

urbancode>

Training & Solutions



CORE PYTHON COURSE

Course Curriculum

Module 1: Introduction to Python

- Overview of Python
- Introduction to Python programming language, its applications, and features.
- Installing Python and setting up the development environment.

Module 2: Basic Python Syntax and Data Types

- Python Syntax Fundamentals
- Understanding basic syntax, indentation, and code structure.
- Exploring variables, data types, and operators in Python.

Module 3: Control Structures

- Control Flow
- Exploring decision-making with if, else, and elif statements.
- Implementing loops: for loops, while loops, and loop control statements.

Module 4: Functions and Modules

Functions in Python

- Creating and utilizing functions, parameters, and return statements.
- Introduction to built-in and user-defined functions.

Python Modules

- Importing and using modules in Python.
- Creating and using custom modules.

Module 5: Data Structures

- Lists, Tuples, and Dictionaries
- Understanding and working with different data structures.
- Manipulating lists, tuples, and dictionaries.

Module 6: File Handling

- Working with Files
- Reading and writing files in Python.
- Handling different file formats and operations.

Course Curriculum

Module 7: Error Handling and Exception

- Error Handling
- Introduction to exceptions and error handling in Python.
- Using try, except, and finally blocks.

Module 8: Introduction to OOP

- Introduction to Object-Oriented Programming (OOP)
- Understanding OOP concepts: classes, objects, and inheritance.
- Creating classes and objects in Python.

Module 9: Introduction to Libraries

- Overview of Python Libraries
- Introduction to commonly used libraries such as NumPy, Pandas, and Matplotlib.
- Basics of using libraries for data analysis and visualization.

Learning Approach:

Hands-on Projects and Assignments

- Practical exercises and real-world projects to reinforce learning.

Interactive Learning Resources

- Tutorials, coding exercises, and resources for a deeper understanding.

Assessments and Quizzes

- Regular assessments and quizzes to gauge progress.