Course Name	: LEARN PYTHON IN A DAY
Duration	: 1 day (Physical Classroom / Virtual Live Instructor)
Skill Level	: Beginner

COURSE DESCRIPTION:

Learn Python in a Day is an intensive, hands-on crash course designed for beginners who want to master the basics of Python programming in just one day. Through a combination of practical exercises and interactive learning, participants will get to grips with Python's core concepts such as variables, data types, control flow, loops, and more. This course is carefully structured to guide you step by step, making Python approachable and easy to understand, even if you have no prior programming experience.

What sets this course apart is the integration of an AI companion, a cutting-edge tool designed to make learning faster and easier. The AI assistant will help you write, debug, and test code in real time, providing instant feedback and guidance on code challenges. This innovative approach not only accelerates the learning process but also ensures a more engaging and confident coding experience. By the end of the course, you'll be equipped with essential Python skills and the ability to tackle programming challenges independently.

WHAT WILL YOU LEARN?

In this course, you will learn the fundamentals of Python programming, including variables, data types, and control flow. You'll gain hands-on experience with loops, functions, and file handling, as well as explore key data structures like lists, tuples, and dictionaries. Through practical coding exercises, you'll build the confidence to write basic Python programs. Additionally, you will leverage the latest AI companion to assist with coding, helping you to debug, troubleshoot, and improve your coding skills in real-time, ensuring a smooth and interactive learning experience.

PREREQUISITE:

This course is designed for absolute beginners with **no prior programming experience**.

METHODOLOGY:

This program will be conducted with interactive lectures, PowerPoint presentations, discussions, and practical exercises. This course can be conducted as instructor-led (ILT) or virtual instructor-led training (VILT).

JOB SCOPE:

Upon completion of this course, candidates may pursue the following career paths:

- Data Analyst
- Full Stack Developer
- AI Developer
- Python Developer
- Automation Engineer

MODULE 1: INTRODUCTION TO PYTHON
- Welcome
- Overview of Python and its applications
- Setting up Python and IDEs (Jupyter Notebook, VS Code)
- Basic Python syntax (variables, data types, and comments)

MODULE 2: CONTROL FLOW AND LOOPS
- Boolean logic and comparison operators
- Conditional statements (if, elif, else)
- Looping with for and while loops

MODULE 3: LISTS, TUPLES, AND DICTIONARIES
- Introduction to lists (creating, accessing, modifying)
- Introduction to tuples (immutable sequences, operations)
- Introduction to dictionaries (key-value pairs, adding and accessing values)

MODULE 4: FUNCTIONS AND FILE HANDLING
- Defining and calling functions
- Parameters and return values
- Reading and writing files (text files)

MODULE 4: INTEGRATING AI AND APIs
- Introduction to APIs: What they are and how they work.
- Fetching data using APIs with the requests library.
- Parsing JSON responses to extract useful information.
- Using AI assistants to automate API-based tasks.

CONCLUSION
- QA
- Useful References and Books
- Feedback