

Chapter-2

INSTALLING PYTHON

Guide to Install Python on Windows

Welcome to the world of Python, young coders! In this chapter, we'll take our first exciting step towards becoming Python masters. We'll learn how to install Python on your Windows computer. We'll also meet IDLE, a special tool that will help us create amazing programs. With simple and clear instructions, we'll guide you through the installation process, making it super easy for you to get started.

Ahoy, budding coders!

Before we jump into coding, we need the right tools on our computer. Don't worry, I'll be your friendly guide, showing you how to install Python step by step. Get ready to unlock the amazing world of coding with me!"

INSTALLING PYTHON

Windows operating systems don't come with the Python language by default.

But fear not! We can fetch it ourselves and make our coding dreams come true. **Just follow below steps.**

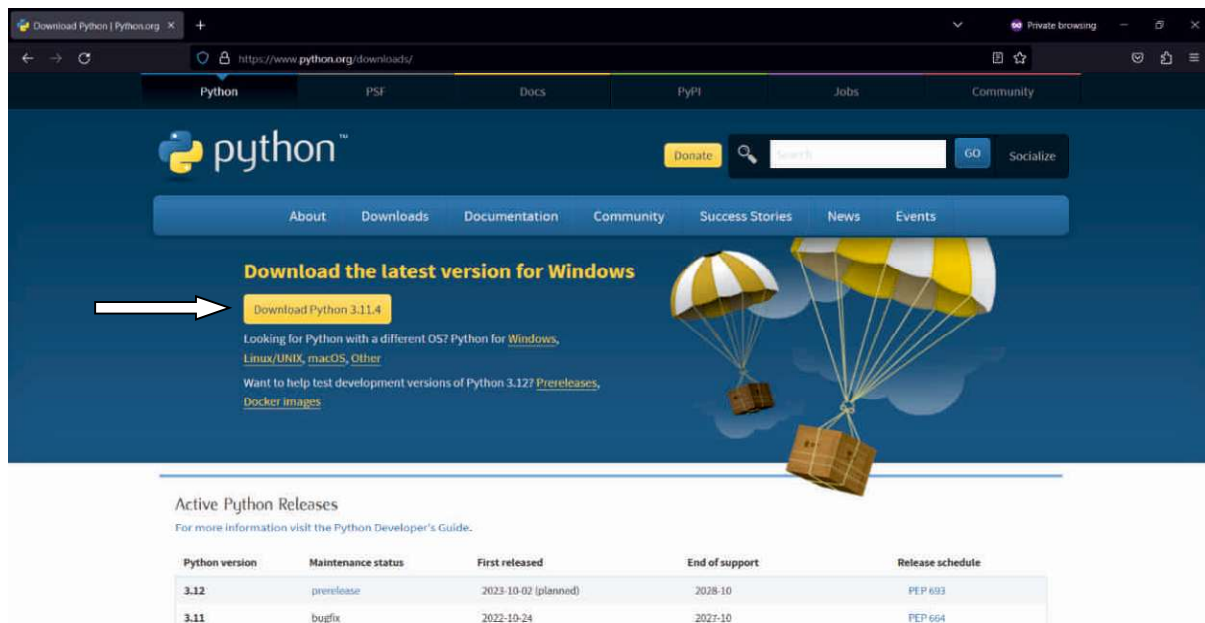
Step 1: On your windows computer, open any web browser like Google Chrome or Mozilla Firefox.

Step 2: In the address bar, type "<https://www.python.org/downloads/>" URL to go to the official Python website's Downloads section.

Step 3: Once you open the website it will automatically know the type (32 bit or 64 bit) of computer and your operating system (Windows or Linux), The DOWNLOAD button will show you the correct version of Python to install!

Alternatively you can also choose the version you want to install.

Go ahead and [Click](#) on **DOWNLOAD**



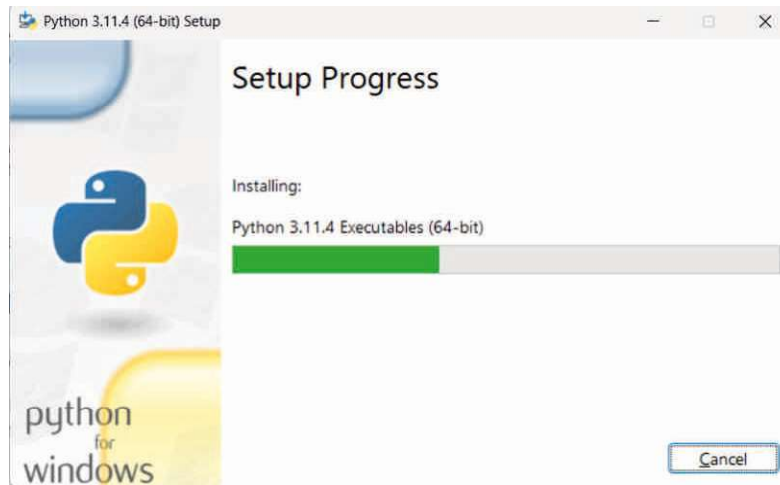
Step 4: Clicking on Download should start downloading python executable and will go to your download location.

Step 5: Go to your download location and find the python executable your just downloaded. Double click on it. When you do, a window should pop-up an Install Window.

Step 6: Make sure to select “**Add python.exe to PATH**” checkbox.



Step 7: Click **Install Now**. This should begin to install python on your windows system. You should get a new pop-up which shows the installation progress.



Step 8: Wait for the install to finish and the green bar to be full. Once it is done, the final screen should appear, saying that your installation was successful.



Hooray, you did it! You've successfully installed Python.

Give yourself a pat on the back.

✚ Just click the **CLOSE** button, and you're all set to sail into the world of Python on Windows!

USING IDLE

When we install Python, it comes with a cool program called **IDLE**.

IDLE stands for **Integrated Development and Learning Environment** (quite a long name!).

IDLE is like a special writing pad just for Python. It helps us write, fix, and run our Python code.

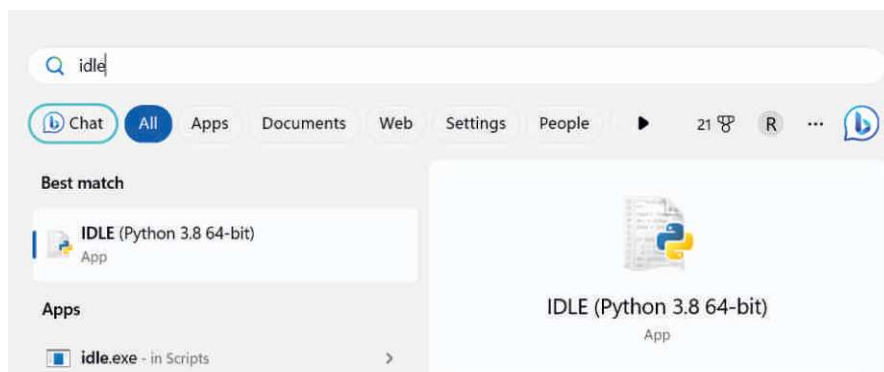
Think of it as your own coding superpower tool! But remember, to start coding in Python, we need to open IDLE and not just any regular file. Let's dive into the world of IDLE and discover how it makes coding fun and easy!

ON Your Windows System

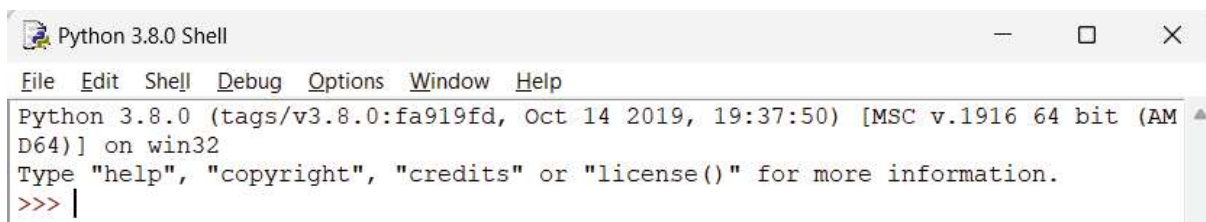
Step 1: Click the Windows Start menu.



Step 2: Start typing “idle”, then select the search result IDLE.



Step 3: This should open a new windows pop-up which is “Python Shell”



Wow, look at you go! You've successfully opened IDLE on your Windows computer, and you're all set to begin your Python coding.

EXPLORING IDLE

There are two ways you can use IDLE environment

1. **Interactive Shell Mode:** Engage in Real-Time Coding!
2. **File-Based Scripting Mode:** Create and Run Your Python Code!

Interactive Shell Mode:

In the last exercise you opened up IDLE environment in your windows system. Whenever you open up the IDLE program on your computer, you will always be brought to the *shell* first.

In this mode, you can write your code directly in the Python shell within IDLE. It's like having a real-time conversation with Python!

You can type one line of code at a time and instantly see the results. It's perfect for quick experiments and trying out new ideas.

For Example: Type the following code in the IDLE shell and press Enter

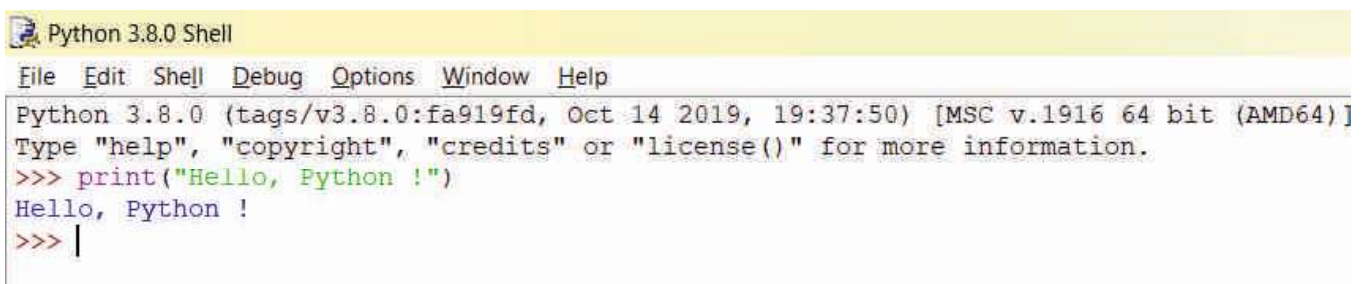
Code

```
print("Hello, Python!")
```

Output

```
Hello, Python!
```

IDLE Code Snippet



```
Python 3.8.0 Shell
File Edit Shell Debug Options Window Help
Python 3.8.0 (tags/v3.8.0:fa919fd, Oct 14 2019, 19:37:50) [MSC v.1916 64 bit (AMD64)]
Type "help", "copyright", "credits" or "license()" for more information.
>>> print("Hello, Python !")
Hello, Python !
>>> |
```

File-Based Scripting Mode:

When we're creating our own exciting software, we often need to write lots of lines of code to make everything work smoothly.

In those cases, it's more convenient to save our code in a special file called a Python file. This way, we can keep all our code organized and easily accessible.

Once we've written our code in the Python file, we can open it in IDLE, the friendly coding environment we're using.

IDLE acts as a magical portal that brings our code to life. We simply tell IDLE to run our Python file, and it executes our instructions, showcasing the amazing things our program can do!

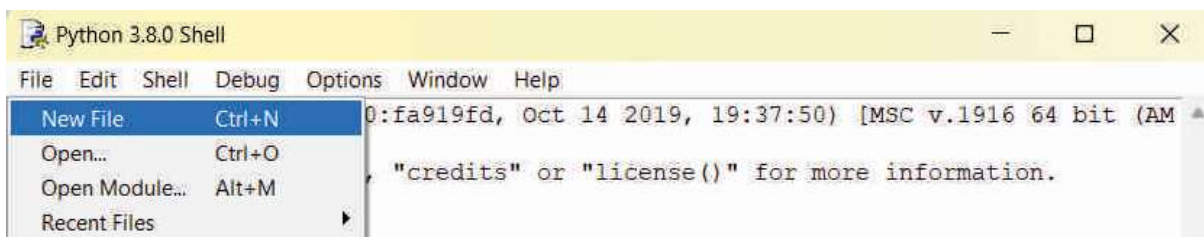
We will understand this more by using below example.

- In this example we will write a below code in a file called "name.py" and
- Run it later using IDLE

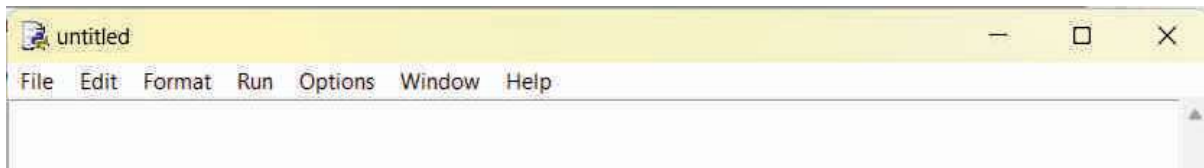
```
name.py  
  
name = input("What's your name? ")  
print("Hello,", name, "!")
```

Follow bellow mentioned steps to open IDLE and Write & Run your Code.

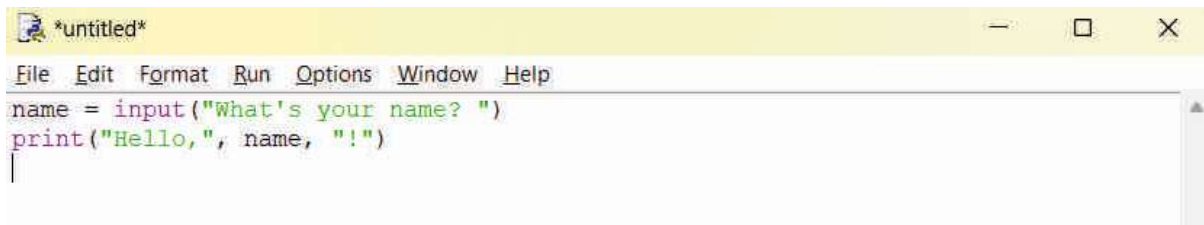
Step 1: Open a new file in IDLE by clicking on "File" and then "New File."



Step 2: This should open a new plain text file with no name or in other words untitled

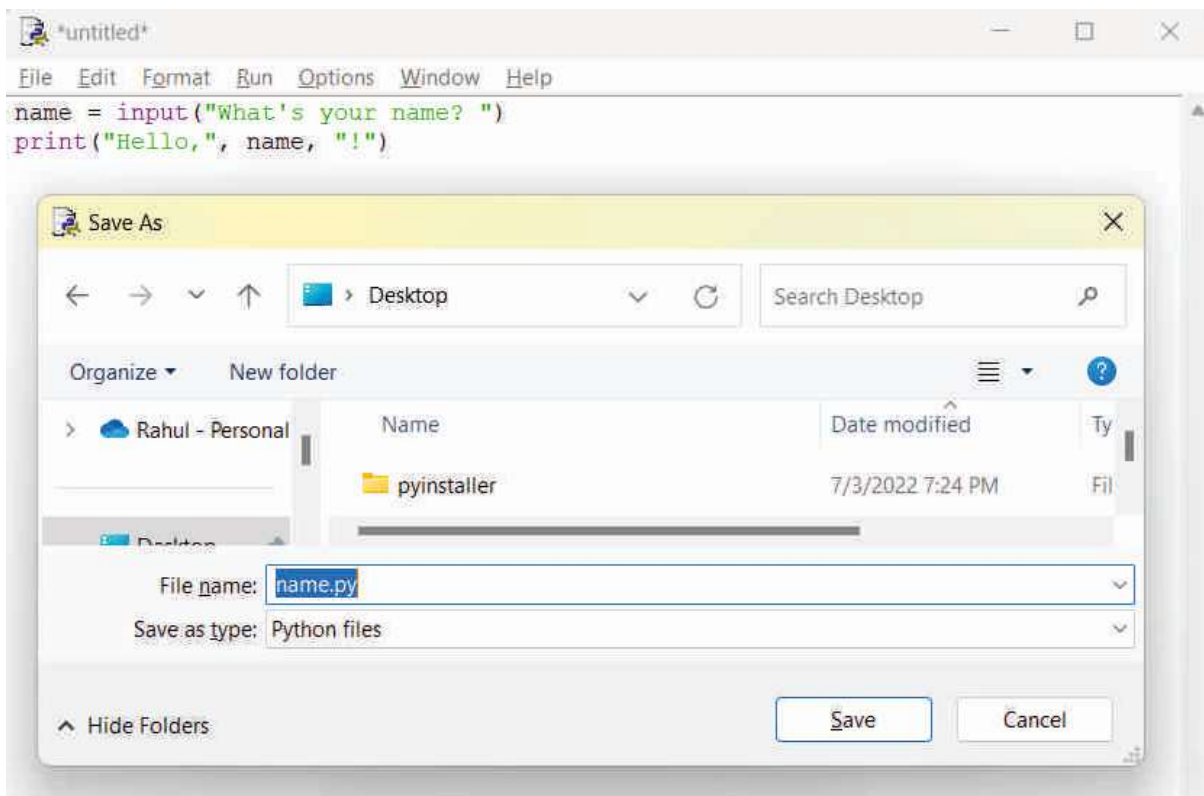


Step 3: Type the following code in the new file

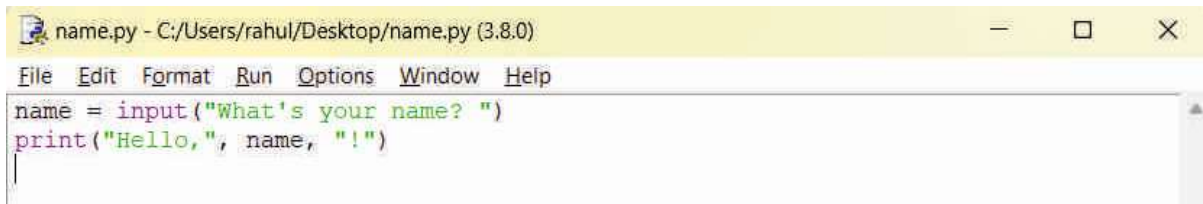


Step 4: Save the file with a ".py" extension, such as "name.py".

- To save. Click on "File" and "Save As..."
- Provide a suitable File name "name.py" at a desired location
- Finally click on Save.



Step 5: This should rename your untitled plain text file with name.py

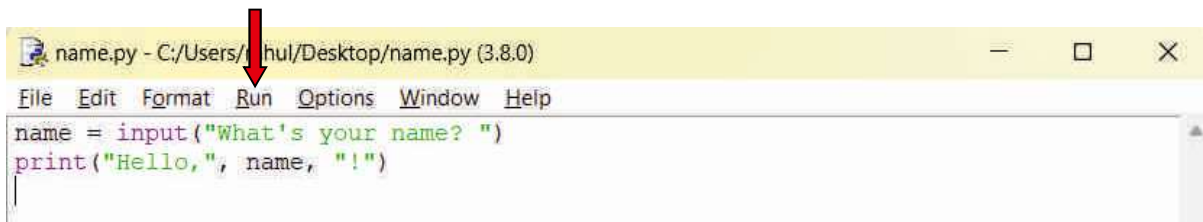


Step 6: This python file “name.py” is in actual your python program or in other words software. This is where you have provided an instruction to computer to do a task.

Run Your Code

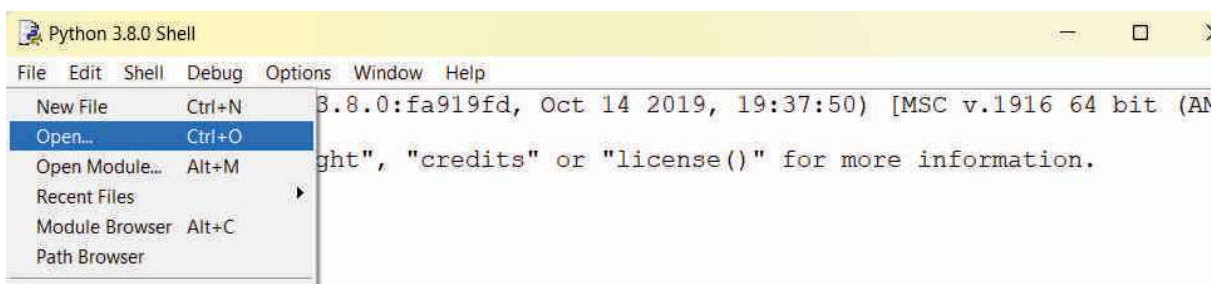
You can run your code now by Clicking on the

- "Run" menu and
- select "Run Module" (or press F5).



Note: If the file in which you have written your python code is not opened, then you

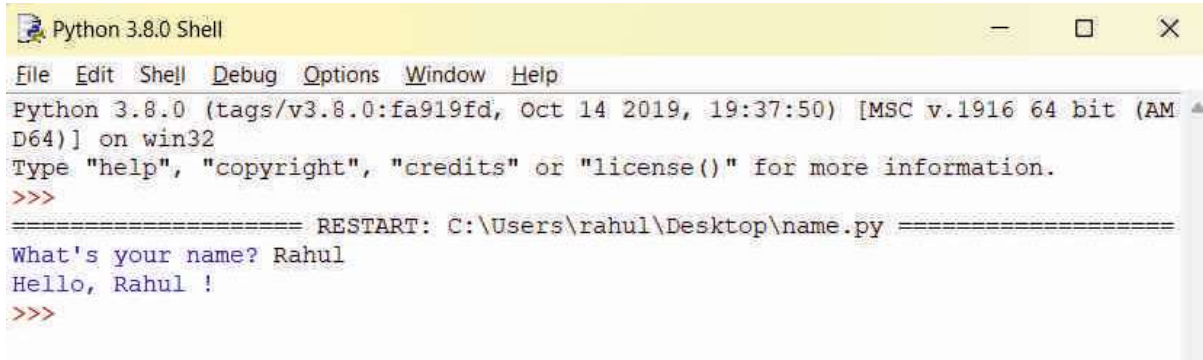
- can go to “File” option of your IDLE environment and then
- click on “open” to open your saved file



Upon clicking on Run Module of name.py file

You'll be prompted to enter your name in the Shell.

Type your name and press Enter.

A screenshot of a Python 3.8.0 Shell window. The title bar says "Python 3.8.0 Shell". The menu bar includes "File", "Edit", "Shell", "Debug", "Options", "Window", and "Help". The main text area shows the following: "Python 3.8.0 (tags/v3.8.0:fa919fd, Oct 14 2019, 19:37:50) [MSC v.1916 64 bit (AMD64)] on win32", "Type 'help', 'copyright', 'credits' or 'license()' for more information.", a prompt ">>>", a separator line "===== RESTART: C:\Users\rahul\Desktop\name.py =====", the input "What's your name? Rahul", the output "Hello, Rahul !", and another prompt ">>>".

```
Python 3.8.0 Shell
File Edit Shell Debug Options Window Help
Python 3.8.0 (tags/v3.8.0:fa919fd, Oct 14 2019, 19:37:50) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\rahul\Desktop\name.py =====
What's your name? Rahul
Hello, Rahul !
>>>
```

Output

What's your name? Rahul
Hello, Rahul !

Hurray, you're rocking, young coders!

In this chapter, you've accomplished a fantastic feat by

- Installing the Python software on your windows computer and
- Exploring the powerful IDLE shell.

You've mastered both the "Interactive Shell Mode" and the "File-Based Scripting Mode," and your programming adventure has just begun!