Problem Statement

*Booking hotels online can be confusing and time-consuming for many travelers. Searching through multiple websites, comparing prices, and finding accommodations that meet specific needs often leads to frustration. Most booking platforms lack personalized recommendations and fail to provide real-time price optimizations based on user preferences.  
Our project,* ***Hotel-Reservations-Web****, aims to solve this problem by offering a* ***smart hotel booking platform powered by AI****, which helps users find the best hotel deals tailored to their preferences, budget, and travel dates.*

Business Case

*Traditional hotel booking sites and mobile apps often offer generic, non-customized results. They usually do not consider user-specific preferences like budget flexibility, amenity priorities, or best-value rankings.*

**Hotel-Reservations-Web** adds significant value by:

* **Using AI to recommend the best hotel options** based on price, location, and user needs.
* **Integrating real-time hotel data** through multiple APIs like docs.hotelapi.
* **Offering dynamic budget calculation** based on selected accommodations and duration of stay.

This system has strong potential to scale into a commercial solution or be embedded into existing travel platforms for better personalization and engagement.

Scope

**Target Users**

* Tourists
* Solo travelers
* Families looking for affordable accommodations

**Main Features**

* Smart hotel search powered by AI
* Personalized hotel recommendations based on input (budget, location, dates, etc.)
* Real-time hotel data integration via APIs
* Budget breakdown and filtering options
* Responsive design for web and mobile devices

Goals

1. Help users find the **best hotel deals** using AI algorithms.
2. Allow users to enter hotel search preferences, such as:
   * Destination
   * Check-in / check-out dates
   * Number of guests
   * Budget range
3. Integrate **real-time hotel data APIs** to provide accurate availability and pricing.
4. Ensure **user security** and account access through JWT-based authentication.
5. Deliver a **responsive and user-friendly UI** suitable for all devices.