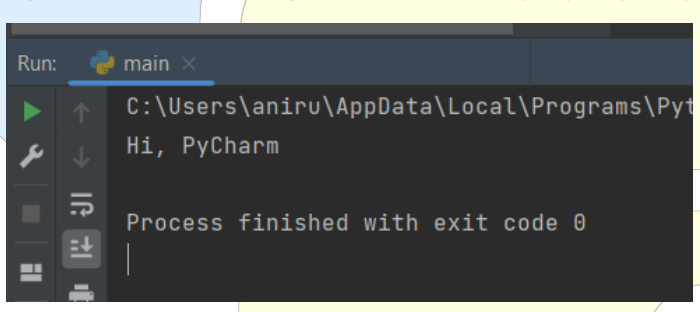


Once **PyCharm** gets opened, it will take some time to get stable.

There will be a dummy code created with a **main.py** file automatically created for you at the start. Just ignore the code and try to run the file by pressing **CTRL+SHIFT+F10** or by pressing the play button shown below.



After running, there will be dummy output shown below, meaning that both **PyCharm** as well as **Python** is installed properly on your Windows OS.



Installing Python on MacOS

MacOS comes with Python pre-installed. But it is Python Version 2.7, which is now deprecated (abandoned by the Python developer community).

The entire Python community has now moved on to using Python 3.x (the current version as of writing this is 3.9). And Python 4.x will be out soon, but it will be completely backward compatible.

If you try to run Python from your MacOS terminal, you will even see this warning.

To install Python, we need to install **BREW** first on MacOS.

To do so, type the following command in terminal. To open terminal, go to **Finder** -> **Search for terminal.**

/bin/bash -c "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh)"

```
Gautams-MacBook-Air:homebrewinstall gomzi$ /bin/bash -c "$(curl -fsSL https://raw.githubusercontent.com/Homebr
ew/install/HEAD/install.sh)"
==> Checking for `sudo` access (which may request your password)...
Password:
```

Your terminal will ask for Super User-level access. You will need to type your password to run this command. This is the same password you type when you log into your Mac. Type it and hit enter.

HomeBrew will ask if you want to continue, press **ENTER**

```
==> This script will install:
/usr/local/bin/brew
/usr/local/share/doc/homebrew
/usr/local/share/man/man1/brew.1
/usr/local/share/zsh/site-functions/_brew
/usr/local/etc/bash_completion.d/brew
/usr/local/Homebrew
==> The following existing directories will be made group writable:
/usr/local/bin
==> The following existing directories will have their owner set to gomzi:
/usr/local/bin
==> The following existing directories will have their group set to admin:
/usr/local/bin
==> The following new directories will be created:
/usr/local/etc
/usr/local/include
/usr/local/lib
/usr/local/sbin
/usr/local/share
/usr/local/var
/usr/local/opt
/usr/local/share/zsh
/usr/local/share/zsh/site-functions
/usr/local/var/homebrew
/usr/local/var/homebrew/linked
/usr/local/Cellar
/usr/local/Caskroom
/usr/local/Frameworks
==> The Xcode Command Line Tools will be installed.

Press RETURN/ENTER to continue or any other key to abort:
```

It will take some time to install homebrew. After it is done, your screen will look something like this.

```
==> Downloading https://ghcr.io/v2/homebrew/core/ca-certificates/manifests/2022-10-11
######################################################################## 100.0%
==> Downloading https://ghcr.io/v2/homebrew/core/ca-certificates/blobs/sha256:1b264e579e31b3041a87ff91f09d5f7cc0d51fea1
==> Downloading from https://pkg-containers.githubusercontent.com/ghcr1/blobs/sha256:1b264e579e31b3041a87ff91f09d5f7cc0
######################################################################## 100.0%
==> Pouring ca-certificates--2022-10-11.all.bottle.tar.gz
==> Regenerating CA certificate bundle from keychain, this may take a while...
🍺  /usr/local/Cellar/ca-certificates/2022-10-11: 3 files, 225.5KB
==> Running `brew cleanup ca-certificates`...
Disable this behaviour by setting HOMEBREW_NO_INSTALL_CLEANUP.
Hide these hints with HOMEBREW_NO_ENV_HINTS (see `man brew`).
==> Installation successful!

==> Homebrew has enabled anonymous aggregate formulae and cask analytics.
Read the analytics documentation (and how to opt-out) here:
  https://docs.brew.sh/Analytics
No analytics data has been sent yet (nor will any be during this install run).

==> Homebrew is run entirely by unpaid volunteers. Please consider donating:
  https://github.com/Homebrew/brew#donations

==> Next steps:
- Run brew help to get started
- Further documentation:
    https://docs.brew.sh

Gautams-MacBook-Air:homebrewinstall gomzi$
```

Restart your **teminal,** and type the following command to install Python.

brew install python

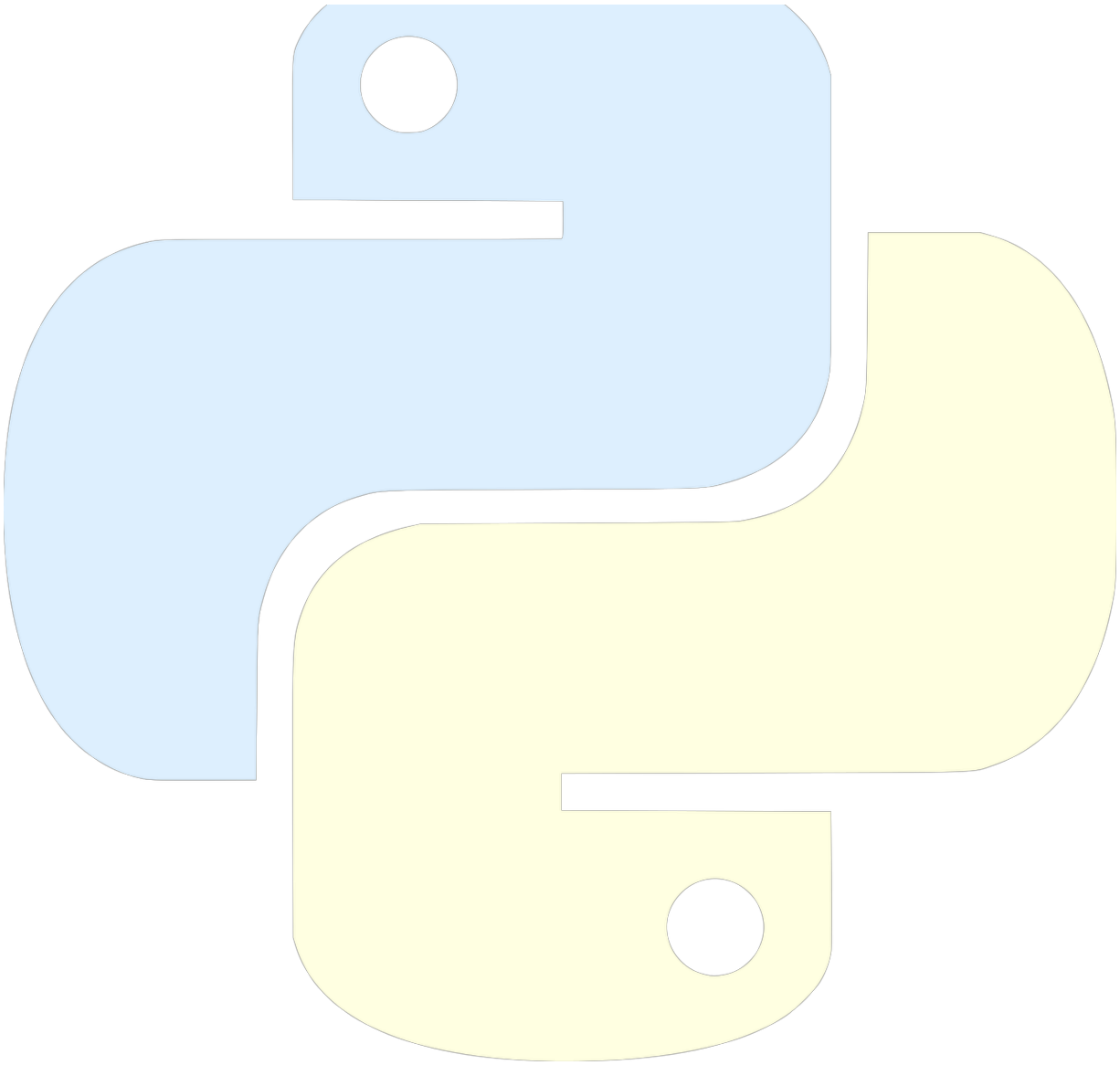
```
Gautams-MacBook-Air:~ gomzi$
Gautams-MacBook-Air:~ gomzi$ brew install python
```

A set of instructions will be operated automatically to install python.

```
==> Summary
🍺  /usr/local/Cellar/python@3.10/3.10.8: 7,982 files, 120.4MB, built in 7 minutes 54 seconds
==> Running `brew cleanup python@3.10`...
Disable this behaviour by setting HOMEBREW_NO_INSTALL_CLEANUP.
Hide these hints with HOMEBREW_NO_ENV_HINTS (see `man brew`).
==> Caveats
==> python@3.10
Python has been installed as
  /usr/local/bin/python3

Unversioned symlinks `python`, `python-config`, `pip` etc. pointing to
`python3`, `python3-config`, `pip3` etc., respectively, have been installed into
  /usr/local/opt/python@3.10/libexec/bin

You can install Python packages with
  pip3 install <package>
They will install into the site-package directory
  /usr/local/lib/python3.10/site-packages

tkinter is no longer included with this formula, but it is available separately:
  brew install python-tk@3.10

See: https://docs.brew.sh/Homebrew-and-Python
Gautams-MacBook-Air:~ gomzi$ python3
Python 3.10.8 (main, Nov  2 2022, 09:16:42) [Clang 10.0.1 (clang-1001.0.46.4)] on darwin
Type "help", "copyright", "credits" or "license" for more information.
>>> exit
Use exit() or Ctrl-D (i.e. EOF) to exit
>>> exit()
Gautams-MacBook-Air:~ gomzi$
```

After the python installation is successful. You can check if python is installed properly by typing the following command.

```
Gautams-MacBook-Air:~ gomzi$ python3 --version
Python 3.10.8
Gautams-MacBook-Air:~ gomzi$
```



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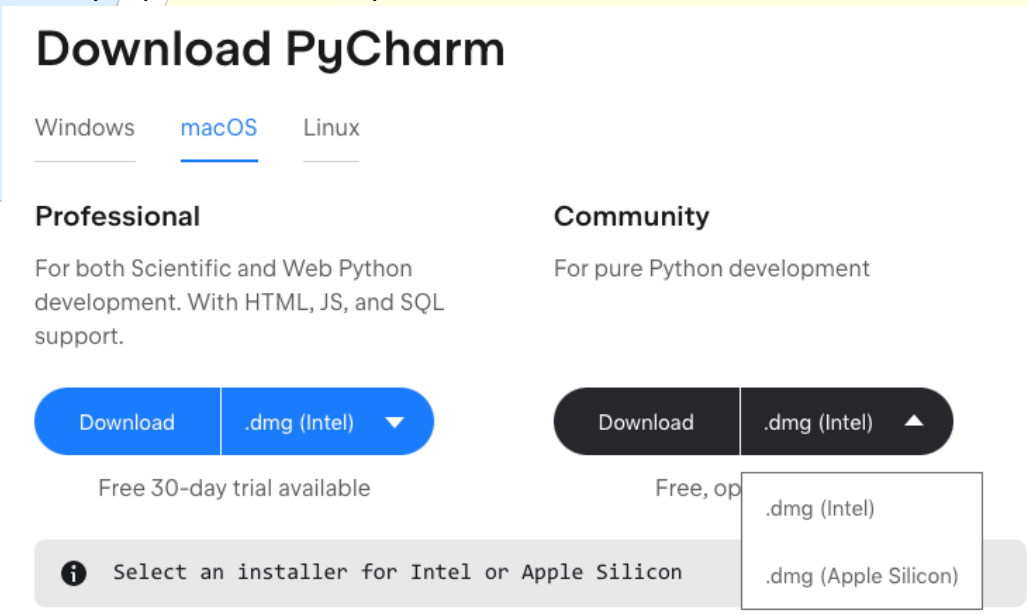
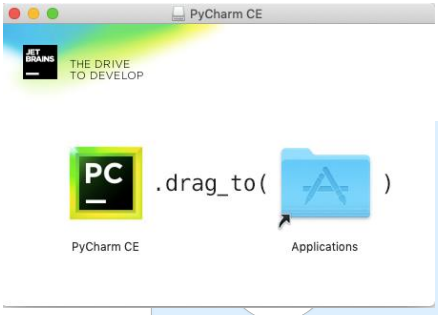
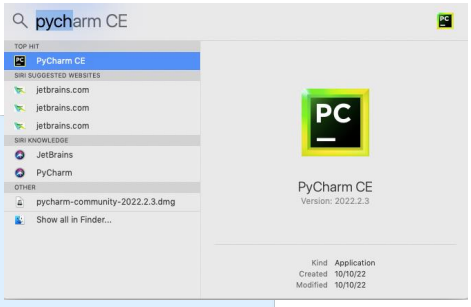
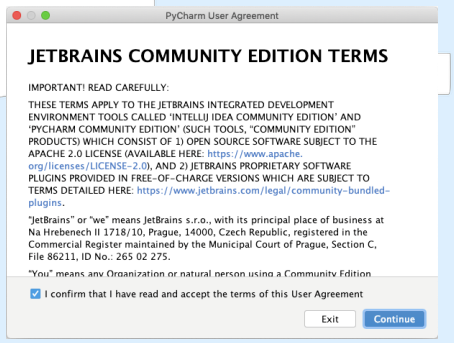
2. Go for the Community Build. The Professional Build is payable and is used by experienced developers.



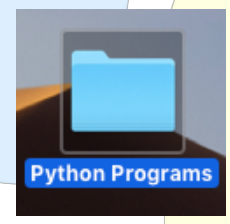
3. Follow the pictures below to continue with the process of installation of PyCharm on Mac OS.



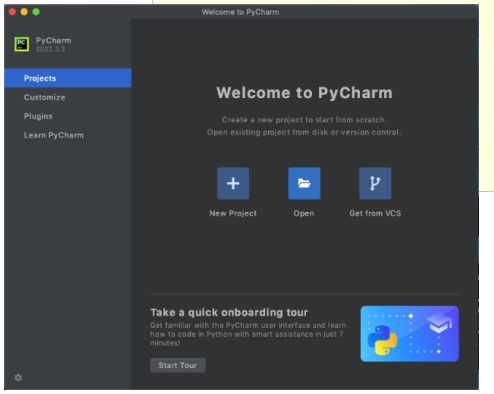




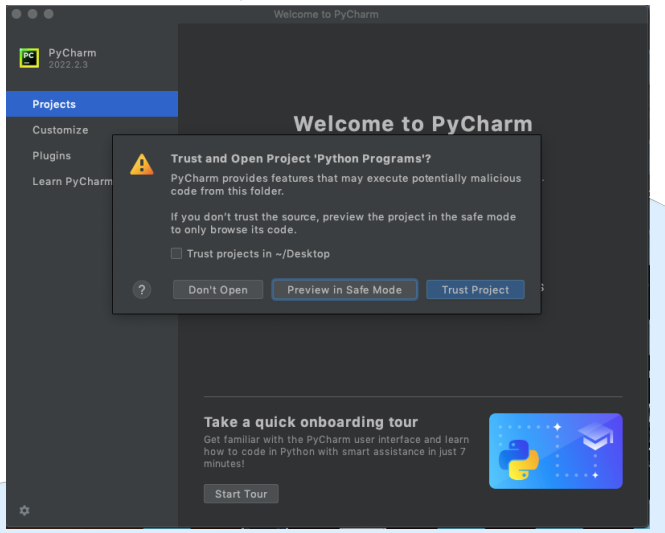
4. Create a new folder anywhere on your system. For this whole book, we are creating a new folder named Python Programming on our Desktop. You can choose anywhere you want as per your choice.



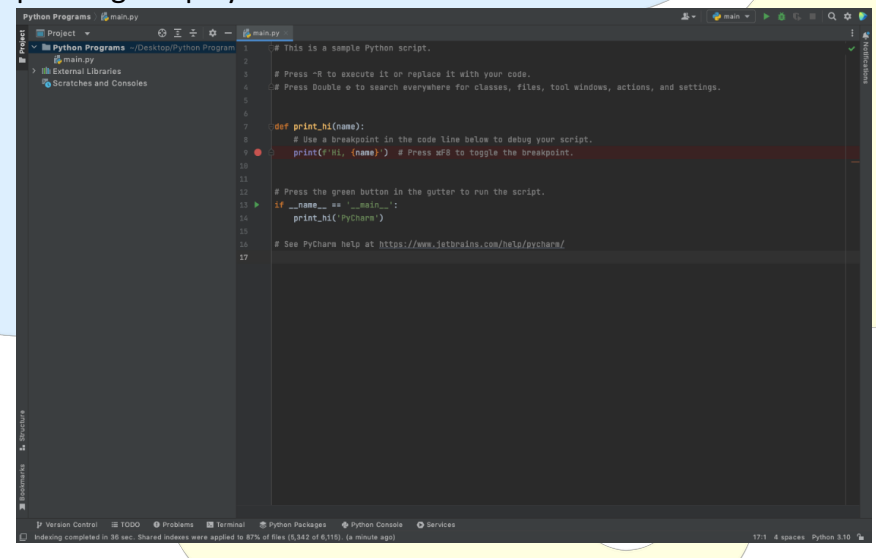
5. Click on **Open** and select your folder.



6. Click on **Trust Project.**



7. Once PyCharm gets opened, it will take some time to get stable. There will be a dummy code created with a main.py file automatically created for you at the start. Just ignore the code and try to run the file by pressing the play button shown below.

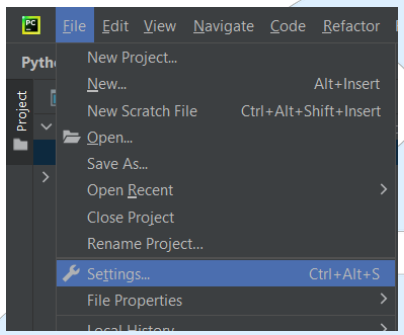


8. After running, there will be dummy output, meaning that both PyCharm as well as Python is installed properly on your MacOS.

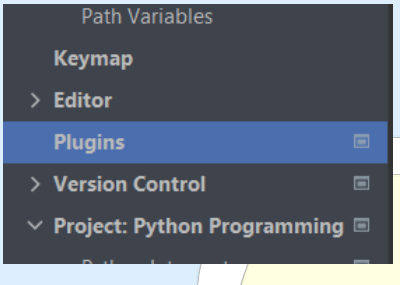
Changing PyCharm Theme & Settings

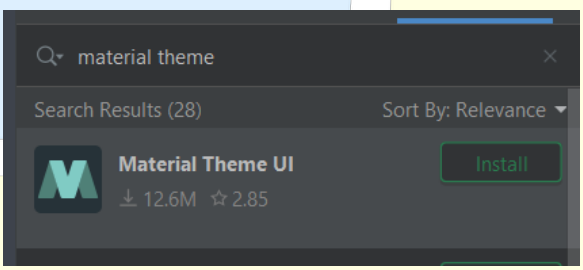
It is recommended to follow the steps below to change the Theme and some basic settings of PyCharm so we can code better and efficiently.

Go to **Settings.**

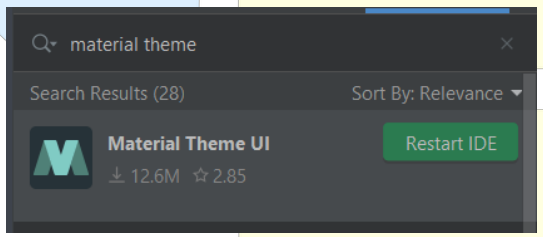


Go to **Plugins** section and search of **material theme** and install it**.**

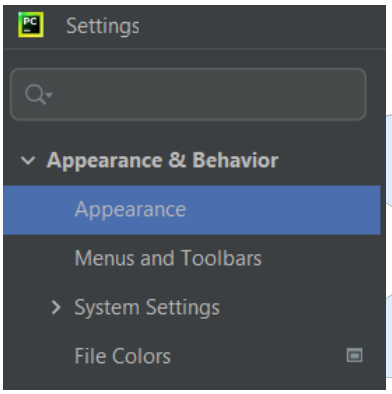




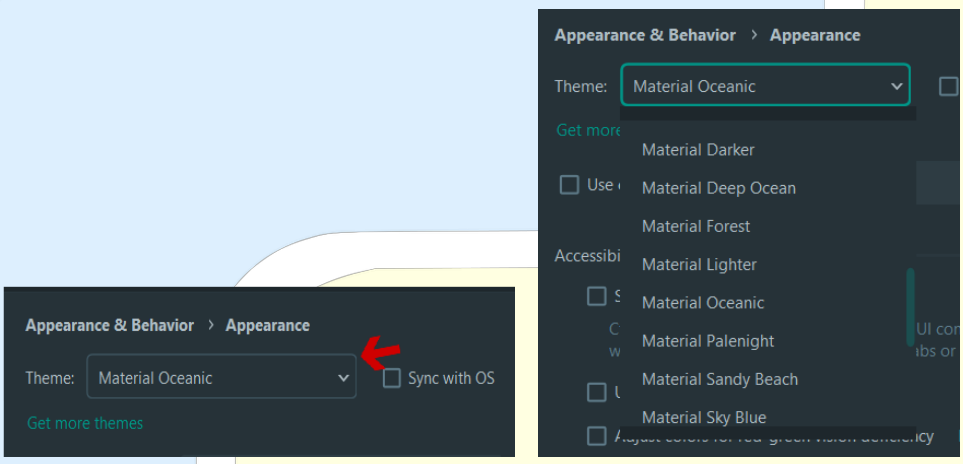
After installing restart your IDE by clicking **Restart IDE.**



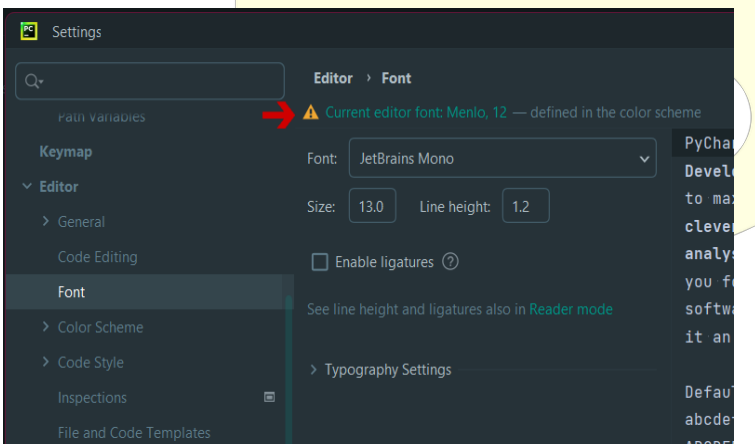
Your IDE will now be opened with new theme. To change the theme according to your preference. Go to **Settings** -> **Appearance & Behavior** -> **Appearance.**



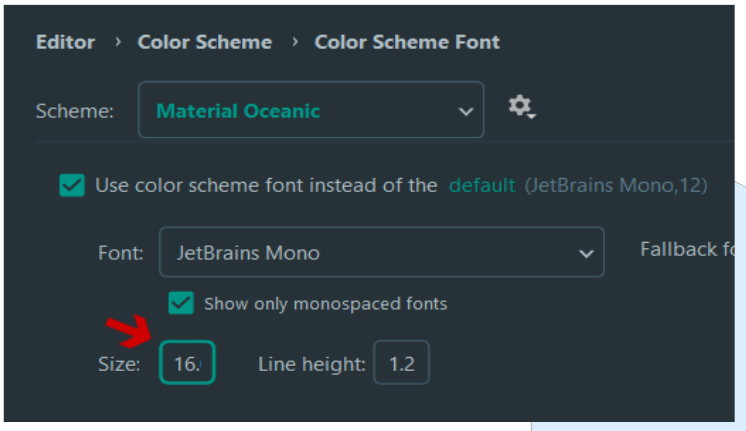
Select your theme as per your choice and color.



To change font size, go to **Settings** -> **Editor** -> **Font** -> **Click on Current Editor.**

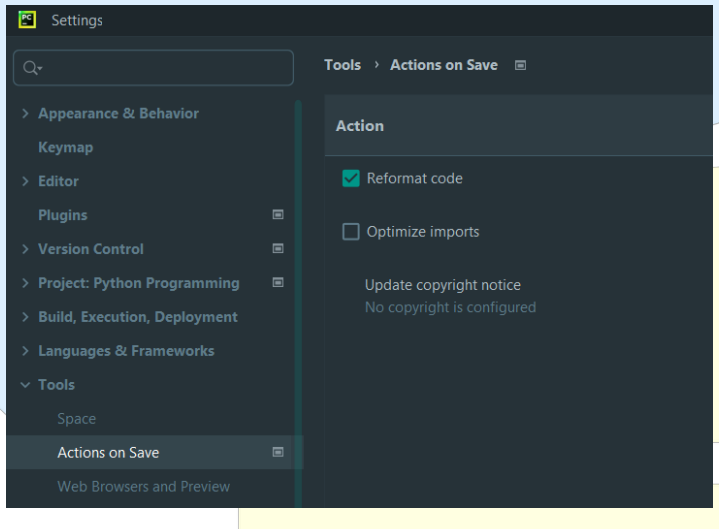


Change the font size and line height according to your preference.



One more setting is to format code so it is easy to understand, whenever we save our file. For that go to **Settings** -> **Tools** -> **Actions on Save.**

Select the **Reformat Code** option and click on apply.



That is, it. We are done with our PyCharm settings and we are now good to go.