



B.Pharm Semester 1

PHARMACY | PEOPLE | A HEALTHIER TOMORROW

*Science
Meets
Solutions*

MEDICINES
DATA
IDEAS
BETTER HEALTH

Basics of Python Programming for Pharmaceutical Sciences

Unit 1

Introduction to Python Programming

PPT Notes



Learn



Code



Explore

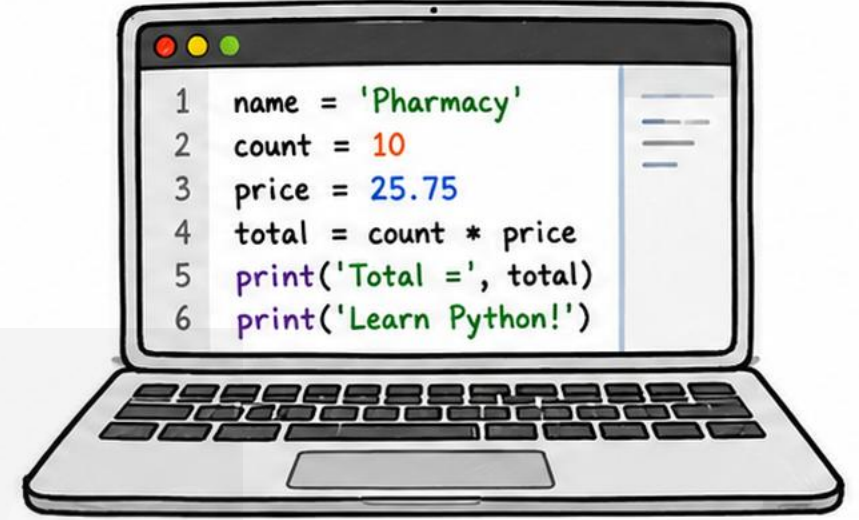
KNOWLEDGE TODAY
BETTER CARE TOMORROW



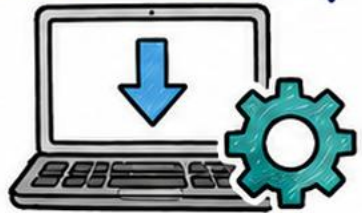
Learn • Code • Explore

PYTHON PROGRAMMING: UNIT 1 ROADMAP

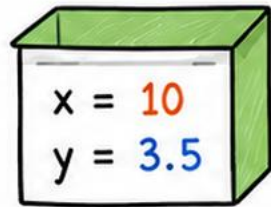
- Python is a high-level, general-purpose language with clear, readable syntax.
- Created by Guido van Rossum; first released in 1991.
- Free and open source; runs on Windows, Linux and macOS.



Unit roadmap:



installation
& IDEs



variables &
data types



operators &
I/O



strings

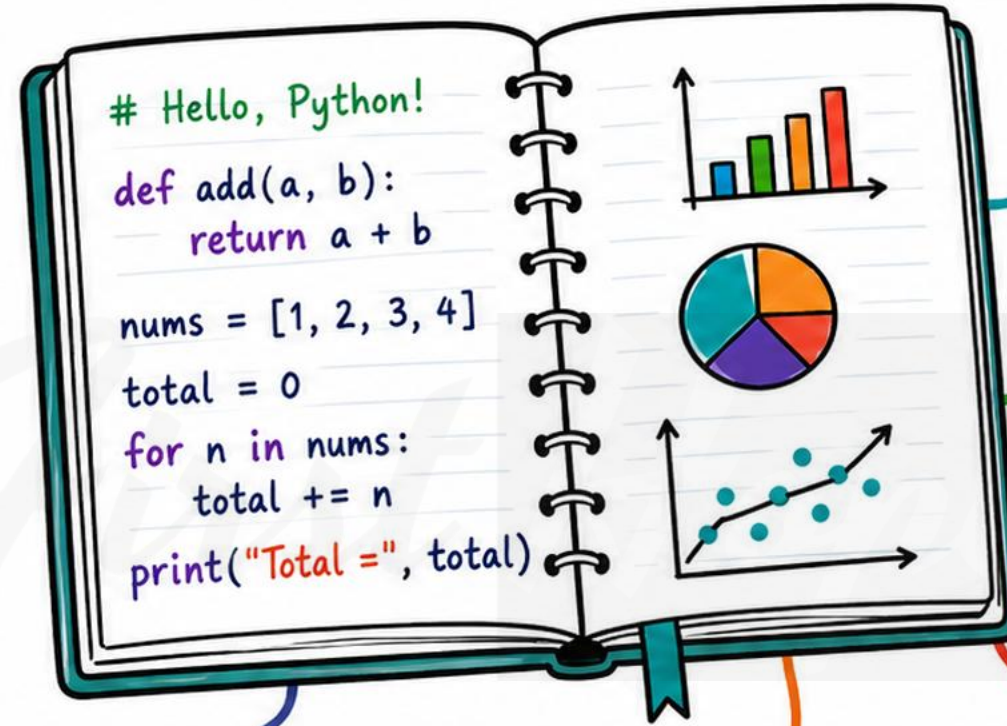


libraries &
pip

WHY PYTHON? FEATURES & APPLICATIONS

KEY FEATURES

- ✓ Simple, readable syntax
- ✓ Fast testing with interpreted execution
- ✓ Procedural, object-oriented and functional styles
- ✓ Rich standard library + third-party ecosystem
- ✓ Cross-platform and beginner-friendly



WEB –
Django, Flask



DATA SCIENCE –
NumPy, Pandas,
Matplotlib



AI / ML –
scikit-learn, TensorFlow



AUTOMATION –
repetitive tasks



GAMES –
Pygame

≡ Short programs, broad applications, strong community support. ≡

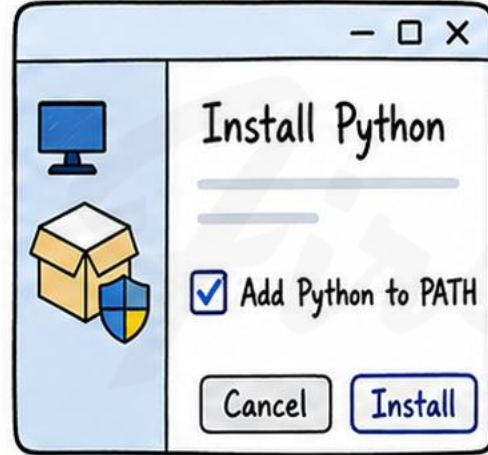
INSTALLING PYTHON

① OPEN python.org



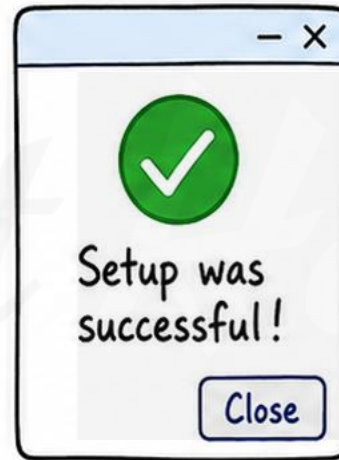
Download the suitable stable installer.

② RUN THE INSTALLER



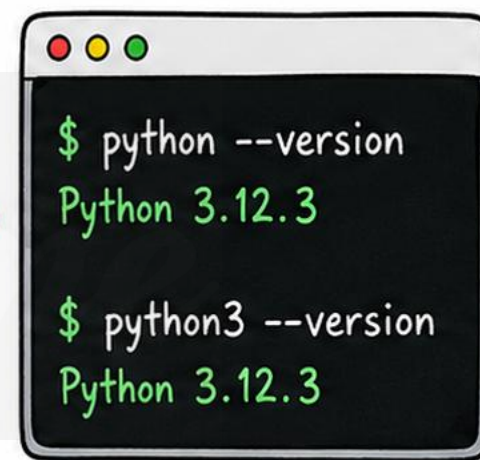
On Windows, select Add Python to PATH.

③ COMPLETE SETUP



Follow the installation instructions.

④ VERIFY IN TERMINAL



python --version
python3 --version

⑤ SUCCESS



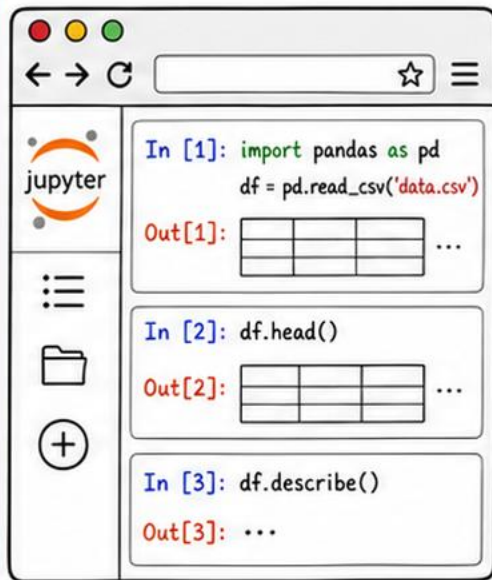
The installed version number appears.



Use Command Prompt or Terminal for the verification commands.

CHOOSING AN IDE

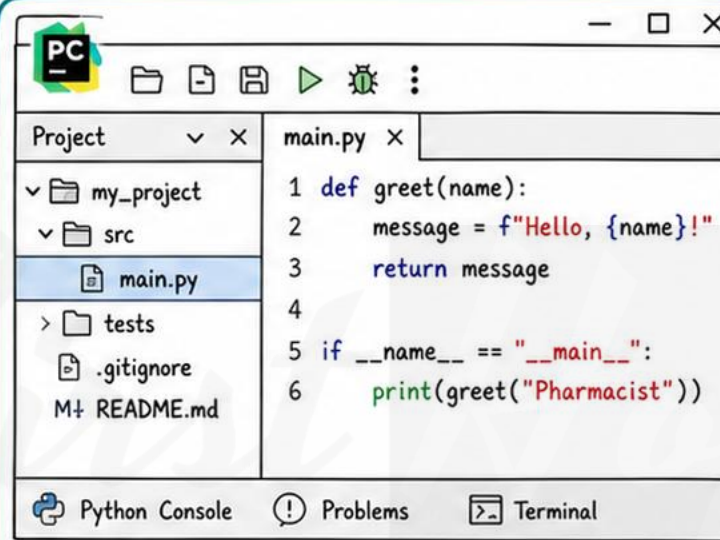
① JUPYTER NOTEBOOK



- Browser-based, cell-by-cell execution.
- Best for learning and data work.

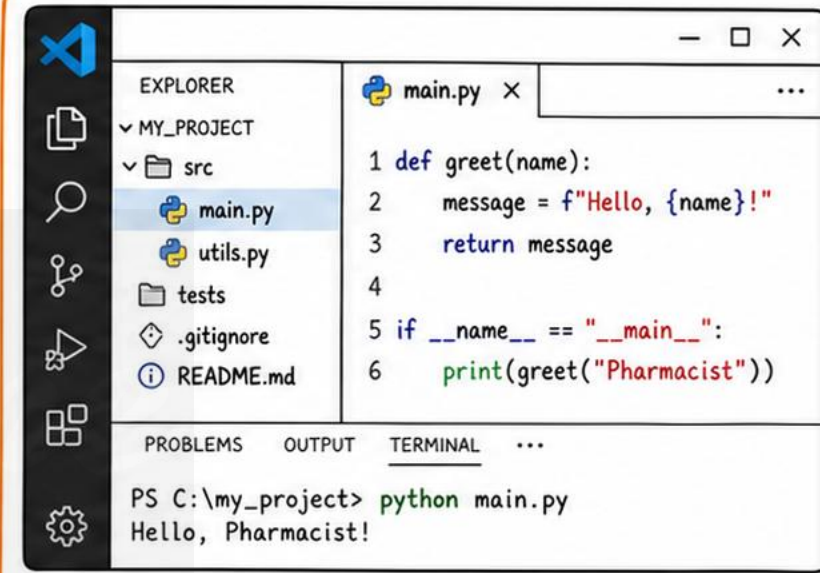
`pip install notebook`
`jupyter notebook`

② PYCHARM



- Full IDE for coding, debugging, testing and project management.
- Configure the Python interpreter.

③ VISUAL STUDIO CODE



- Lightweight editor.
- Install the Python extension and select the interpreter.

WHY USE AN IDE?

syntax highlighting • auto-completion • early error detection • debugger • project management
• integrated terminal • Git support



A text editor is suitable for simple editing; many features require separate tools.



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