

Adv. Python Language Course

(CODING SYLLABUS)

Course Overview

Advance Python is a general-purpose, object-oriented programming language with high-level programming capabilities. It has become famous because of its apparent and easily understandable syntax, portability, and easy to learn.

Duration: 45 Days

Job Prospects

Python is known to be one of the most popular programming languages. It offers several career opportunities as well. Every year, the demand for python developer's increases. And this is also one of the reasons why Python is one of the most popular programming languages known.

Job Profiles

- Junior Programmer
- Software Engineer
- DevOps Engineer
- Data Scientist
- Python Developer
- Research Analyst
- Data Analyst

Course Content

Python Classes

- Introduction to Object-Oriented Python
- Creating Your First Class
- Inheritance
- Multiple Inheritance and Method Resolution Order
- Accessing Attributes
- Superclass Methods
- Method Overloading
- Class Attributes
- Static and Class Methods

Unit Testing

- Introduction to Unit Testing
- The unit test Module
- Assertions
- Test Suites

Advanced Classes

- Documenting Your Class
- Private Attributes
- Defining Properties
- `__setitem__` and `__getitem__`
- Operator Overloading
- Making a Class Iterable
- Abstract Classes
- Class Decorators
- Class Decorators with Arguments
- MetaClass Programming

Functional Programming

- Lambdas
- Passing Functions as Parameters
- List Comprehensions
- Nested List Comprehensions
- Map, Reduce, and Filter
- Generators
- Coroutines

Working with Files

- Reading from Files
- Reading Lines from Files
- Writing and Appending to Files
- File Attributes
- Introduction to Database(MySQL)
- Python Database Connectivity

Python GUI

- Tkinter overview and creating simple application program using Tkinter.

