



UNIVERSE IT INSTITUTE

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

Assignment- #1:

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

Assignment- #2:

Class #3	Operators & Condition
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1. Operators & Operands
2. Arithmetic, comparison & logical operators
3. Assignment, boolean & membership operators
4. If, if....else, & if...elif...else statement
5. Nested if & nested if..else statement

Assignment- #3:

Class #4	Loops in python
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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
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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
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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
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1. Open, read & write a file
2. Managing directory, & rename a file
3. Errors vs exception
4. Try...except & try...except...else statement
5. Try...except...finally statement

Assignment- #7:

Class #8	Module & Package
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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)
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1. Class & objects
2. Methods vs functions & magic (dunder) methods
3. Inheritance in python
4. Polymorphism in python
5. Constructors & Destructors in python

Assignment- #9:

Class #10	Git & GitHub
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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)
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1. Components
2. Helpers
3. Utilities
4. Extends
5. Design a simple template

Assignment- #14:

Class #15	Installation & Configuration Django
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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	Database Model
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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, View & 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	MySQL & Django Model
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1. Retrieve & Delete Record
2. Understanding QuerySets
3. Managing related records
4. Download Xampp & setup
5. Connect with MySQL database

Assignment- #19:

Class #20	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- #20:

Class #21	Complete TODO App with Generic Views
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1. Create Model & form
2. Understanding Generic views
3. Import Necessary module
4. Design Template for Multi-user
5. Write view for CRUD

Assignment- #21:

Class #22	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- #22:

Class #23	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- #23:

Class #24	User Authentication System
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1. Creating users
2. Creating superusers
3. Changing passwords
4. Authenticating users

Assignment- #24:

Class #25	Customer Profile Creation
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1. Profile template design
2. Customer profile create
3. Modify customer dashboard
4. Image upload on dashboard
5. Changing customer password

Assignment- #25:

Class #26	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- #26:

Class #27	Product details, Product search
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1. Product Details
2. Related Product Show
3. Using Q Objects
4. Product Search
5. Multiple Search

Assignment- #27:

Class #28	Add to Cart & Remove, Quantity Increment & Decrement
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1. E-commerce Functionality
2. Add to Cart
3. Remove From Cart
4. Quantity Increment
5. Quantity Decrement

Assignment- #28:

Class #29	Cart Summary, Checkout, SSL Commerce
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1. Cart Summary
2. Checkout Order
3. Order Confirm(Cash on Delivery and SSL Commerce)
4. Order History
5. Order History Details

Assignment- #29:

Class #30	Wishlist Add & Delete, Form Validators
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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- #30:

Class #31	Social Share, Whatsapp, Messenger Plugin
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1. Social share button
2. Add whatsapp chat plugin
3. Messenger chat plugin
4. Facebook comment share & like plugin

Assignment- #21:

Class #32	Deploying Django Applications
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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:



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