Team Project Title: Smart Stay

**Team Members:** Daniel Gallagher, Eryk Gloginski, Donal Mc Ginty, Oksana Aleksandrovica

**Group:** Team 5

**Course:** BSc Computing

**Submission Date:** February 8th, 2023

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# Project Objective

**Product Type:** Website

The system's goals are to make it simple for customers to find and reserve hotel rooms while also giving hotel personnel a simplified way to manage reservations and guest data.

# Project Requirements

1. **User interface:** The system should have an easy-to-use interface for customers to search for and book rooms, as well as for hotel staff to manage reservations and customer information.
2. **Room availability and pricing:** The system should be able to display available rooms and their prices in real-time and should be able to handle multiple room types and pricing structures.
3. **Reservation management:** The system should allow customers to make reservations and allow hotel staff to view, edit and cancel reservations.
4. **Payment Processing:** The system should be able to process online payment methods (credit card, debit card, online banking, etc), dummy payment processing.
5. **Customer information management**: The system should allow customers to create profiles and store their personal information, such as contact details and reservation history.
6. **Reporting:** The system should provide various reports to staff, such as occupancy rates, revenue.
7. **Security:** The system should be secured to protect customer and hotel information from unauthorized access.
8. **Scalability:** The system should be designed to handle many users and reservations and should be able to scale up or down as needed.
9. **Review:** The system should allow customers to leave a review on the hotel.

# Benefits to the business

1. **Source of information:** Customers will visit the hotel website at least once to take a glance around what a hotel offers, to know the room rate, the facilities that the hotel provides, and more.
2. **Improved efficiency:** The system will help hotel staff to manage reservations and customer information in a centralized and streamlined way, reducing errors, and improving efficiency.
3. **Increase flexibility:** The system will allow customers to reserve rooms at any time, increasing the chances of making a booking and providing increased flexibility for customers.
4. **Increased marketing opportunities:** The system will provide the hotel with data on customer demographics, preferences, and behaviour, which will help the hotel to better target its marketing efforts and increase revenue.
5. **Better customer service:** The system will provide hotel staff with access to customer information, making it easier to provide personalized and efficient customer service.
6. **Cost Savings:** The hotel will save on labour costs by automating the reservation process.
7. **Enhanced reputation:** By providing a user-friendly and efficient reservation process, the hotel will enhance its reputation and attract returning customers.
8. **Increased control over rates and inventory:** The system will allow the hotel to better control the rates and inventory of its rooms, helping the hotel to optimize revenue.

# Skills and knowledge acquired by team members

* **Business Knowledge** - We learned about the hotel industry, including customer behaviour pricing strategies.
* **User Experience Design –** We learned about user-cantered design principles and techniques for improving the user experience.

# Reasons this project idea was chosen over others

* **Daniel** – I picked this idea because a lot of groups on our course picked the cinema idea and I thought we needed to pick a different idea to have some originality.
* **Oksana** – I picked this idea because I am interested in the hospitality industry, and I have a desire to make a positive impact by improving the reservation process.
* **Eryk -** I choose this idea because I have an interest in improving the customer experience and making the reservation process more user friendly and efficient. I have a passion for designing software solutions that meet the needs of the users.
* **Donal** – I choose this idea because I thought it a hotel system would give us more flexibility for what features we could put in the system. This would give me more experience with scaling up or scaling down the projects scope as time permits when we’re near the deadline.

# Use Case Diagram

Diagram

Description automatically generated

# Class Diagram

Diagram, schematic

Description automatically generated

Diagram, schematic

Description automatically generated

# Software Environment

Development environment(s):

Database Design

**Programming languages:** SQL, PHP, CSS, HTML, JavaScript

# External resources/inspirations

1. **Websites:**

* [www.trivago.ie](http://www.trivago.ie)
* [www.Booking.com](http://www.Booking.com)
* [www.tripadvisor.ie](http://www.tripadvisor.ie)
* [www.agoda.com](http://www.agoda.com)
* [www.marlinhotel.ie](http://www.marlinhotel.ie)

1. **Existing Software:**

* Oracle Opera
* Sabre Hospitality Solutions
* SiteMinder
* InnRoad
* Clock PMS