

Module – 1: Basics of Python

- Introduction to Python
- Installation & Setup
- Keywords, Variables and Data Types
- Conditional Statements, Loops, Control flow (along with loops)
- Strings and Features String Manipulation Functions
- Arrays
- Python Function
- Python Built-in functions
- Python Lambda Functions
- Python Modules
- Python File I/O
- Read and Write from/to CSV Files
- Read and Write from/to Excel Files

Module – 2: Working with Collections

- Lists and Features
- List Functions
- List Comprehension
- Tuple and Features
- Functions and Methods
- Dictionaries
- Sets and Frozen sets

Module – 3: OOPS Concepts

- Python OOPS concepts
- Object Class
- Constructors
- Inheritance

Module – 4: Miscellaneous Topics

- Exception Handling in Python
- Regular Expressions using Python
- Web scraping using Python
- Python Assertion
- Python JSON
- Python Decorators and Generators

Module – 5: Python JDBC

- Setting up My SQL Environment
- Creating a Database connection
- CRUD operations using Python JDBC

Module – 6: Python for Data Science (Optional)

- Working with Numpy
- Working with Pandas
- Working with Matplotlib

Module – 7: Web Programming using Django and Flask (Optional)

- Introduction to Django
- Environment Setup
- Django Architecture
- Application Building using Django
- Introduction to Flask
- Flask Architecture
- Application Building using Flask