Certified Professional in Python Programming Training

Course Duration: 40 Hours   **Course Code: PCPP**

1. Course Overview

The **Certified Professional in Python Programming Course Training** is designed to help learners master Python from fundamentals to advanced concepts. This course covers real-world applications, automation, data handling, and programming logic to prepare learners for professional roles in software development, data science, and automation.

2. What You'll Learn

- Python fundamentals (variables, data types, operators)
- Control structures (loops, conditions)
- Functions and modules
- Object-Oriented Programming (OOP) concepts
- File handling and exception handling
- Working with libraries like NumPy and Pandas
- API integration and automation
- Basics of web development using Python
- Real-world project implementation

3. Target Audience

- Students (BCA, MCA, B.Tech, etc.)
- Beginners with no coding experience
- Working professionals looking to upskill

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- Software developers wanting to learn Python
- Data science and AI enthusiasts

4. Pre-Requisites

- Basic computer knowledge
- Logical thinking ability
- No prior programming experience required (beginners friendly)

5. Course Content

Module 1: Introduction to Python

- Python overview and installation
- Syntax and basic structure

Module 2: Data Types & Variables

- Numbers, strings, lists, tuples, dictionaries
- Type casting

Module 3: Operators & Control Flow

- Conditional statements (if, else, elif)
- Loops (for, while)

Module 4: Functions & Modules

- Defining functions
- Lambda functions
- Importing modules

Module 5: Object-Oriented Programming

- Classes and objects
- Inheritance and polymorphism

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Module 6: File Handling & Exception Handling

- Reading and writing files
- Error handling techniques

Module 7: Libraries & Frameworks

- NumPy basics
- Pandas for data analysis

Module 8: APIs & Automation

- REST API integration
- Web scraping basics

Module 9: Mini Projects

- Automation scripts
- Data analysis project