GeeksforGeeks

PYTHON BACKEND DEVELOPMENT

Live

django

Detailed
Course Syllabus

CONTENTS

Week 01

Session : 01

Installation and Introduction to Django

- Learn about python programing (inbuilt data structure & Object oriented Programing)
- Learn and explore various web dev tools like VsCode Editor, Git & Github,
- Sqlite3, Postman, Virtual Environment, DBeaver, and Other Essential Tools
- Install Django framework and it's dependencies
- Setup Django environment
- Create your first sample Django project
- Learn about project structure in Django

Session : 02

Django Admin, Commands and Shell

- Acquire the knowledge to reuse initial built-in Django applications
- Learn about Django admin
- Learn about various Django Commands
- Learn about Django Shell

Week 02

Session : 01

Routing and Views in Django

- Map web URLs to view functions
- Familiarize with various HTTP methods, including GET, POST, PUT/PATCH, and DELETE
- Create simple views in django with HTTP response or JSON response and learn about different status codes.

Session : 02

Templates

- Build Dynamic Django templates that display the HTML GUI seen by clients, using server-side Python
- Add conditions and loops in templates to avoid repetitions, build common layouts

GeeksforGeeks

CONTENTS

Week 03

Session : 01

Databases and Model layer

- Learn about connecting to a relational database in Django.
- Learn about Django migrations, and how to use them to update your database schema.
- Explore Django ORM (Object Relational Mapping). Understand Django models, relationship between models, learn how to query on models

Session : 02

Django Forms

- Understand the Django approach of building, handling, validating and submitting HTML forms

Week 04

Session : 01

Exciting Project - Social Media Clone (PART 1)

- Creating database design and schema for the app
- Exploring various use cases for the app and designing user flow related to it
- Developing user authentication for the app
- Make exciting features such as upload social media post including image with some content and tags

Session : 02

Exciting Project - Social Media Clone (PART 2)

- Develop like a post feature or comment on post feature
- Search post on the basis of title and tags
- Develop a feature to filter / order posts on the basis of likes or comments
- Bookmark your favourite posts

GeeksforGeeks

CONTENTS

CONTENTS

- Learn to give access or permissions to users on the basis of different user roles
- Send emails to users
- User roles based permissions

Week 07

Session : 01

Filtering, Pagination and Throttling (For Ecommerce Project)

- Create an API list view
- Filter API list view using query params
- Implement search feature inside API list view
- Paginate API list view
- Control request rate from client side using Throttling

Session : 02

API Documentation, Integration and Testing

- Learn to document API's
- Create module wise API collections
- API integrations and testing

Week 08

Session : 01

Django Cronjobs, Workers, Signals, Job Queues and Testing

- Learn about these concepts in Django
  - Cronjobs
  - Workers
  - Signals
  - Job Queues
  - Integration of other technologies with Django such as celery/kafka
  - Testing in django using Unit test cases and API Request Factory

Session : 02

Deployment, Interview questions and Resume Building

- Learn Deployment of django app using Render
- Interview questions on Django and Django Rest Framework
- Learn how to build a specific resume for Django developer role