Certified Professional Training

Python for Data Science

Practical Training on Real World Industrial Projects

Target Learners: Undergraduates and Job Professionals

Pre-requisite: Basic computer technological skills

Duration: 1.5 Months (2 sessions each week = Total 12 sessions)

Credit Hours: 24 (4 Hours each week)

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Enrollment Form: https://forms.gle/wHUTGTGtAAba5AjN6

Key Takeaways

After completing this course, participants will be able to:

- Understand the fundamentals of Data Science and explore related career paths and roles.
- Explain what Python is and why it is widely used for Data Science and analytics.
- Set up a Python development environment using Anaconda and Jupyter Notebook.
- Use variables, data types, and type conversion effectively in Python programs.
- Apply Python operators and expressions to perform calculations and logic.
- Implement conditional statements (if, elif, else) to control program flow.
- Use loops (for and while) to automate repetitive tasks and iterate over data.
- Work with lists and tuples to store, access, and manipulate collections of data.
- Use sets and dictionaries for efficient data storage and key-value operations.
- Perform string manipulation using common Python string methods.
- Handle user input, output operations, and basic runtime errors in Python.
- Define and use functions with parameters and arguments to write reusable code.
- Apply Python fundamentals to solve practice problems and implement a mini project independently.

Approved by

ViLabs Academy, Advisory Board Members (ABM) comprises senior educators, industry leaders, and global technology experts who provide strategic guidance across training design and curriculum development. The Board actively reviews course content, ensures alignment with current industry demands, and validates learning outcomes against global skill standards. Their involvement guarantees that all ViLabs Academy programs remain credible, practical, and workforce-ready, giving learners and partners confidence in the quality and relevance of our education.

Software/Tools to be learn

- Anaconda
- Jupyter Notebook

Course Outline

- Introduction to Data Science & Career Paths
- What is Python? Why Python for Data Science?Installing Anaconda & Using Jupyter Notebook
- Variables, Data Types & Type Conversion
- Operators & Expressions
- Conditional Statements (if, elif, else)
- Loops (for, while)
- Lists & Tuples
- Sets & Dictionaries
- String Handling & Common Methods
- Input/Output & Basic Error Handling
- Functions (parameters vs arguments)
- Practice Problems
- Mini Project