# PYTHON

## Introduction to Python

- Overview of Python
- Installing Python
- Basic Syntax and Data Types
- Python syntax basics: variables, data types, and operators

## Control Flow

- Conditional statements: if, elif, else
- Looping constructs: for, while
- Break and continue statements

## Data Structures and Collections Datatype

- Conditional statements: if, elif, else
- Looping constructs: for, while
- Break and continue statements

## Functions and Modules

- Defining Functions
- Parameters and Arguments
- Returning Values
- Lambda Functions
- Map, Filter
- Modules and Packages

## Object-Oriented Programming (OOP)

- Classes and Objects
- Attributes and Methods
- Inheritance and Polymorphism
- Encapsulation and Abstraction

## File Handling

- Reading, Writing Files, Append and Delete
- Working with CSV and JSON Files

## Error Handling

- Exceptions and Errors
- Try-Except Blocks
- Finally Block

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- Exceptions and Errors
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## Multithreading

- Threading Module
- Thread Creation
- Starting and Joining Threads
- Thread Synchronization
- Daemon Threads

# WEB DESIGN

## HTML

- Introduction To Web Development. Overview Of Html, CSS, JavaScript. Setting Up Development Environment.
- Introduction To Html: Structure, Tags, Elements. Creating Basic Html Documents. Part-1
- Introduction To Html: Structure, Tags, Elements. Creating Basic Html Documents. Part-2
- Html Forms And Input Elements. Understanding Form Elements Such As Input, Text area, Select, Etc. Part-1
- Html Forms And Input Elements. Understanding Form Elements Such As Input, Text area, Select, Etc. Part-2

## CSS

- Introduction To Css: Syntax, Selectors. Basic Styling Concepts Including Colors, Fonts, And Backgrounds. Part-1
- Introduction To Css: Syntax, Selectors. Basic Styling Concepts Including Colors, Fonts, And Backgrounds. Part-2
- Css Box Model. Understanding Padding, Margin, Border. Part-1
- Css Box Model. Understanding Padding, Margin, Border. Part-2
- Css Layouts. Introduction To Positioning, Float, And Display Properties

# DJANGO

## Introduction to Django

- Overview of Django framework
- Installing Django
- Setting up a Django project

## Django Views

- Creating Views
- Function-Based Views (FBVs) vs. Class-Based Views (CBVs)
- URL Mapping
- Django messages

## Templates

- Django Template Language (DTL)
- Template Inheritance
- Jinja Tags
- Context Data

## Django Models

- Creating Models
- Fields and Field Options
- Migrations and Migrate
- Using Foreign key
- Custom User Model

## Forms

- HTML Forms
- Django Forms
- Form Validation

## Django Admin

- Overview of Django Admin interface
- Customizing Django Admin

## Django ORM

- QuerySets
- Filtering and Get, All Querying Data
- Aggregation and Annotations

## Authentication and Authorization

- User Authentication
- Permissions and User Roles

## RESTful APIs with Django REST Framework

- Introduction to REST APIs
- Setting up Django REST Framework
- Creating RESTful endpoints
- Api Using and Integration

## Capstone Project Development

## Deployment

- Preparing Django application for deployment
- Deploying Django application on platforms PythonAnywhere