

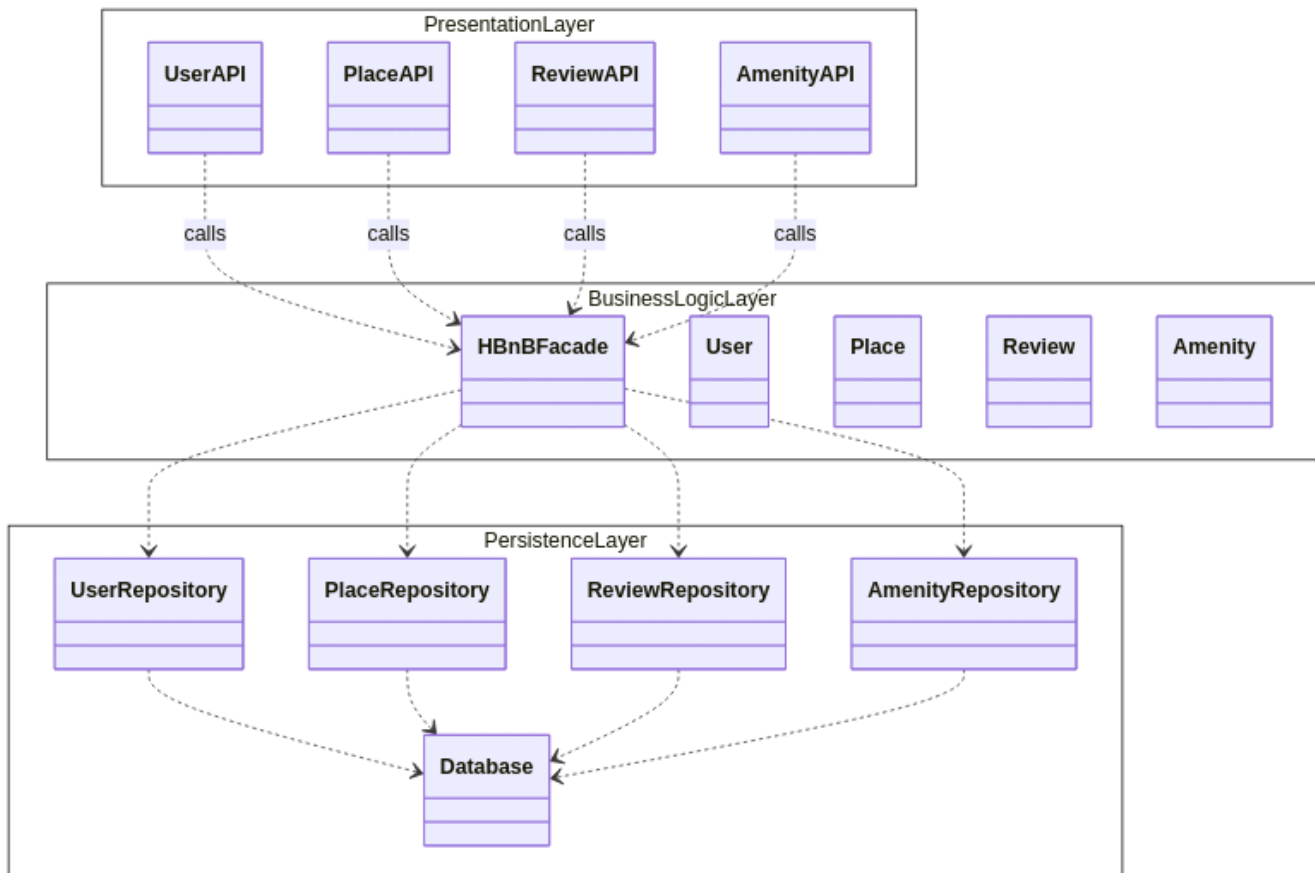
HBnB Part 1 Technical Documentation

Introduction

This document consolidates the UML artifacts for HBnB Part 1 into an implementation-ready reference. It describes the intended architecture, the business entities and their relationships, and the expected API interactions.

High-Level Architecture

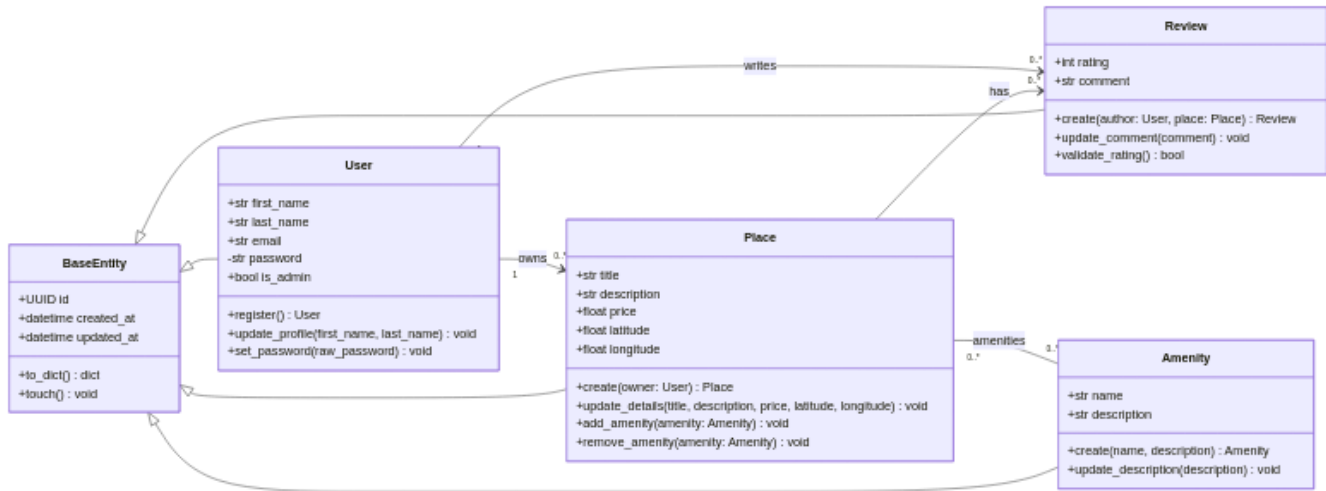
The package diagram describes the Presentation, Business, and Persistence layers and the facade that centralizes use-case orchestration.



Package diagram

Business Logic Layer

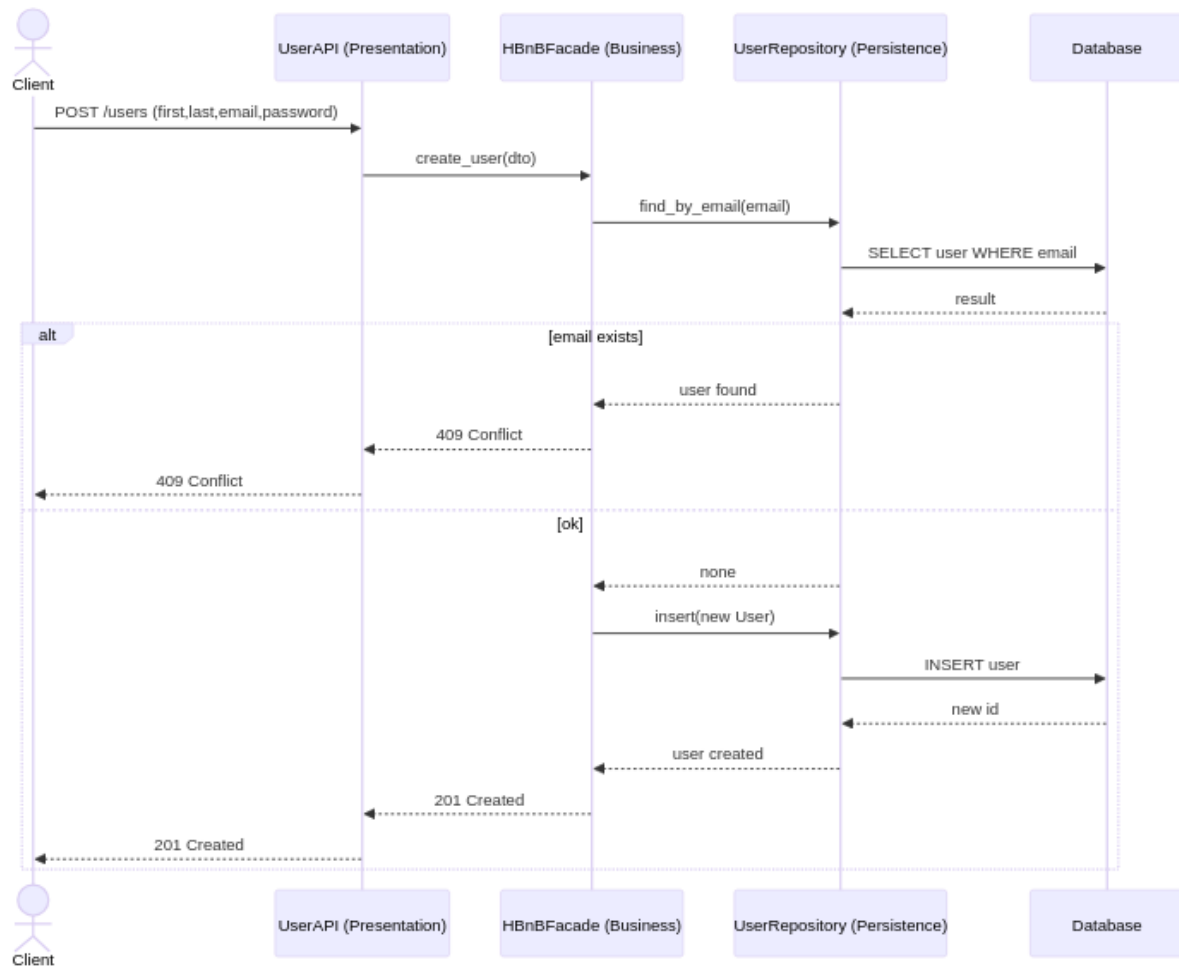
The class diagram shows the shared BaseEntity and the core entities used to model users, places, reviews, and amenities.



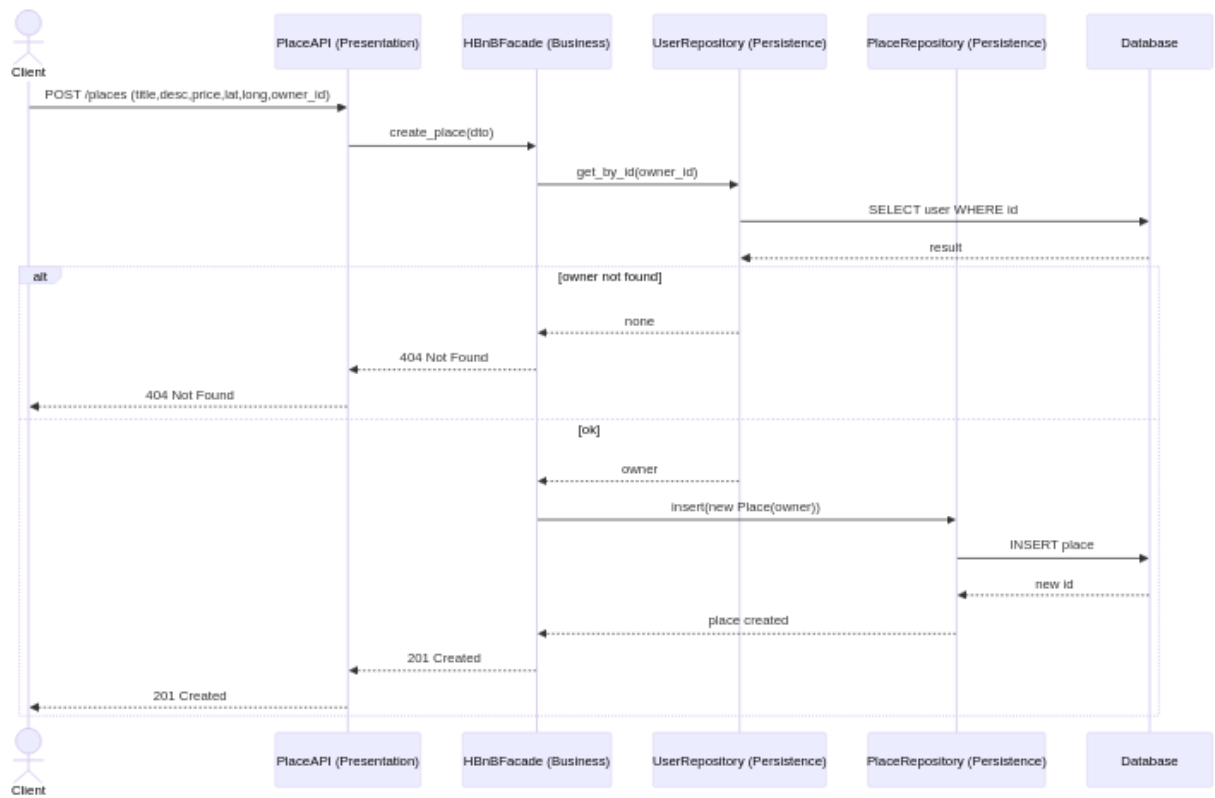
Class diagram

API Interaction Flow

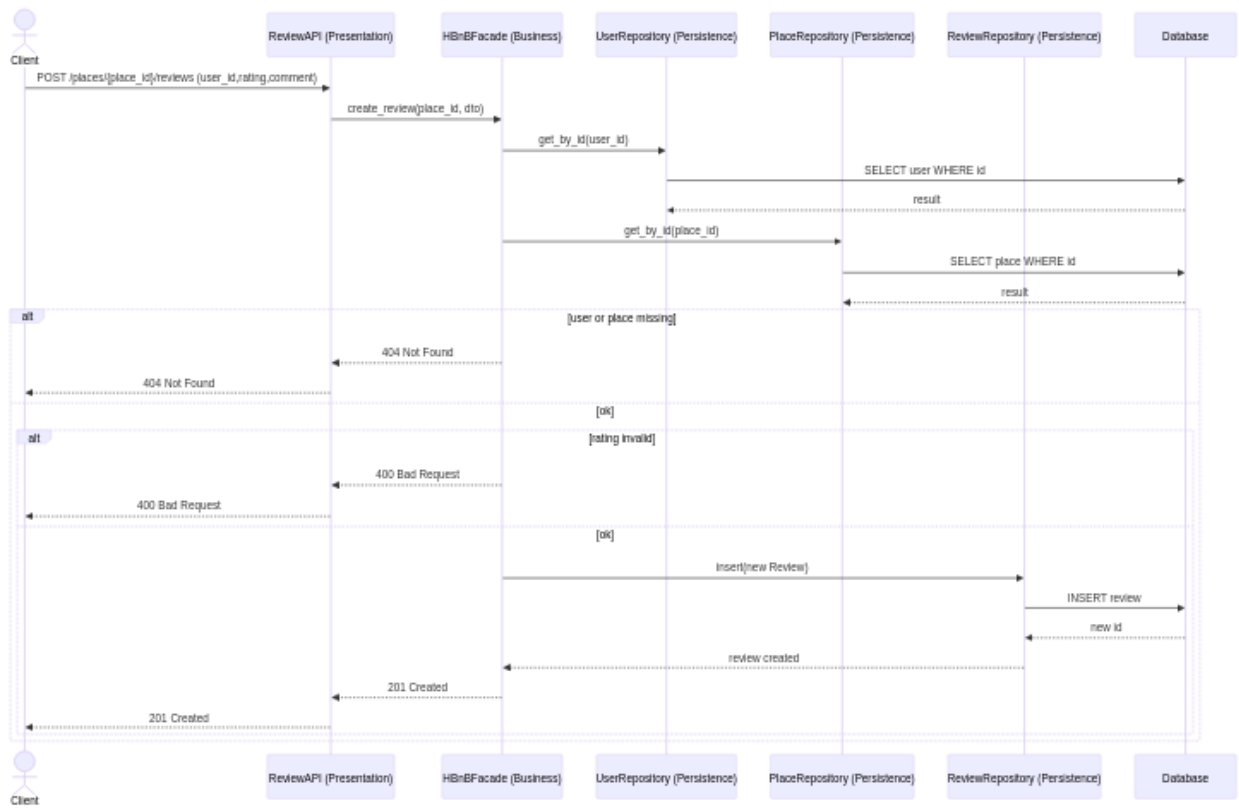
Each sequence diagram captures the facade-centered flow for key endpoints and the repository interactions that persist data.



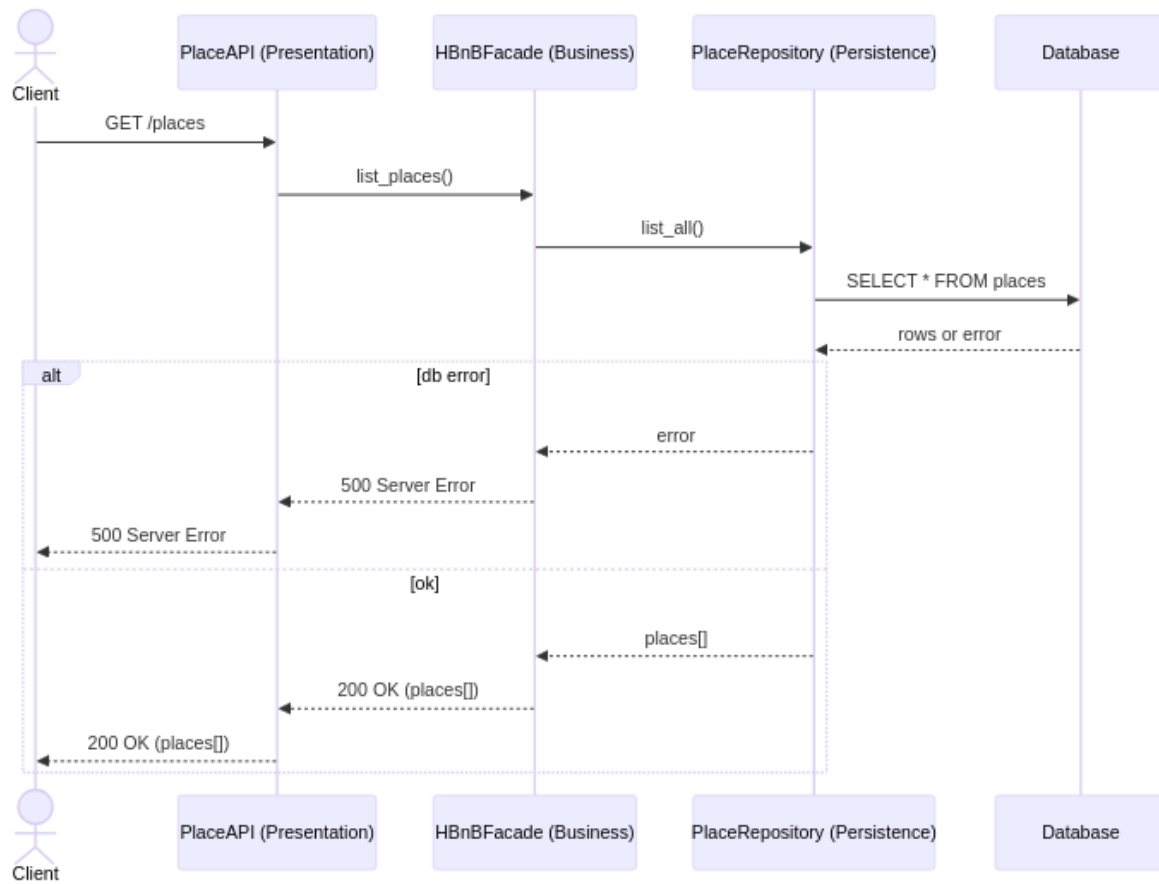
Sequence: User registers



Sequence: Place created



Sequence: Review submitted



Sequence: List places

Regeneration

PNG diagrams are regenerated from Mermaid source files in `part1/diagrams` using the `regenerate.sh` script, which calls `npx mmdc`. This PDF embeds the PNG exports from `part1/exports`.