Python Programming

1. Introduction to Python Programming

- **Introduction to Python**
- **Use case of Python**

2. Python Installation

- **Installation on Windows**
- **Installation on Mac**
- **Set Path in Mac and Windows**
- **Access Python from Command Prompt**
- **Working with Python IDLE**
- **Python 2 vs Python 3**

3. Python Basics

- **Identifiers & Keywords**
- **Variables assignment**
- **Variables Naming convention Intro- Datatypes, Operators**
- **Comments- Single-Line, Multi-Line**

4. Python Print and Input

- **Python Simple Print Statement**
- **Print using string format and f-strings**
- **Multiline print with Python**
- **Print using Walrus Operator in Python 3.8**
- **Taking Inputs**

5. Python Loops

- **Introduction to loops**
- **For Loop vs While Loop**
- **All about Range function**
- **Nested for loops**
- **Exercise Based on Loops**

6. Python Conditional Statements

- Introduction to If Else and Elif Statements
- Introduction to Break and continue keywords
- Exercise on if else
- Mini Application using python

7. Python Data Types

- Mutable vs Immutable Data Types
- Introduction to Strings
- String assignment
- List
- Tuples
- Dictionary
- set
- Exercise

8.Functions

- Introduction to Function
- Syntax and Arguments
- Types of Arguments
- Exercise on User defined Functions
- Exercise on Pre defined Functions

9. File Handling

- **Introduction to File I/O**
- **Mode & Operations**
- **Read & Write Text Files**
- **Read & write Byte Files**

10. Exception Handling

- **Exception heirarchy**
- **Try , except , else and finally keywords**
- **Raise exceptions**

11. Intro to Web Crawling

- **Web Crawling Vs Web Scrapping**
- **Installing And Testing Package**
- **Understanding Package to make HTTP requests**
- **Scrapping**
- **Projects**

12. API Calls

- API Calls

13. Game Project

- Game Project using python