



Excellence Educational Academy

Alipore, Kolkata

[Where **TALENT** is the keyword]

Sister Concern is



DIGITAL EDUCATION
WHERE TALENT IS THE KEYWORD

e-DIGITAL LEARNING

AN INSTITUTE FOR MULTIDISCIPLINE TECHNICAL COACHING CLASSES & GUIDANCE
[Founded and Directed by a Renowned Academicians & Corporate Professionals]

Ref. No. : EEA/PY-DJ/IT/2023

Date : 11/08/2023

IT Professional Training Curriculum for IT Participants

Name of the Corporate Training Course:

Full Stack Web Development Using Python with Django

Synopsis : This will enable the students to build interactive and responsive web applications from start to finish using one of the most versatile tech stacks : [Front-end Web Development(i.e. HTML, CSS, JavaScript & Bootstrap) + Python Programming + Back-end Web Development with Django].

Prerequisites : HTML, CSS (Good Knowledge), JavaScript & Bootstrap.

(Basic Programming concept like loops, conditions, functions etc.)

Total Duration : 5 Months i.e. 80 Hrs [72 Hours + 8 Hours (Capstone Project)]

Program Modules

* Refresher & Gap analysis [2 classes]

Section 1 – Front-end Web Development [24 Hrs]

Module 1 - HTML [6 Hours]

1. Introduction To HTML
2. Client , Server , Browser
3. DOM Object
4. Basic HTML Tags

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5. Hyperlinks – Navigation within page, different page and specific location
6. Lists – Ordered / Unordered
7. Images – browser support, loading, properties
8. Hotspot – Extracting information from an Image
9. Frames
10. Tables
11. Forms
 1. GUI Design
 2. Components (HTML5)
 3. TextField, Password, TextArea
 4. Radio Button, Check Box, Combo Box
 5. Button, Submit, Reset
 6. File

Module 2 - CSS [6 Hours]

1. CSS Basics
2. Selectors
3. The Cascade and Inheritance
4. Properties
5. Applying Font Faces
6. Manipulating the Display of Text
7. Background colors and Images
8. Box model : Controlling Margins, Borders, Padding,
Width, Height
 1. Basic HTML Tags
 2. Floating and Vertical Alignment
 3. Styling Lists , Customizing Mouse Cursor, Opacity
and Visibility
 1. Positioning
 2. Layout

Module 3 – JavaScript [6 Hours]

1. Introduction to JavaScript
2. Features – Data types, Control Statements, Loops, Functions
3. Events
 1. Button events – onClick, onDblclick
 2. Mouse Events – onMouseover, onMouseout, onMousemove
 3. Key Events – onKeyPressed, onKeyDown, onKeyUp

4. JavaScript Object Hierarchy

1. Window Object – alert, confirm, prompt
2. Document Object – open, close
3. Location Object – href, protocol, file, url
4. History Object – forward, back, length
5. Form Object – accessing form controls, capturing values
6. JavaScript Objects – Date, Array, Navigator
7. Validation – Client side
8. Overriding – onSubmit event

Module 4 – Bootstrap [6 Hours]

1. Introduction
2. Environment – setup
3. Document structure
4. Layouts – Breakpoints , Container types, Alignment in grids
5. Contents – Typography, Images, Tables
6. Forms
7. Components – Dismissible Alerts, Badges, Breadcrumbs ,Button and Button groups, cards,carousels, dropdowns, modal, navs, navbar, popover, progress bars

Section 2 – Python Programming [22 Hrs]

Module 5 – Introduction To Python, Data Types And Collections [6 Hours]

1. What is Python and brief history
2. Why Python and who use Python
3. Discussion on Python 2 and 3
4. Unique features of Python
5. Discussion on various IDE's
6. Installing python and setting up Python environment for development
7. Installation of VSCode
8. Write your first program in python
9. Introduction to Python objects
 1. Python built-in functions
 2. Number, String, Float
 3. Print formatting with strings
 4. List, Tuple, Dictionary, Sets and Boolean

Module 6 – Control And Workflow Statement [4 Hours]

1. If, elif and else statements
2. For loops and While loops
3. List comprehensions

Module 7 – Functions, Exception Handling [6 Hours]

1. What is Methods/ Functions and how to define it
2. What are various types of functions
3. Lambda Expressions
4. Map and filter
5. Nested statements and scope
6. Args and kwargs
7. Introduction to error handling
8. Try, except and finally
9. User defined exceptions
10. Unit testing

Module 8 – Object-Oriented Programming [6 Hours]

1. What is OOP
2. Classes and Objects
3. Inheritance
4. Polymorphism
5. Encapsulation

Section 3 – Backend Web Development with Django [26 Hrs]

Module 9 – Database Connectivity, Python Modules [6 Hours]

1. Connect mysql or,sqlite3 database using python script
2. Use config parser to manage multiple environment files.
3. Understand packages and module in python Django

Module 10 – Introduction To Web Development And Django [6 Hours]

1. What is web site development and introduction to Django web framework.
2. Basics of html, css and bootstrap.
3. What is web server, hosting server, development environment and production environment.

4. What is port, session, cookies, browser, responsive, etc .
5. How to write first web application using python Django .
6. Explain MVC pattern.
7. What is view, model, urls mapping routing

Module 11 – Django MVC And View, Templates And Form [6 Hours]

1. What is the Django template? How to use it?
2. Integrate bootstrap4 and html with Django template
3. Create a responsive template
4. What is form? How to create it
5. CRUD operations
6. Django model form

Module 12 – Database Models [4 Hours]

1. Understand database concept
2. Schema designed and naming convention
3. Try to understand mysql, postgresql and sqlite3 database
4. Manage migrations and database activity

Module 13 – Rest API and JSON Parsing [4 Hours]

1. Data serialization
2. Django Rest Framework
3. Create REST API
4. Write parser for json data

Section 4 – Best Practices to Create a Web App with Django and Python [8 Hrs]

Module 15 – Project Creation And Deployment [8 Hours]

1. Create a blog website.

About Course

- If You Want To Take This Course **Online** , The Course fees Will be **3000 rupee/month**.
- If You Want To Take This Course **Offline**, The Course fees Will be **4000 rupee/month**.
- Course Duration – **TM 1- 5 Months i.e. 80 Hrs [72 Hours + 8 Hours (Capstone Project)]**
TM 2- 3.5 Months i.e. 56 Hrs [48 Hours + 8 Hours (Capstone Project)]
- Payment - (Strictly in MONTHLY system) and ONE-month advance, which will be, adjust in the last month of the course.
- Small group of Study (At-Least **10 students** & At-most **15 students** in ONE group).
- The Classes Will be taken **2 Days/Week and 2 Hours /Day**.
- **On Successful Completion of the Course along with Hands-on Assessment, Certificate will be Awarded.**
- **After Completion of the Course, INTERNSHIP on the same Domain Technology will be provided for doing hands-on work on real-life Industrial Project followed by Job Assistance(Reference for up to 3 Interviews) in IT/SW Industry.**
- **Both Theoretical & Hands-on Training will be Provided by Highly Qualified & IT Experienced Senior Professionals those are fully settled in IT Industry since long and having Job Referral capacities.**

If you are really interested for building a Career with Excellent hi-end Hands-on Studies followed by IT Internship & Job in Full Stack Web Development Using Python with Django Domain area in IT/SW Industry, then only Contact below mentioned contact details for Enrollment into the Course.

NOTE:

A. Training Module-1 - 80 Hrs [72 Hours + 8 Hours (Capstone Project)] - 5 Months

[Front-end Web Development(i.e. HTML, CSS, JavaScript & BootStrap) + Python Programming + Back-end Web Development with Django].

Prerequisites : Basic Programming concept like loops, conditions, functions etc.

B. Training Module-2 - 56 Hrs [48 Hours + 8 Hours (Capstone Project)]- 3.5 Months

[Python Programming + Back-end Web Development with Django].

Prerequisites : HTML, CSS (Good Knowledge), JavaScript & BootStrap.

(Basic Programming concept like loops, conditions, functions etc.)