



Airbnb Clone Backend Project



Objective

The backend for the Airbnb Clone project is designed to provide a robust and scalable foundation for managing user interactions, property listings, bookings, and payments. This backend supports all core features of Airbnb, ensuring a smooth and secure experience for users and hosts.



Project Goals

- **User Management:** Secure registration, login, and profile management.
 - **Property Management:** Host property listings with CRUD capabilities.
 - **Booking System:** Reserve properties, manage booking details.
 - **Payment Processing:** Handle and record payment transactions.
 - **Review System:** Allow users to leave reviews and ratings.
 - **Data Optimization:** Ensure fast, efficient data handling.
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Team Roles



Backend Developer

Implements API endpoints, business logic, and maintains REST/GraphQL interfaces.



Database Administrator

Designs schemas, manages migrations, handles indexing and optimization.



DevOps Engineer

Sets up Docker, manages CI/CD pipelines, monitors deployments and scaling.



QA Engineer

Writes and runs automated and manual tests to ensure backend stability.



Technology Stack

| Technology | Purpose |
|-----------------------|---|
| Django | High-level Python framework for building robust web backends. |
| Django REST Framework | For building RESTful APIs with powerful features. |
| PostgreSQL | Relational database for storing structured project data. |
| GraphQL | Flexible query language for advanced frontend interaction. |

| Technology | Purpose |
|-------------------------------|--|
| Celery | Handles asynchronous background tasks like emails or payments. |
| Redis | In-memory data store for caching and session management. |
| Docker | Containerizes the project for consistent development and deployment. |
| CI/CD (GitHub Actions) | Automates testing and deployment processes. |