



Web Development in Python with Django

Syllabus

Duration: 60 Hours

1. Introduction to programming

- What is program
- What is programming
- Why is programming
- What is programming Language
- Classification of Programming Languages

2. Introduction to Python

- What is Python
- Features of Python
- Installation of Python
- Using the Python Interpreter IDLE
- Salient Features of Python
- Basic Syntax of Python

3. Using Variables in Python

- Data Types and Variables
- Numeric Data Types
- Dictionary Data Type

4. Basics of Programming in Python

- Understanding Programs and Programming
- Using Conditionals
- Using Loops
- Using Functions
- Using Functions from Built-in Modules
- Constructing Modules and Packages

5. Principles of Object-oriented Programming (OOP)

- Overview of OOP
- Declaring Class and Creating Objects
- Understanding Inheritance
- Using Magic Methods

6. Connecting to SQLite Database

- **Introduction to SQL**
- **Creating a SQLite database**
- **Accessing SQLite Database through Python**

7. Framework of Python

- **Introduction to Django**
- **Installation of Django**
- **Functionalities of Django**
- **Features of Django**
- **Django Template Language**
- **Utilities of Templates**
- **Creating Template Objects**
- **Tags, Variables and Filters**
- **Rendering Templates**
- **Template Inheritance**
- **Form Handling**
- **Form validation and Error Messages**
- **Form Display**

8. Models and Dynamic Webpages

- **Django Models**
- **Model Fields**
- **Model Inheritance**
- **CRUD on DB**
- **Primary keys and the Model**
- **Dynamic Webpages**
- **Toggle Hidden Content**
- **jQuery and AJAX integration**

9. Complementary

- **HTML**
- **CSS**
- **JS Basic**

10. Major Project Work

11. Placement Assistance Sessions

- **Mock Interviews**
- **GDs**
- **Preplacement Talks**
- **Industry Exposer Sessions**