Fullstack Web Development using Python, Django and MySQL

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## **CEO**

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#### **Course Details:**

Name	Fullstack web development using
	Python and Django
Course Duration	80 hours
Fees	INR 15,000 (Fifteen thousand only)

Fullstack web development using python has become the hot skill in the industry. It is essential for the graduates and professionals to learn and master these skills. One has to be well versed with front end, middleware and database programming to become a full stack web developer.

#### **Objectives of Training**

- Provide minds-on and hands-on training
- Understand Python and its applications
- Understand Web design and development using python
- Learn rapid web application development using Django framework
- Learn building RESTful Webservices
- Learn database programming using python
- Build simple web application modules

### Outcome of Training

- Trainees should be able to independently develop sample web application
- End to end (Full stack) application development
- Trainees can develop web application or back end application for their projects/internships
- Training on Python should enable trainees to solve objective and programming type questions. This would help them to prepare for placements/switch career.

#### **Syllabus**

Module	Topics
Module 1 - Basics	✓ Introduction to Python and its usage in the industry
of Python	✓ Introduction to Anaconda
Programming	✓ Installation of Anaconda Python Distribution
	✓ Jupyter Notebook Installation
	✓ Jupyter Notebook Introduction
	✓ Variable Assignment

<ul> <li>✓ Basic Data Types: Integer, Float, String, None, and Boolean;         Typecasting</li> <li>✓ Creating, accessing, and slicing tuples</li> <li>✓ Creating, accessing, and slicing lists</li> <li>✓ Creating, viewing, accessing, and modifying dicts</li> </ul>
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✓ Creating, viewing, accessing, and modifying dicts
✓ Creating and using operations on sets
✓ Basic Operators: 'in', '+', '*'
✓ Functions
✓ Lambda functions
✓ Object Oriented Programming
✓ Regular expression
✓ Database programming
✓ Sample programs and assignment
Modules 2 – Basics ✓ Introduction to web design and application development
of Web Application ✓ Installation of Sublime text
Development ✓ Basics of HTML programming
o HTML Elements
o HTML Forms
✓ Basics of CSS programming
<ul> <li>Style attributes – Color,Font,Image,etc</li> </ul>
<ul> <li>Internal, Inline and external styling</li> </ul>
<ul> <li>Introduction to responsive web design</li> </ul>
✓ Basics of Java script programming
<ul> <li>Building blocks – variables, operators, conditional</li> </ul>
statements, loops
✓ Basics of AJAX
✓ Sample programs and assignment
Module 3 - Django ✓ Introduction to web framework
Web framework ✓ MVC/ MVT Architecture
✓ Installation of Django framework
✓ Write first Django app – A basic poll application
✓ Building blocks – URL's, Routes and paths
✓ Understand – GET,POST,PUT and DELETE
✓ Learn data exchange formats such as JSON and XML
✓ Develop static and dynamic content
✓ Write Application Programming Interface (API)
✓ CRUD – using database
✓ Sample programs and assignment

Module 4 – REST framework and end to end application development	<ul> <li>✓ Introduction to REST API's</li> <li>✓ Develop REST API's using Django</li> <li>✓ Develop end to end sample application and hosting</li> <li>✓ Debugging of programs</li> <li>✓ Develop sample project</li> <li>✓ Assessment and feedback</li> </ul>
Module 5 – Project	<ul> <li>✓ Develop a project using python,Django and MySQL</li> <li>✓ Assessment</li> </ul>