

Netzwerk Academy's Python Development Course

CORE PYTHON:

1. Basics

- 1.1 Installation
- 1.2 Environment Setting
- 1.3 SDK for Code Execution
- 1.4 Python Pros and Cons
- 1.5 Advantages of Python

2. Data types

- 2.1 Mutable and Immutable Categories
- 2.2 Data Type Representation

3. Conditional statements

- 3.1 if else if and else
- 3.2 while statement

4. Loops and control statements

- 4.1 `__iter__` and `__next__`
- 4.2 break and continue statement
- 4.3 enumerate
- 4.4 range
- 4.5 else in for loop

5. Strings

- 5.1 Inbuilt Function Manipulation

6. List

- 6.1 Inbuilt Function Manipulation

7. Tuples

- 7.1 Inbuilt Function Manipulation

8. Dictionaries

- 8.1 Inbuilt Function Manipulation

9. Functions

- 9.1 Types of Functions
- 9.2 return statement
- 9.3 Function Scoping
- 9.4 Execution of Nested Function

10.Exception handling

- 10.1 Types of Exception and Exception Base class
- 10.2 Types of except block
- 10.3 optimized Exception Execution
- 10.4 raise method
- 10.5 “else” and “finally”
- 10.6 user Defined Exception

Advanced Python:

11.OOP concepts

- 11.1 document string
- 11.2 Inheritance and Types
- 11.3 Data Hiding (Access Specifier)
- 11.4 Decorators
- 11.5 Polymorphism
- 11.6 Method Resolution Order

12.Regular expression

- 12.1 match and search method
- 12.2 flags (re.I and re.M)
- 12.3 findall method
- 12.4 sub and split method
- 12.5 detailed explanation on literals and anchor symbols

13.Database

- 1. SQLite3 Execution
- 2. Basic of Tkinter implementation
- 3. Code with Exception
- 4. Basics of ORM implementation

14.Networking

- 14.1 Socket Basics
- 14.2 Client and Server Message Sharing Code
- 14.3 Paramiko and Netmiko Basics

15.Multi-threading

- 15.1 Multithreading Basics
- 15.2 Difference between Multithreading and Multiprocessing

15.3 Concurrency and Parallel Execution Thread

16.File Operation (txt file)

16.1 Context Manager

16.2 Basic File Operation (read, write, append)

16.3 tell() and seek() method

17.Date Time Manipulation

17.1 import datetime and time

17.2 Change time format

17.3 Adding Hours, minutes and Seconds

18.Import and Packages

18.1 Path Reference

18.2 Optimized Code Execution

18.3 Circular Import

18.4 __name__ and __main__ explanation

19. Mongo DB

19.1 Introduction

19.2 Data Modelling

19.3 Data Types

19.4 DB Operation – 1

19.5 DB Operation – 2

19.6 Modelling Relationship

19.7 PyMongo

20. Flask

20.1 API Introduction

20.1 Hosting a website and server concepts

20.3 Difference between Django and Flask

20.4 Input Files and Output Files (JSON)

20.5 Flask Running with Example

20.6 Tools for Testing (PostMan or Insomania)

21. Django

21.1 Django Essentials

21.2 API Creation

21.3 IP and PORT Change

21.4 Admin Page Accessing

21.5 Rendering HTML internally and Externally