

## 30-Day Python Roadmap for Beginners

### WEEK 1 — Python Basics (Days 1–7)

#### Day 1: Introduction to Python

- Install Python, VS Code, first program

#### Day 2: Variables & Data Types

- int, float, string, bool, input()

#### Day 3: Strings

- Methods, slicing

#### Day 4: Operators

- Arithmetic, logical, comparison

#### Day 5: Conditions

- if, elif, else

#### Day 6: Loops

- for, while, break, continue

#### Day 7: Functions

- def, return

### WEEK 2 — Data Structures (Days 8–14)

#### Day 8: Lists

#### Day 9: Tuples

#### Day 10: Sets

#### Day 11: Dictionaries

#### Day 12: List Comprehension

Day 13: File Handling

Day 14: Mini Project

WEEK 3 — OOP + Modules (Days 15–21)

Day 15: Error Handling

Day 16: Modules

Day 17: Classes & Objects

Day 18: Constructor

Day 19: Inheritance

Day 20: Polymorphism

Day 21: Encapsulation

WEEK 4 — Projects + Advanced (Days 22–30)

Day 22: JSON

Day 23: Virtual Environment

Day 24: APIs

Day 25: Database Basics

Day 26: Tkinter

Day 27: Pandas

Day 28: Mini Project #1

Day 29: Mini Project #2

Day 30: Final Project