

PYTHON FULL STACK DEVELOPMENT - COMPLETE SYLLABUS

Outcomes by the End of the Course

- Build complete full-stack web applications using Python
- Develop dynamic frontend interfaces
- Create REST APIs using Django / Flask
- Work with databases (SQL & ORM)
- Implement authentication & authorization
- Deploy applications to live servers
- Prepare confidently for full-stack developer roles

Career Opportunities

- Python Full Stack Developer
- Backend Developer (Python)
- Django Developer
- Web Application Developer
- Software Engineer
- Freelance Web Developer

Foundation Module (HTML, CSS & JavaScript)

- HTML5 & Semantic Tags
- CSS3, Flexbox & Grid
- Responsive Design
- JavaScript Fundamentals
- DOM Manipulation
- Mini Project

Core Python Programming

- Introduction to Python
- Variables & Data Types
- Operators
- Conditional Statements
- Loops

- Functions
- Lists, Tuples, Sets, Dictionaries
- OOP Concepts
- Exception Handling
- File Handling

Database Module (SQL)

- Introduction to Databases
- SQL Basics
- CRUD Operations
- Joins
- Constraints
- Database Design Basics

Backend Development (Django / Flask)

- MVC / MVT Architecture
- Project Setup
- Routing & Views
- Templates
- Models & ORM
- Forms Handling
- Authentication System
- REST API Development
- Middleware
- Deployment

Frontend Integration

- Connecting Backend with Frontend
- API Integration
- JSON Handling
- Authentication Flow
- Project Structure Best Practices

Advanced Full Stack Concepts

- JWT Authentication
- Role-Based Access Control

- File Uploads
- Pagination & Search
- Performance Optimization
- Environment Variables
- Cloud Deployment

Real-Time Projects

- Authentication System
- Blog Application
- E-Commerce Web App
- Admin Dashboard
- Final Industry-Level Project

Additional (Job-Oriented Topics)

- Git & GitHub
- Resume Building
- Portfolio Development
- Interview Preparation
- Mock Interviews
- Freelancing Guidance

