

PYTHON COURSE CONTENT

Python is a popular general purpose programming language used for both large and small-scale applications. Python's wide-spread adoption is due in part to its large standard library, easy readability and support of multiple paradigms including functional, procedural and object-oriented programming styles. Python modules exist for interacting with a variety of databases making it an excellent choice for large-scale data analysis and the Python programming language is often the choice for introductory courses in data science and machine learning.

1. Introduction

- ✓ History of Python
- ✓ Features of Python
- ✓ Applications of Python
- ✓ Installing Python
- ✓ Writing First Python Program
- ✓ Executing First Python Program using Interactive Mode
- ✓ Executing First Python Program using Script Mode

2. Python Basics

- ✓ Keywords
- ✓ Identifiers
- ✓ Comments
- ✓ Data Type
- ✓ Variables
- ✓ Operators

3. Python Data Types

- ✓ Numbers
- ✓ Strings
- ✓ Lists
- ✓ Tuples
- ✓ Dictionary

4. Python Operators

- ✓ Arithmetic Operators
- ✓ Relational Operators
- ✓ Logical Operators

5. Decision Making Statements

- ✓ If Statement
- ✓ If - Else Statement
- ✓ If - Elif Statement
- ✓ Nested If Statement

6. Looping Statements

- ✓ For Loop
- ✓ While Loop
- ✓ Loop else
- ✓ Break and Continue
- ✓ Nested Loops

7. Functions

- ✓ Defining a Function
- ✓ Calling a Function
- ✓ Types of Functions
- ✓ Function Arguments
- ✓ Default Arguments
- ✓ Anonymous Function
- ✓ Local and Global Variables
- ✓ Using Python Built-in Functions

8. Modules & Packages

- ✓ Importing Module
- ✓ Working with Math Module
- ✓ Working with Random Module
- ✓ Packages

9. Strings

- ✓ Creating Strings
- ✓ Printing Strings
- ✓ String Indexing and Slicing
- ✓ String Formatting

10.List

- ✓ Creating and Accessing Lists
- ✓ Indexing and Slicing Lists
- ✓ Joining and Replicating Lists
- ✓ Nested Lists

11. Tuples

- ✓ Creating Tuple
- ✓ Accessing Tuple
- ✓ Joining Tuple
- ✓ Replicating Tuple
- ✓ Tuple Slicing

12.Dictionary

- ✓ Creating a Dictionary
- ✓ Accessing values from Dictionary
- ✓ Nested Dictionaries

13.Object Oriented Programming

- ✓ Procedural vs Object Oriented Programming
- ✓ Features of OOP
- ✓ Defining a Class
- ✓ Variables and Methods in a Class
- ✓ Creating Objects
- ✓ Inheritance
- ✓ Data Hiding

- ✓ Method Overloading
- ✓ Method Overriding

14.Exception Handling

- ✓ Errors and Exceptions
- ✓ Exception Handling
- ✓ Try, Except, Finally
- ✓ User-defined Exceptions

15.Database

- ✓ Introduction to Databases
- ✓ Connections
- ✓ Executing Queries
- ✓ Transactions
- ✓ Handling Errors

16.GUI Programming

- ✓ Introduction to Tkinter Programming
- ✓ Tkinter Widgets

JOB OPPORTUNITY OF PYTHON COURSE:

- Software Engineer
- Research Analyst
- Data Analyst
- Data Scientist
- Software Developer