

Django

Class 1

Backends, APIs, Django REST Framework

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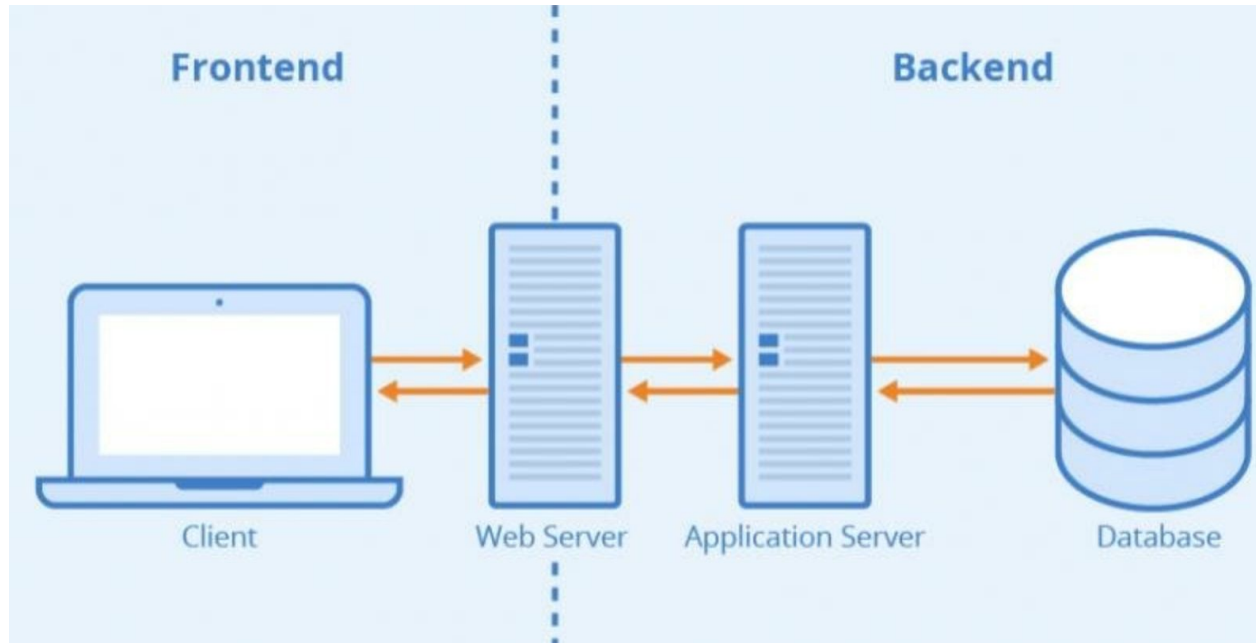
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01.

Backends

What is a backend?

- Behind-the-scene controller
- Server-side logic dealer
- Business-logic dealer
- Data processor
- Data manager
- Speaker on your behalf
- Front-end info bearer



02.

APIs

What is an API?

- Set of rules and protocols that define how different software components should interact with each other.
- **Intermediary** between the front-end and the backend
- Allowing them to communicate and **exchange data** seamlessly
- Enabling the creation of powerful and **interconnected** digital experiences

Challenges in Building Backends and APIs

- Security and Authentication
- Performance and Optimization
- Versioning and Compatibility
- Documentation and Onboarding

03.

Django REST Framework

Framework?

- A structure that you can build software/website/app on.
- It serves as a foundation, so you're not starting entirely from scratch.

Django Rest Framework

- Django Rest Framework (DRF) is a powerful and flexible toolkit for building **web APIs** with Django, a popular Python web framework.
- DRF simplifies the process of creating APIs by providing a comprehensive set of tools and features that streamline API development.

Why DRF?

- Ease of use
- Comprehensive documentation
- Robust feature set, which includes serialization, authentication, filtering, and pagination
- User-friendly web-browsable API

Key Features

- Serialization and Deserialization
- Authentication and Permissions
- Filtering, Sorting, and Pagination

Building with DRF

1

Define Models

Start by defining your Django models, which represent the data structures and relationships in your application.

2

Create Serializers

Use DRF's serializers to convert your Django models into a format that can be easily transmitted over the network, such as JSON.

3

Design API Views

Implement your API views using DRF's generic view classes or create custom views to handle specific functionality.

4

Configure Routing

Set up your API's URL routing using DRF's routers and URL patterns, allowing clients to access your API endpoints.

04.

Installing Django and DRF

Official Instructions

- <https://www.django-rest-framework.org/tutorial/quickstart/>

05.

Recap and QA

Open floor for questions and clarifications

Thank you.

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