Python Training Program

Objectives of the Course

- **To gain enough knowledge on Python Language**
- **Defining Database Models in Django**
- **To create applications to solve problems and their need**

Pre-requisites

- NO

Core Python

- **Introduction to Python**
- **What is Python?**
- **History of Python**
- **Python Versions**
- **Features of Python**
- **How to Install Python**
- **Install Python with Diff IDEs**
- **Creating Your First Python Program**
- **Printing to the Screen**
- **Reading Keyboard Input**
- **Using Command Prompt and GUI or IDE**

Different Modes in Python

- **Execute the Script**
- **Interactive Mode**
- **Script Mode**
- **Python Comments**
- **Working with Python in Unix/Linux/Windows/Mac/Android**
- **Python New IDEs**
- **PyCharm IDE**
- **How to Work on PyCharm**
- **PyCharm Components**
- **Debugging process in PyCharm**

Variables in Python

- **What is Variable?**
- **Variables in Python**
- **Constants in Python**
- **Standard Data Types**
- **Operators and Operands**
- **Swap variables**
- **Type Conversion**
- **String Handling**

Python Conditional Statements

- **How to use "if condition" in conditional structures**
- **if statement (One-Way Decisions)**
- **if .. else statement (Two-way Decisions)**
- **How to use "else condition"**
- **if ..elif .. else statement (Multi-way)**
- **When "else condition" does not work**
- **How to use "elif" condition**
- **How to execute conditional statement with minimal code**
- **Nested IF Statement**

Python LOOPS

- **How to use "While Loop"**
- **How to use "For Loop"**
- **How to use For Loop for set of other things besides numbers**
- **Break statements in For Loop**
- **Continue statement in For Loop**
- **Enumerate function for For Loop**

Python Lists

- **Lists are mutable**
- **Getting to Lists**
- **List indices**
- **Traversing a list**
- **List operations**
- **List slices**
- **List methods**
- **Map, filter and reduce**

Python TUPLE

- **Advantages of Tuple over List**
- **Packing and Unpacking**
- **Comparing tuples**
- **Creating nested tuple**
- **Using tuples as keys in dictionaries**
- **Deleting Tuples**
- **Slicing of Tuple**
- **Tuple Membership Test**

Python Sets

- **How to create a set?**
- **Iteration Over Sets**
- **Python Set Methods**
- **Python Set Operations**
- **Union of sets**
- **Built-in Functions with Set**
- **Python Frozenset**

Python Dictionary

- **How to create a dictionary?**
- **Python Hashing?**
- **Python Dictionary Methods**
- **Copying dictionary**
- **Updating Dictionary**
- **Delete Keys from the dictionary**
- **Dictionary items() Method**
- **Sorting the Dictionary**
- **Python Dictionary in-built Functions**

Python Functions

- **What is a Function?**
- **How to define and call a function in Python**
- **Types of Functions**
- **Significance of Indentation (Space) in Python**
- **How Function Return Value?**
- **Types of Arguments in Functions**
- **Default Arguments**

- **Non-Default Arguments**
- **Keyword Arguments**
- **Non-keyword Arguments**
- **Arbitrary Arguments**
- **Rules to define a function in Python**
- **Various Forms of Function Arguments**
- **Scope and Lifetime of variables**
- **Anonymous Functions/Lambda functions**
- **map(), filter(), reduce() functions**
- **What is a Docstring?**

Advanced Python

- **Python Exception Handling**
- **Python Errors**
- **Common RunTime Errors in PYTHON**
- **Abnormal termination**
- **Chain of importance Of Exception**
- **Exception Handling**
- **Try … Except**
- **Try ..Except .. else**
- **Try … finally**

Python Class and Objects

- **Introduction to OOPs Programming**
- **Object Oriented Programming System**
- **OOPS Principles**
- **Basic concept of Object and Classes**
- **Access Modifiers**
- **How to define Python classes**
- **Self-variable in python**
- **What is Inheritance? Types of Inheritance?**
- **How Inheritance works?**

Python Regular Expressions

- **What is Regular Expression?**
- **Regular Expression Syntax**
- **Understanding Regular Expressions**
- **Regular Expression Patterns**
- **Literal characters**

Introduction to WEB

- **What is Web?**
- **Web Features?**
- **W3C and W3C Members**
- **Introduction to What WG**

HTML

- **Introduction**
- **Parts in HTML Document**
- **Version Information**
- **Head Section**
- **Meta Information**
- **Favicons**
- **Body Section**
- **HTML FORMS**
- **Anchors, Images**

CSS

- **Introduction**
- **CSS Basics**
- **CSS Introduction**
- **CSS Syntax**
- **CSS Versions**
- **CSS Id & Class**
- **CSS Styling**
- **Styling Backgrounds**
- **Styling Text**
- **Styling Fonts**
- **CSS Borders**

Bootstrap (Powerful Mobile Front-End Framework)

- **What is Responsive Web Designing?**
- **Typography Features**
- **Bootstrap Tables, Buttons, Dropdowns, Navbars**
- **Bootstrap Images**
- **Bootstrap Responsive utilities**
- **Bootstrap Glyph icons**

Django Web Framework

- **What is a Framework**
- **Introduction to Django**
- **Django – Design Philosophies**
- **History of Django**
- **Why django and Features**
- **Environment setup**
- **Web Server**

Getting Started with Django

- **Creating the first Project**
- **Integrating the Project to sublime text**
- **The Project Structure**
- **Running the server**
- **Solving the issues and Migrations**
- **Database Setup**
- **Setting Up Your Project**

Create an Application

- **What Django Follows**
- **Structure of django framework**
- **Model Layer**
- **What are models**
- **Model fields**
- **Querysets**

Views Layer

- **Simple View**
- **Basic view(displaying hello world)**
- **Functional views, class based views**

MySQL Database and SQL

- **Creating MySQL Database**
- **Creating Database Tables**
- **Column Data Types**
- **What is SQL?**
- **Implementing Insert/Delete/Update and select Query**

Benefits of Python Training :

- Python Trainning by MTA-INDIA will not only provide training certificates, but also, it can help students to get placed in their desired corporate world via campus training program. Students can also avail the following benefits as well.

- Students will get core knowledge of the course by the help of numerous practice and practical classes

- This Python Training Program can boost their curriculum vitae.

- After successful completion of Industrial Training Internship program, trainees will get international certificates from Microsoft Technologies

- Students can apply at any IT company by the help of Microsoft International certificates

- Chance to work on live projects of any client to feel the corporate world activities and requirement

Students will be provided with following certificates/documents:

- **Microsoft International Certificate from Microsoft .**

- **MTA Training/Grading Certificate from Mta India.**

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- Get your resume noticed

- Gain recognition from your employer

- Leverage the power of the Microsoft brand

To obtain the Microsoft Certification for Online Live Python Training Program, you must:

- Complete 85 % of the Online Python Training Course
- Secure Minimum 85% in Online Microsoft Certification Exam

Sample Microsoft Certificate

Benefits of MTA Certification

The MTA Certificate measures the fundamental knowledge of an individual in operating system, software development, and database design. The certificate can help individuals become more confident in competing in today's competitive job market, and result in higher potential earning. It can help employees increase their competence, productivity, and credibility with their colleagues and clients. The certificate also helps an employer assign the individual on the project quickly with the right skill level and capabilities.

Online Python Training Key Features:

- **30 Hours of Blended Training**
- **30 Hours of Online live training by Industry experts**
- **Microsoft Certification after the training program**
- **Work on real-life course-end project**
- **Unrecorded Live Training**