Python Basics - Self Learning Roadmap

# Step 1: Set Up Your Environment

• Install Python from https://www.python.org  
• Install VS Code or use online compilers like replit.com or Google Colab

# Step 2: Learn Core Concepts (1–2 Weeks)

Study one concept daily, and code daily for at least 1–2 hours.

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| Day | Topic |
| 1 | What is Python? How to write your first program (print('Hello World')) |
| 2 | Variables, Data Types (int, float, str, bool) |
| 3 | Input and Output (input(), print()) |
| 4 | Operators (+, -, \*, /, %, ==, !=, etc.) |
| 5 | If-Else Conditions |
| 6 | Loops (for, while) |
| 7 | Functions (def, return values, arguments) |
| 8 | Lists, Tuples |
| 9 | Dictionaries and Sets |
| 10 | String Manipulation |
| 11 | File Handling |
| 12 | Exception Handling (try-except) |
| 13 | Modules and Importing |
| 14 | Recap + Build a Small Project (e.g., Calculator or To-Do App) |

# Step 3: Practice

Use platforms like:  
• HackerRank (10 Days of Python)  
• Codewars  
• LeetCode (Easy Level)

# Step 4: Learn by Building

Build 2–3 small beginner projects:  
• Calculator App  
• Contact Book  
• Quiz App  
• Simple Budget Tracker

# Best Free Resources

• Python for Everybody - University of Michigan (Free Audit on Coursera)  
• FreeCodeCamp Python Course on YouTube  
• W3Schools Python Tutorial

# Tips

• Write code every day  
• Don’t just watch videos — type everything yourself  
• Ask questions on forums or Telegram groups  
• After basics, move on to Data Structures & Algorithms