

Python Bootcamp

1. Python Setup

- 1.1. Python installation
- 1.2. Environment Selection
- 1.3. Jupyter Notebooks

2. Objects and Data Structure Basics

- 2.1. Numbers
- 2.2. Strings
- 2.3. Lists
- 2.4. Tuples
- 2.5. Dictionaries
- 2.6. Sets
- 2.7. Booleans
- 2.8. Files
- 2.9. Practice Interview Questions

3. Comparison Operators

- 3.1. Basic Operators
- 3.2. Chained Comparison Operators
- 3.3. Practice Interview Questions

4. Python Statements

- 4.1. **if, elif & else**
- 4.2. **for** loops
- 4.3. **while** loops
- 4.4. **range()**
- 4.5. List Comprehensions
- 4.6. Practice Interview Questions

5. Methods and Functions

- 5.1. Methods
- 5.2. Functions
- 5.3. Lambda Expressions
- 5.4. Nested Statements
- 5.5. Scope
- 5.6. Practice Interview Questions

6. First Milestone Project

7. Debugging

8. Object Oriented Programming

- 8.1. Objects
- 8.2. Classes
- 8.3. Methods
- 8.4. Inheritance
- 8.5. Special Methods
- 8.6. Practice Interview Questions

9. Error and Exception Handling

- 9.1. Errors
- 9.2. Exceptions
- 9.3. try
- 9.4. except
- 9.5. finally
- 9.6. Practice Interview Questions

10. Second Milestone Project

11. Modules and Packages

- 11.1. Creating Modules
- 11.2. Installing Modules
- 11.3. Exploring the Python Ecosystems
- 11.4. Practice Interview Questions

12. Built-in Functions

- 12.1. map
- 12.2. reduce
- 12.3. filter
- 12.4. zip
- 12.5. enumerate
- 12.6. all and any
- 12.7. complex
- 12.8. Practice Interview Questions

13. Decorators in Python

14. Python Generators

- 14.1. Iteration vs Generation
- 14.2. Creating Generators

14.3. Practice Interview Questions

15. Writing test cases and Unittesting

16. Third Milestone Project

17. Introduction to Algorithms and Advanced Data Structures in Python

- 17.1. Searching Algorithms (Linear Search and Binary Search)
- 17.2. Some more Data Structures (Stack, Queue, Linked list)
- 17.3. Sorting Algorithms (Bubble, Selection, Insertion, Merge, and Quick Sorts)

18. Solving 100+ Python Interview Questions

19. Data Science using Python

- 19.1. Introduction to Numpy
- 19.2. Data Handling using Pandas
- 19.3. Plotting Data using Matplotlib
- 19.4. Introduction to Machine Learning using scikit-learn
- 19.5. Database interaction with Python (SQLAlchemy, SQLite)

20. A few more advanced topics

- 20.1. Regular expressions
- 20.2. Multithreading and multiprocessing
- 20.3. Web scraping with BeautifulSoup
- 20.4. Introduction to web development with Flask or Django

21. 100+ projects using the concepts learned so far

22. 10,000+ jobs are waiting for you - Start Working as a Python Developer