Design Document

# Functional Requirements

* As a developer, I want to interact with the API using RESTful endpoints so that I can easily integrate it with my applications.
* As a user, I want to authenticate with the API using API keys or OAuth2 so that I can access protected functionality.
* As an administrator, I want to perform CRUD operations on core entities through the API so that I can manage data effectively.
* As a user, I want to filter, sort, and paginate API responses so that I can efficiently retrieve the specific data I need.
* As a user, I want to receive real-time notifications through webhooks when specific events occur so that I can stay informed and react promptly.
* As a developer, I want to ensure the API is robust and reliable by utilizing API versioning, health checks, and monitoring endpoints so that my applications can function consistently.

# Technical Requirements

* Backend technology stack and framework to be determined.
* Database schema design and data modeling to be finalized.
* Authentication and authorization mechanism to be implemented.
* API documentation and versioning strategy to be defined.

# Assumptions

* Payment service is already integrated
* Admin has access to all bookings

# Open Questions / Risks

* Query performance under load unknown