



Leaders' School & College Chattogram

Class: IX (English Version)

L#01

Topic Name: Introduction to Python Programming

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Have you Ever Made a Recipe?

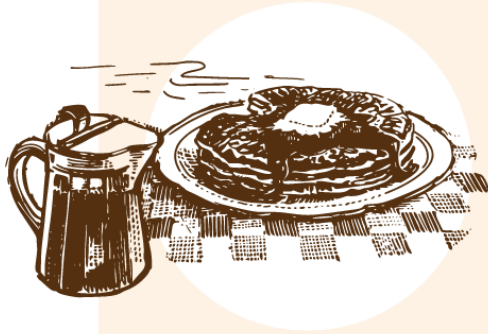


Pancake

Easy Recipe

Ingredients

- 250g plain flour
- 1/2 tsp baking soda
- 1/2 tsp salt
- 1 tsp sugar
- 1 egg
- 250ml buttermilk



Directions

- Sift the dry ingredients in a bowl.
- Make a hole in the middle and add the egg.
- Mix them quickly after breaking the yolk and pouring in the buttermilk until they become stick batter .
- Do not beat when mixing as gluten will appears in the flour, which will prevent the pancakes from rising.
- Fry the mixture in hot griddle pan and served when it is still hot

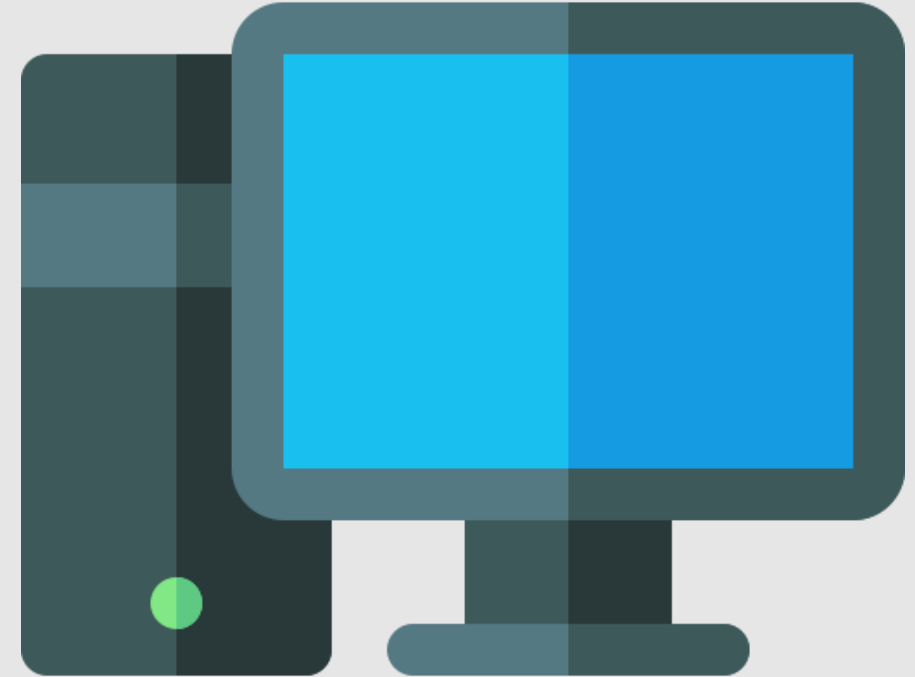
☐ We need to Follow some instructions!

☐ Finally, we will be able to make a delicious item.

What is Programming?



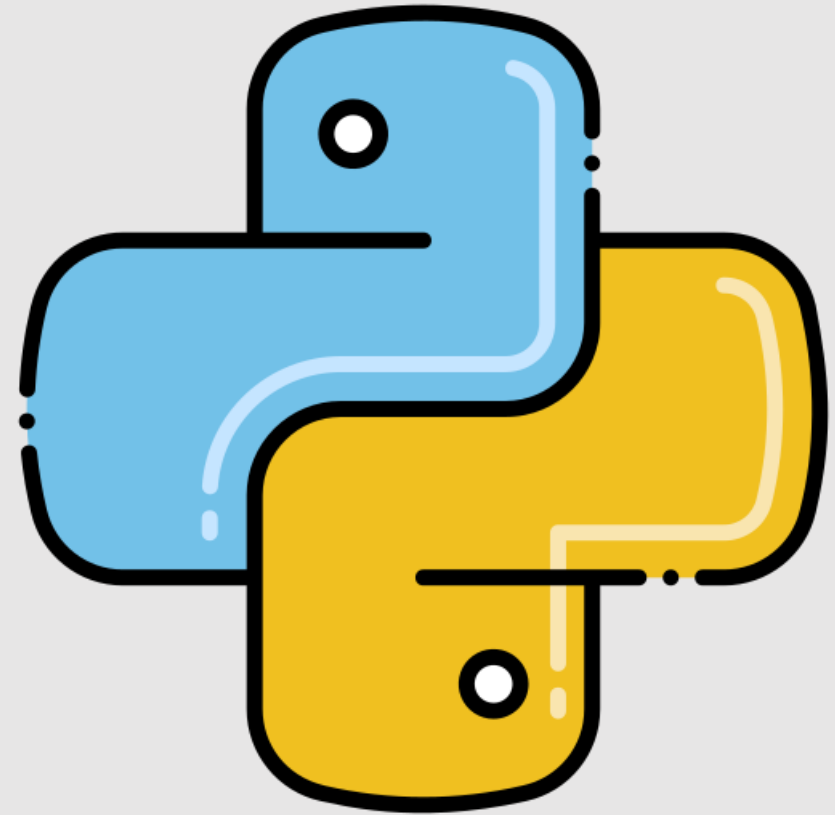
- ☐ **Computer only understand 0 and 1**
- ☐ **We need to give instructions to a computer on what to do**
- ☐ **Program is a set of instructions to do a particular task**



What is Programming Language?



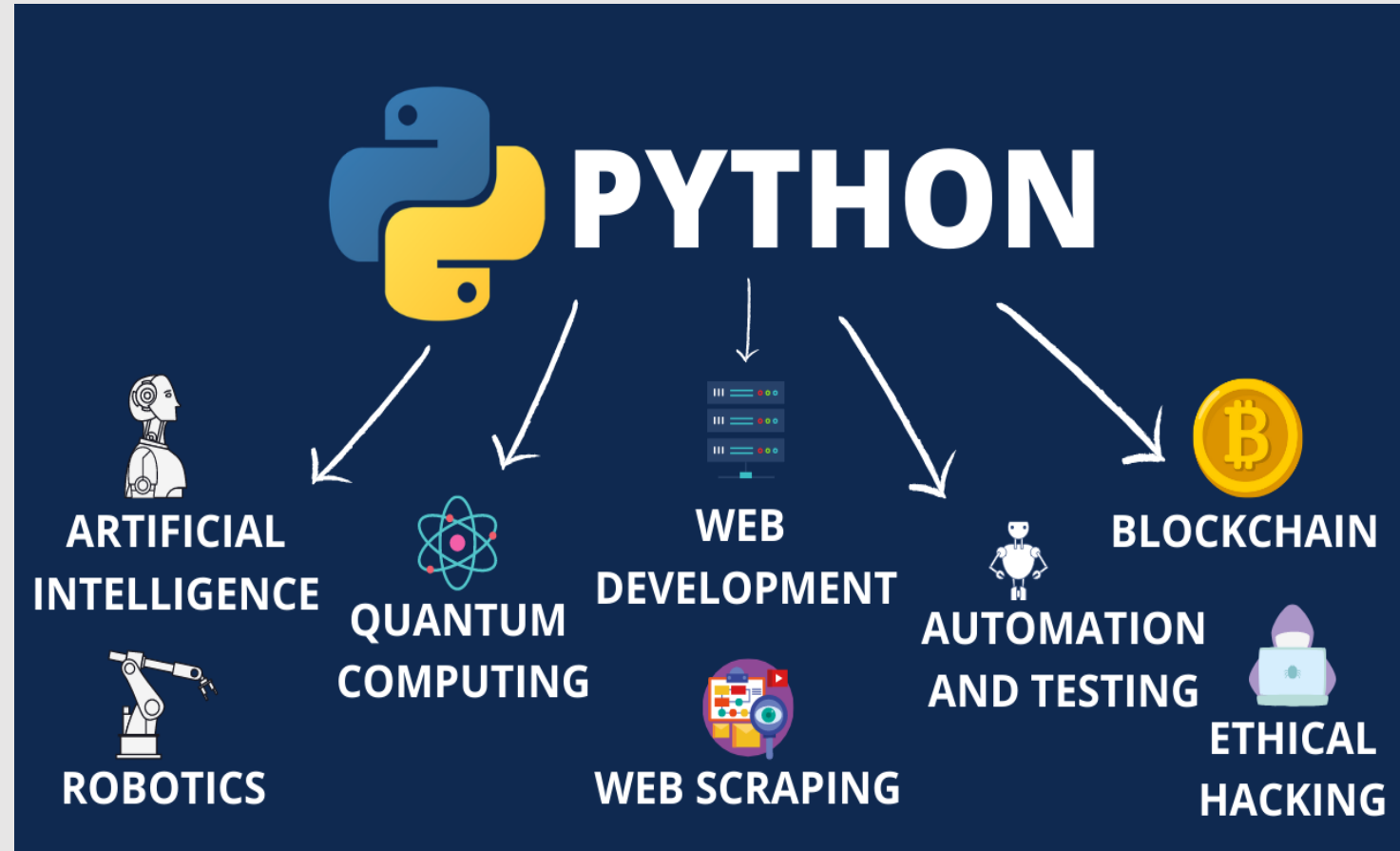
- ☐ We use language to communicate with each other
- ☐ To communicate with computer: for giving instructions, we need to use a language
- ☐ Python is one kind of Programming Language
- ☐ C, C++, Java, C#, JavaScript etc.



Why we choose Python?



- ❑ **Easy to learn and read**
- ❑ **Versatile: Web Development, Data Analysis, Scientific Computing, Artificial Intelligence, Machine Learning, Automation**



Creating Environment: Installing Python and PyCharm



❑ To install Python: visit

<https://www.python.org/downloads/> -

The screenshot shows the Python.org website. The top navigation bar includes links for Python, PSF, Docs, PyPI, Jobs, and Community. The main header features the Python logo, a 'Donate' button, a search bar, and a 'Socialize' button. Below the header is a secondary navigation bar with links for About, Downloads, Documentation, Community, Success Stories, News, and Events. The 'Downloads' section is active, displaying a list of download options: All releases, Source code, Windows, macOS, Other Platforms, License, and Alternative Implementations. The 'Windows' option is highlighted with a red box. To the right of the list, a 'Download for Windows' section provides a note that Python 3.9+ cannot be used on Windows 7 or earlier, and a link to view the full list of downloads. The background of the page features a large image of a yellow and white parachute.

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Download for Windows

Python 3.11.3

Note that Python 3.9+ cannot be used on Windows 7 or earlier.

Not the OS you are looking for? Python can be used on many operating systems and environments.
[View the full list of downloads.](#)

Creating Environment: Installing Python and PyCharm



❑ **To install PyCharm: visit**

<https://www.jetbrains.com/pycharm/download/>



Version: 2023.1.2
Build: 231.9011.38
17 May 2023

[System requirements](#)

[Installation instructions](#)

Download PyCharm

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Professional

For both Scientific and Web Python development. With HTML, JS, and SQL support.

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.exe ▼

Free 30-day trial available

Community

For pure Python development

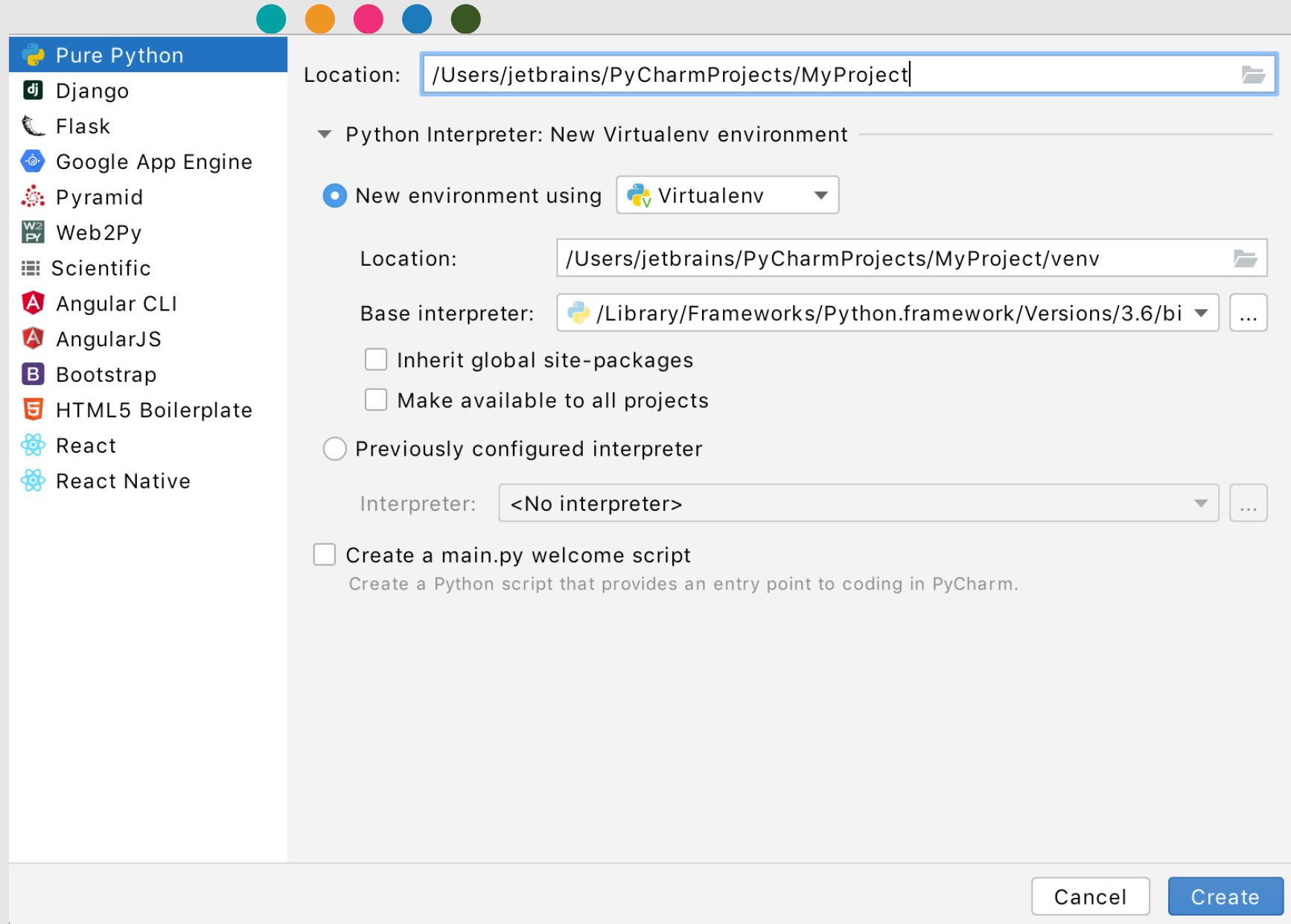
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.exe ▼

Free, built on open-source

Creating Environment: Your First Python Project

- ☐ If you're on the Welcome screen, click **New Project**.
- ☐ If you've already got any project open, choose **File | New Project** from the main menu.

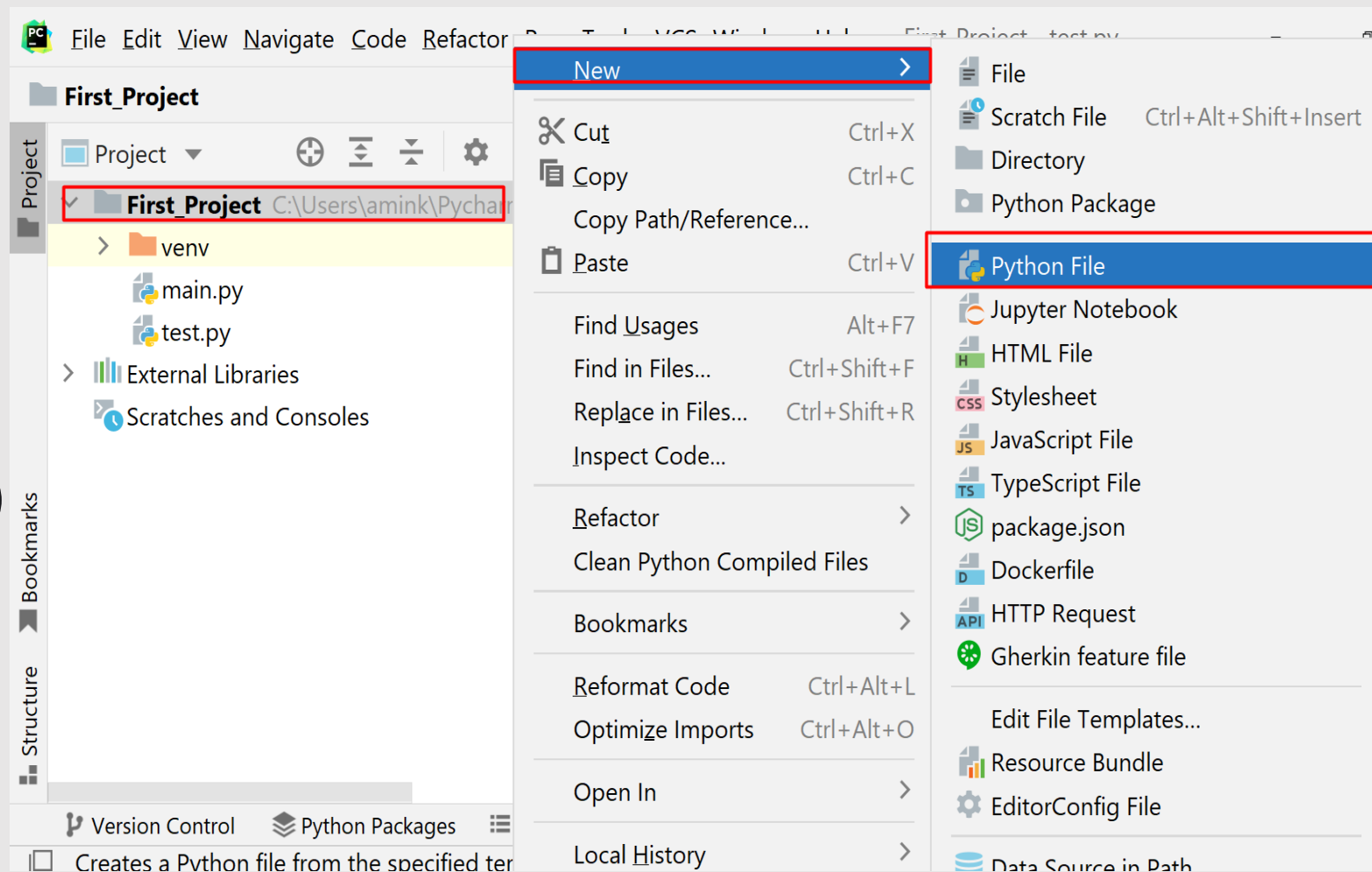
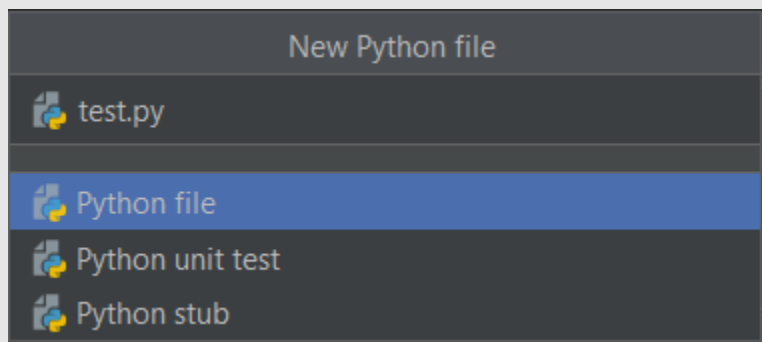


Creating Environment: Your First Python Project



❑ In the **Project** tool window, select the project root (typically, it is the root node in the project tree), right-click it, and select **File | New > Python File**



❑ Type a File name.py(test.py)



Your First Python Program: Print a Message!




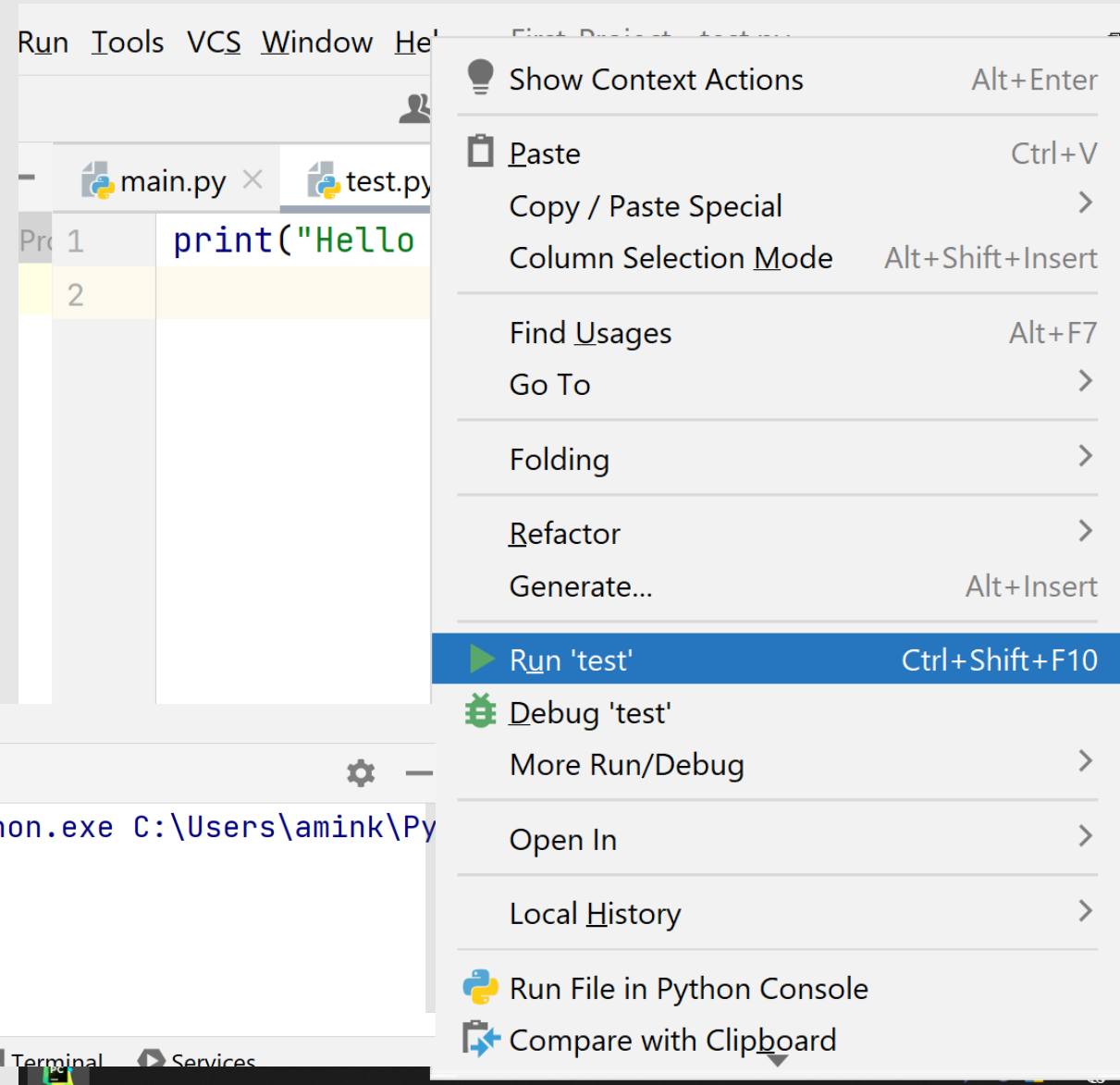
❏ `print("Your Message")`

	 <code>main.py</code> ×	 <code>test.py</code> ×
1	<code>print("Hello World!")</code>	
2		

Run Your Program



- ❑ Right-click the editor and select **Run 'test'** from the context menu
- ❑ Press **Ctrl+Shift+F10**
- ❑ Since this Python script contains a main function, you can click an icon  in the gutter.
- ❑ Output:



Mathematical Operations on print()



	main.py	test.py
1	<code>print(10+5)</code>	
2	<code>print(10-5)</code>	
3	<code>print(10*5)</code>	
4	<code>print(10/5)</code>	
5		

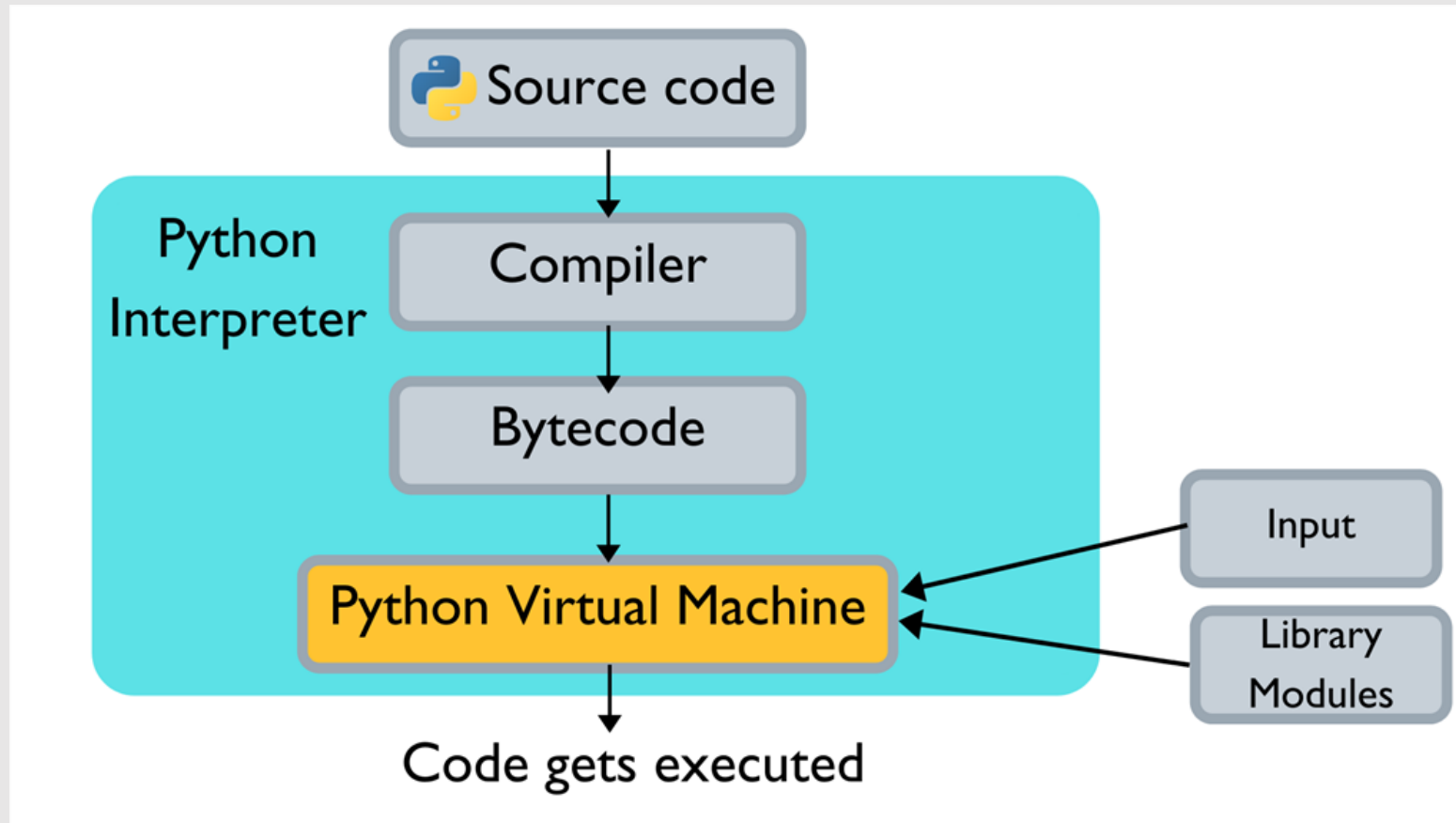
Output:

↑	C:\User
↓	15
↺	5
↻	50
⌵	2.0

How Python Code is Executed?



- ❑ We are writing our code that's human-readable, but we know computers only understand 0/1. So how do computers understand our code?



Test!



☐ Print Your Name, Roll, Class, School Name on Output Screen

```
Name: Amin Kaiser
```

```
Roll: 03
```

```
Class: 09
```

```
School Name: Leaders' School and College
```

Solution!



❑ Print Your Name, Roll, Class, School Name on Output Screen

```
print("Name: Amin Kaiser")  
print("Roll: 03")  
print("Class: 09")  
print("School Name: Leaders' School and College")
```


Q/A Session

