E2MATRIX

Training and Research Institute

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PYTHON COURSE STRUCTURE

Python is a widely used general-purpose, high-level programming language. Its design philosophy emphasizes code readability, and its syntax allows programmers to express concepts in fewer lines of code than would be possible in languages such as C++ or Java. The language provides constructs intended to enable clear programs on both a small and large scale. Python supports multiple programming paradigms, including object-oriented, imperative and functional programming or procedural styles. It features a dynamic type system and automatic memory management and has a large and comprehensive standard library. Python interpreters are available for installation on many operating systems, allowing Python code execution on a wide variety of systems.

DAY 1

1. Introduction to python (Using PowerPoint Slides)
2. Writing Simple Programs
3. Discuss How Python Program runs
4. Types and Operations in python
5. Numbers

6. Strings
7. Lists and Tuples
8. Dictionaries
9. Files
10. Statements and Syntax

DAY 2

1. Assignments, Expressions and Print Statements
2. Conditional constructs
3. Iterative Constructs
4. Introduction to Functions and Lambda Forms
5. Functions and Arguments and Scope
6. List Comprehensions
7. Generators

DAY 3

1. Understanding Modules in Python
2. Module Packages
3. Package imports
4. Mixed usage modes
5. Introduction to OO Programming in python
6. Class coding basics
7. OOP and Inheritance
8. New Styled Classes
9. Introduction to Exceptions