

Professional Python/Django Development

Course Duration: 64 hours Total Class: 32

Tools: Python, Django, Vs Code, Git Base

Class #1

Environment Setup, Variable, Data Type & Type Casting

- 1. Python environment setup
- 2. Basic syntax of python (indentation, comments)
- 3. Python variable
- 4. Data type in python

Assignment-#1:

Class #2

String of python

- 1. Type casting in python
- 2. Introduction & declaration of string
- 3. Accessing values & updating string
- 4. String formatters & escape sequences
- 5. String functions and operations
- 6. Most important built-in methods of string

Assignment-#2:

Class #3

Operators & Condition

- 1. Operators & Operant
- 2. Arithmetic, comparison & logical operators
- 3. Assignment, membership operators
- 4. If, if....else, & if...elif...else statement
- Nested if & nested if..else statement

Assignment-#3:

Class #4

Loops in python

- 1. For loop statement
- 2. While loop statement
- 3. Infinite & nested loop statement
- 4. Break, continue & pass statement

Assignment-#4:

Class #5

Built-in Data Structure in Python

- 1. List in python
- 2. Indexing, slicing & negative indexing in python
- 3. Tuple & sets in python
- 4. Dictionary in python

Assignment-#5:

Class #6

Functions in python

- 1. Define a function
- 2. Function arguments
- 3. Recursion in python
- 4. Built-in python
- 5. Anonymous function or lambda expression

Assignment-#6:

Class #7

File & Exception Handling

- 1. Open, read & write a file
- 2. Errors vs exception
- 3. Try...except & try...except...else statement
- 4. Try...except...finally statement

Assignment-#7:

Class #8

Module & Package

- 1. Module vs package
- 2. Create & uses a module
- 3. Built-in modules (datetime module)
- 4. Create & uses package
- 5. pip & PyPI

Assignment-#8:

Class #9

Class, Objects & Inheritance (OOP)

- 1. Class & objects
- 2. Inheritance in python
- 3. Polymorphism in python
- 4. Constructors & Destructors in python

Assignment-#9:

Class #10 Git & GitHub

- 1. Git vs github
- 2. Install & configure git
- 3. Create github account
- 4. Create repository & deploy on github
- 5. Fundamental bash commands

Assignment-#10:

Class #11	HTML-5
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- 6. Basic introduction & setup
- 7. HTML elements & color
- 8. HTML text formatting
- 9. HTML list & link
- 10. HTML image & Form
- 11. HTML media & head

Assignment-#11:

Class #12 CSS-3	
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- 1. Basic introduction & setup
- 2. Font, text & background
- 3. Padding, margin, outline & border
- 4. Position, opacity, id, class & comment
- 5. List, link, image & text effect
- 6. Media query, transform, translate & scale

Assignment-#12:

Class #13 Bootstrap-5 (part- 01)	
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- 1. Basic introduction & setup
- 2. Customize (color)
- 3. Layout
- 4. Content
- 5. Forms

Assignment-#13:

Class #14 Bootstrap-5 (part- 02)

- 1. Components
- 2. Helpers
- 3. Utilities
- 4. Extends
- 5. Design a simple template

Assignment-#14:

Class #15 Installation & Configuration Django

- 1. Create & active virtual environment
- 2. Install necessary package
- 3. Create project and app
- 4. Configuration app with project
- 5. Write some function and run the project

Assignment-#15:

Class #16 Static files, URL & Template	
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- 1. Configuring static files
- 2. URL Configuration
- 3. Create template object
- 4. Load template files
- 5. Template filters

Assignment-#16:

Class #17

- 1. Creating a django model
- 2. Understanding models fields & options
- 3. Adding data to the model
- 4. Register database table into admin panel
- 5. Table naming conventions

Assignment-#17:

Class #18 Form, Vie	w & Template
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- 1. Create a model form
- 2. Create a View for handling form data
- 3. Template Tags & for loop

- 4. Template Inheritance
- 5. Getting form data

Assignment-#18:

Class #19	Complete CRUD operation with FBV Views
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- 1. Create Model & form
- 2. Understanding function base views
- 3. Insert & List show same template
- 4. Design Template
- 5. Write view for CRUD

Assignment-#19:

Class #20	Complete TODO App with Generic Views

- 1. Create Model & form
- 2. Understanding Generic views
- 3. Import Necessary module
- 4. Design Template for Multi-user
- 5. Write view for CRUD

Assignment-#20:

Class #21	Relationships in Django Models
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- 1. What is ORM?
- 2. One-To-One Relationships
- 3. Many-To-One Relationships
- 4. Many-To-Many Relationships

Assignment-#21:

Class #22	E-commerce project setup	
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- 1. Create environment
- 2. Create project folder
- 3. Create app folder
- 4. URL configuration
- 5. Template rendering main project
- 6. Create static folder

Assignment-#22:

Class #23	User Authentication System
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- 1. Creating users
- 2. Creating superusers
- 3. Changing passwords
- 4. Authenticating users

Assignment-#23:

Class #24 Customer Profile Creation

- 1. Profile template design
- 2. Customer profile create
- 3. Modify customer dashboard
- 4. Image upload on dashboard
- 5. Changing customer password

Assignment-#24:

Class #25 Product show, Ck-editor, Sweetalert2
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- 1. Home page product show
- 2. Uses of sweetalert2
- 3. Load More button
- 4. Learn about crispy form
- 5. Useful uses of Ck-Editor

Assignment-#25:

Class #26

- 1. Product Details
- 2. Related Product Show
- 3. Using Q Objects
- 4. Product Search
- 5. Multiple Search

Assignment-#26:

Class #27 Add to Cart & Remove, Quantity Increme	nt & Decrement
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- 1. E-commerce Functionality
- 2. Add to Cart
- 3. Remove From Cart
- 4. Quantity Increment
- 5. Quantity Decrement

Assignment-#27

Class #28

Cart Summary, Checkout, SSL Commerce

- 1. Cart Summary
- 2. Checkout Order
- 3. Order Confirm(Cash on Delivery and SSL Commerce)
- 4. Order History
- 5. Order History Details

Assignment-#28:

Class #29

Wishlist Add & Delete, Form Validators

- 1. Product Add to Wishlist
- 2. Wishlist Product List
- 3. Delete From Wish List
- 4. Custom form validators
- 5. Form validation using clean method

Assignment-#29:

Class #30

Social Share, Whatsapp, Messenger Plugin

- 1. Social share button
- 2. Add whatsapp chat plugin
- 3. Messenger chat plugin
- 4. Facebook comment share & like plugin

Assignment-#30:

Class #31

MySQL & Django Model

- 1. Retrieve & Delete Record
- 2. Understanding QuerySets
- 3. Managing related records
- 4. Download Xampp & setup
- 5. Connect with MySQL database

Assignment-#31:

Class #32

Deploying Django Applications

- 1. What is deployment?
- 2. Deploying Django App at product level
- 3. Install heroku CLI
- 4. Virtual Environment
- 5. Introduction to HEROKU

- 6. Deploy at HEROKU
- 7. pip freeze
- 8. Deployment process in C-panel

Assignment-#32:

Thank You