

Learn Python Programming – Shape Your Future with Code!

 The Most In-Demand Language of the 21st Century

Career Opportunities with Python

- ▶ Python Developer
- ▶ Web Developer (with Django/Flask)
- ▶ Data Analyst / Data Scientist
- ▶ AI / ML Engineer
- ▶ Automation Tester
- ▶ Cybersecurity Analyst
- ▶ Backend Developer

Key Benefits

- ✓ Learn from experts
- ✓ Practical implementation
- ✓ Regular assignments
- ✓ Boost problem-solving skills
- ✓ Project based training
- ✓ Interview Preparation



matplotlib



CONTACT US



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**Module 1: Introduction to Python**

- What is Python?
- History and Features of Python
- Importance of Python
- Role of Compiler and Interpreter
- Difference Between Compiler and Interpreter

Module 2: Python Basics

- Installation of Python
- Python IDEs (IDLE, PyCharm, VS Code, Jupyter Notebook)
- Data Types, Variables, Keywords, Constants
- Python Indentation and Comments
- Input / Output Operations and Python Operators
- Type Conversions

Module 3: Python Data Structures

- Numbers
- Strings and String Methods
 - String Indexing, Slicing, and Formatting
- Tuples (Immutable Lists)
- Lists and List Methods
 - Accessing List Elements / List Operations
- Dictionary and Dictionary Methods, Nested Dictionary
- Sets: Unique Elements, Set Operations

Module 4: Decision Making and Loops

- If / elif / else Statement
- For Loop / While Loop and Nested Loops
- Break and Continue Statements / Pass Statement

Module 5: Functions

- Introduction to Functions and Their Benefits
- Calling a Function / Function Arguments
- Built-in Functions and Return Value
- Function Arguments: Positional, Keyword, Default and Variable-length
- Lambda Functions (Anonymous Functions)

Module 6: Classes and Objects

- Understanding Classes and Objects / Constructors
- Defining Member Functions and Inheritance
- Method Overriding / Method Overloading
- Encapsulation and Data Hiding
- Special Class Methods
- Abstract Classes and Interfaces

Module 7: Exception Handling / Multithreading

- What are Exceptions and Built-in Exceptions?
- Raising and Catching Exceptions
- Finally/Except Blocks and inspect.stack() / print_stack()
- Thread Lifecycle, Creating and starting Threads
- Thread Synchronization

Module 8: GUI Development with Tkinter

- Introduction to GUI and Tkinter
- Widget Basics and Event Handling
- Widget Styling and Layout Managers
- **Tkinter Widgets:**
 - Label, Button, Text, PhotoImage, Combobox, List, OptionMenu, ProgressBar
 - Frame, Menu, Accelerators, Dialog Boxes, ColorChooser, Scrollbars, Treeview, etc.
- **Canvas Drawing:**
 - Rectangle, Line, Arc, Oval
- Tags and Markers
- **Event Handling**
- Mouse Events / Keyboard Events / Virtual Events

Module 9: Modules and Packages

- What is a Module and Importing Modules
- Built-in Modules & User-Defined Modules
- Understanding `__name__ == '__main__'`

Module 10: Python Database Connectivity

- Installing MySQL
- Establishing Connection with a Database
- Reading/Writing Data
- `execute()` / `executemany()`
- Creating Cursors and CRUD Operations
- Database Operations with Tkinter

Module 11: File Handling

- Read/Write Operations and File Modes
- Listing Directory Contents and File Positions
- Handling CSV and JSON Files

Module 12: Regular Expressions

- Introduction to re Module
- Meta Characters and Special Sequences
- Search and Match Functions
- Pattern Matching and Validation

Module 13: Command Line Arguments

ASSIGNMENTS / OBJECTIVES / PROJECT WORK

Master Programming

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 Learn. Code. Succeed.

OFFLINE CLASSES (IN-PERSON)

- Interactive classroom sessions
- Personalized mentorship
- Real-time problem solving

ONLINE CLASSES (LIVE SESSIONS)

- Attend from anywhere in the world
- Live doubt-clearing sessions
- Full access to assignments & notes
- International time zone flexibility

WHY CHOOSE US?

- Industry-aligned curriculum
- Experienced and certified trainer
- Real-world projects and assessments

DATA STRUCTURES

MACHINE LEARNING

**INTERVIEW
PREPARATION**

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ANGULARJS