**Hotel Room Booking API**

A RESTful API built with **ASP.NET Core** and **Entity Framework Core**, designed to manage hotel room bookings. It supports hotel and room management, availability checks, and booking creation. It is enhanced with **DTOs**, **AutoMapper**, and **SQLite** for persistent storage.

**Features**

- Search hotels by name

- View rooms by hotel or availability

- Book rooms with validation

- Retrieve booking details by reference

- Seed and reset test data

- Clean JSON responses via DTOs

- Persistent storage using SQLite

- Swagger UI for testing

**Tech Stack**

API Framework - ASP.NET Core Web API

ORM - Entity Framework Core

Database - SQLite

Mapping - AutoMapper

Deployment - Azure App Service (Free Tier)

**Project Structure**

HotelBookingAPI/

├── Controllers/

├── Models/

├── DTOs/

├── Services/

├── Data/

├── Mapping/

├── appsettings.json

└── Program.cs

Architecture

[Client] → [Controller] → [Service] → [DbContext] → [SQLite DB]

* Controllers handle HTTP requests
* Services encapsulate business logic
* DTOs ensure clean, cycle-free responses
* AutoMapper maps between entities and DTOs

DTO Overview

HotelDto - Exposes hotel info without rooms

RoomDto - Exposes room info without hotel

BookingDto - Exposes booking details

BookingRequestDto - Accepts booking input