

Hotel Room Booking Management System



Key Takeaways/Learnings from the Program (HTD)



- .Net Core MVC Web Application
- .Net Core Web API with Entity Framework in ASP.NET Core Web Applications and Web API
- ASP.NET CORE Identity Entity Framework Core
- Application Deployment using Docker and Kubernetes

Project Description

The Hotel Room Booking Management System is a web-based application that streamlines the process of managing room reservations and guest information for hotels. The system provides customers with the ability to book available rooms while providing hotel staff with efficient tools to manage reservations and room inventory. Additionally, the system includes user authentication and profile management for users

Problem Statement of the Capstone Project

- Rapid growth in the number of customers seeking accommodation services
- Existing manual system is becoming inefficient, cumbersome, and time-consuming
- Lots of errors, double bookings, and customer dissatisfaction
- Need for a web-based hotel room booking application
- Provides a reliable and user-friendly platform for customers
- Enables easy and efficient searching, booking, and managing of hotel reservations for the hotel staffs

Approach Note

(How the candidate approached the program)

- ❖ Starting from developing of the system, we start by creating Business Requirements Documentation to support the systems functionality and requirements.
- ❖ Usage of Drawi.io for creating the Entity Relationship Diagram and Wireframe of the application
- ❖ Development of the application using ASP.Net Core MVC
- ❖ Development of Web API
- ❖ Deployment of the Application using Docker and Kubernetes

Acceptance Criteria

- ❖ User authentication using JWT tokens
- ❖ Multiple user roles with appropriate dashboards
- ❖ Room management including adding, updating, and deleting rooms and setting room details
- ❖ Booking management with availability checking and room booking
- ❖ User management including adding, updating, and deleting users and assigning user roles
- ❖ Profile management allowing users to update their information
- ❖ Error handling and security to protect user data
- ❖ Performance and scalability to handle high volumes of requests
- ❖ Thorough testing to ensure functionality and meet acceptance criteria

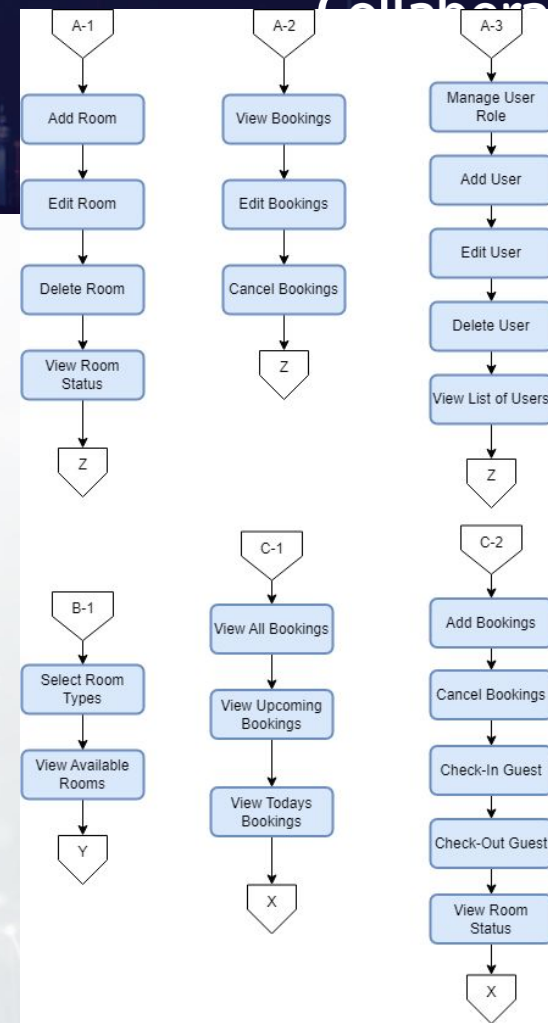
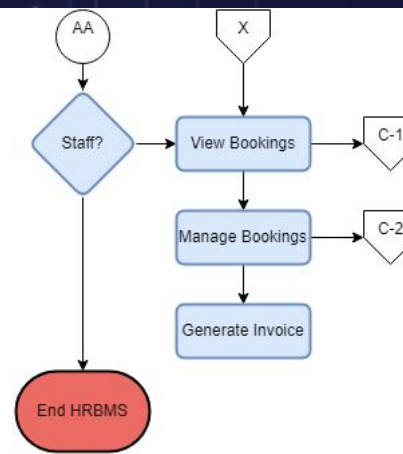
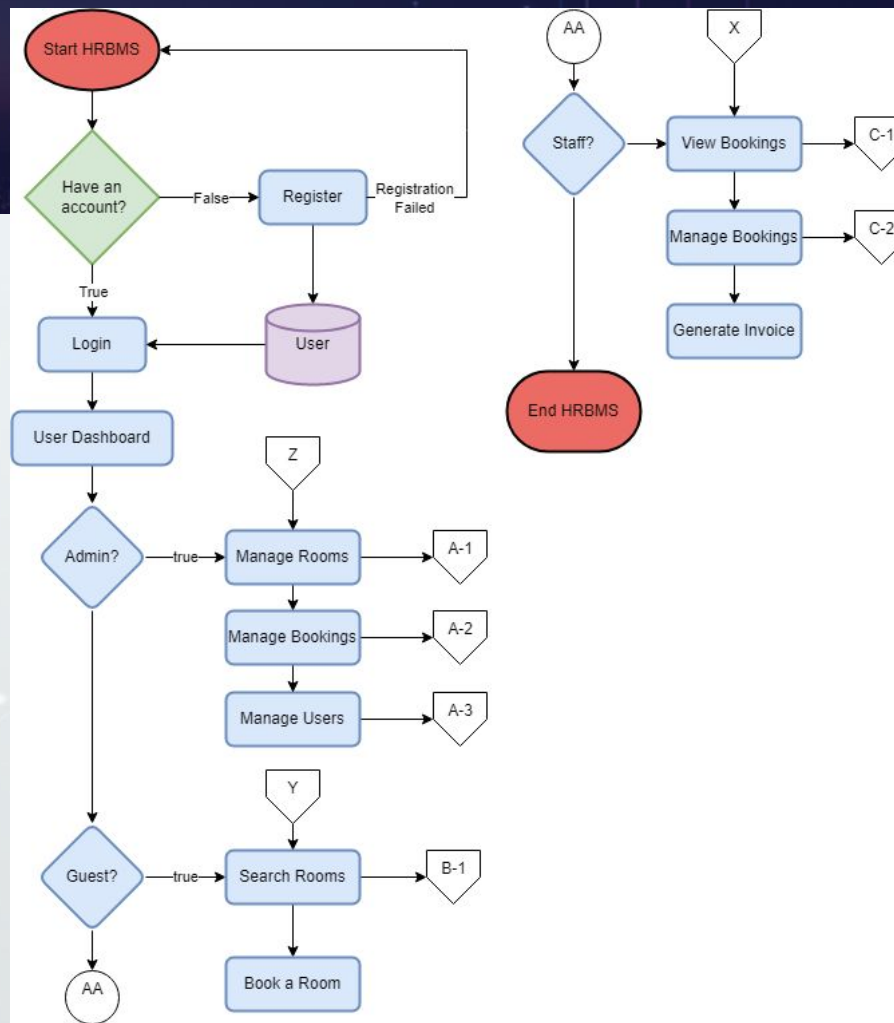
Project Scope

- ❖ User Management: login/logout, change password, manage profiles
- ❖ Admin Dashboard: manipulate room availability, user credentials, room categories, bookings
- ❖ Guest Dashboard: see all available rooms, book available room (no login required)
- ❖ Room Management: add, update, delete rooms from inventory
- ❖ Booking Management: book a room, provide personal and payment information

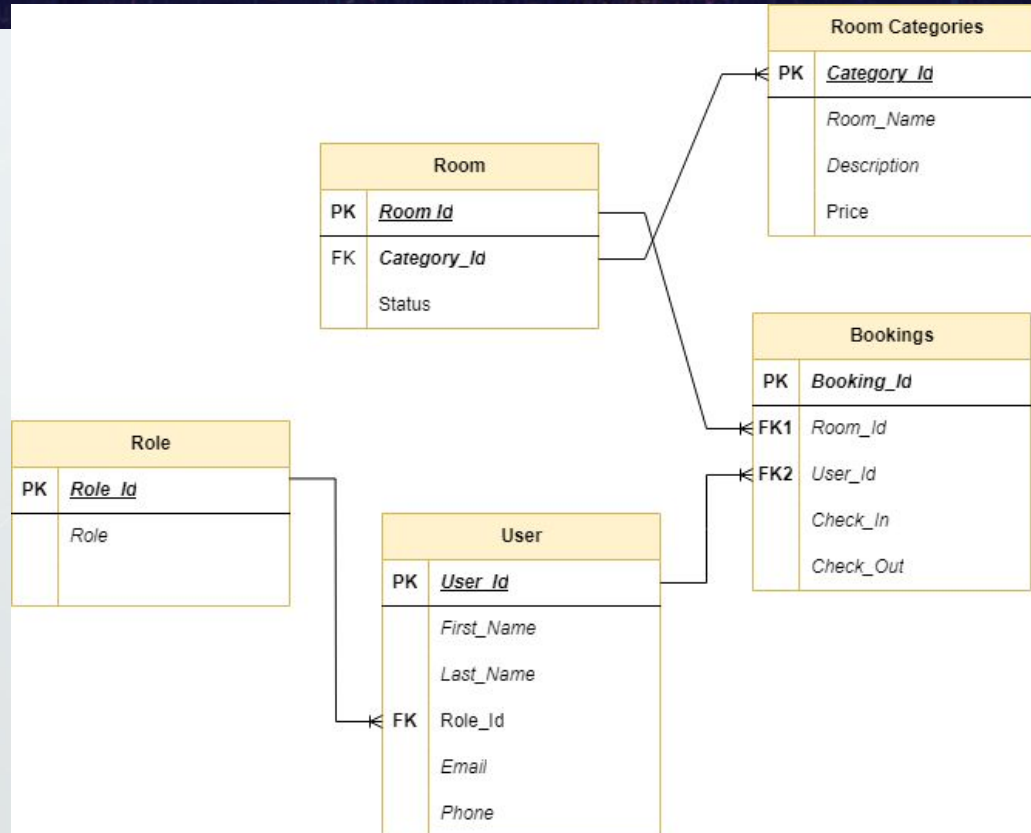
Out Of Scope

- ❖ Invoice for processing payments and Integrating with external third-party tools for managing payments like Gcash, Maya Wallet, Paypal, etc.
- ❖ Max occupancy for every rooms
- ❖ Book rooms base on selected location and date of stay
- ❖ Email Verification of the booking which will serve as virtual receipt

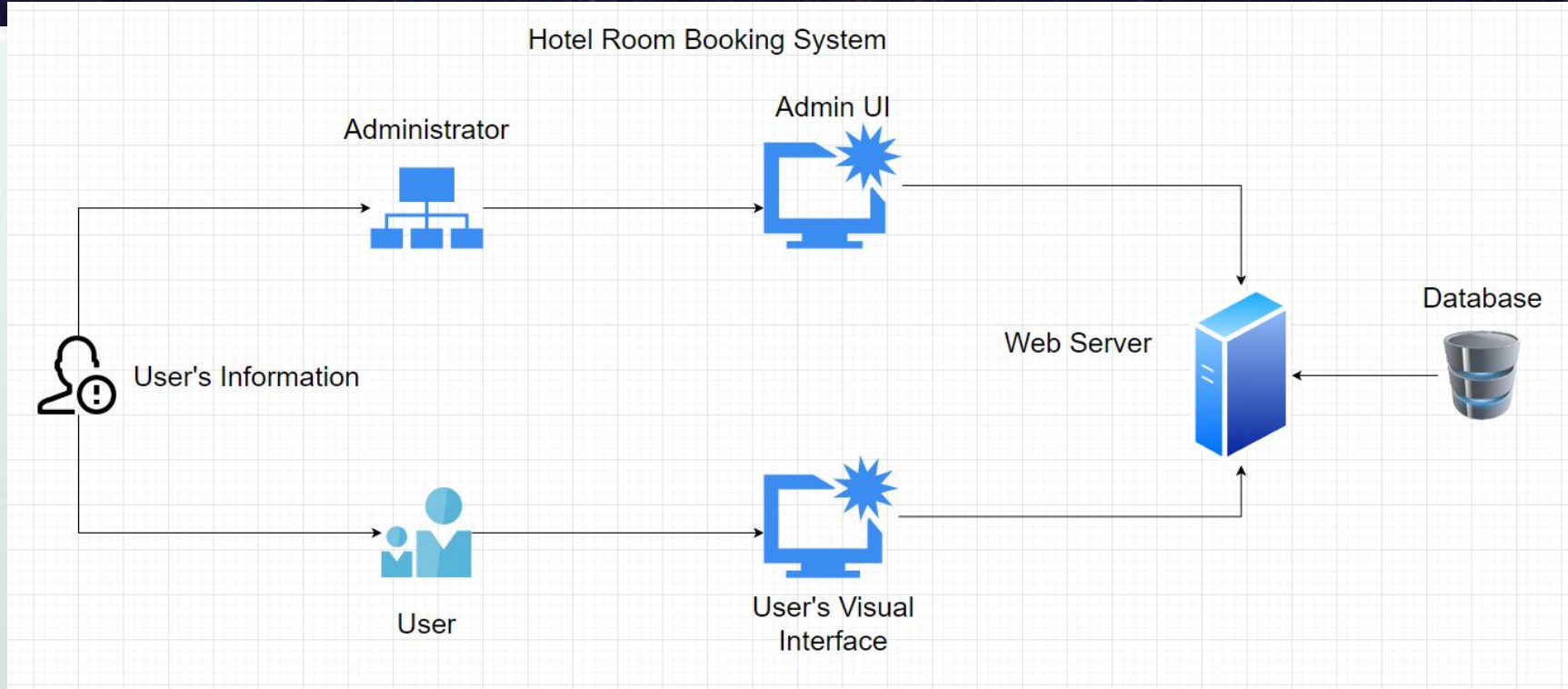
FlowChart



Entity-Relationship Diagram



System Architecture



Important areas of the Project with screenshots

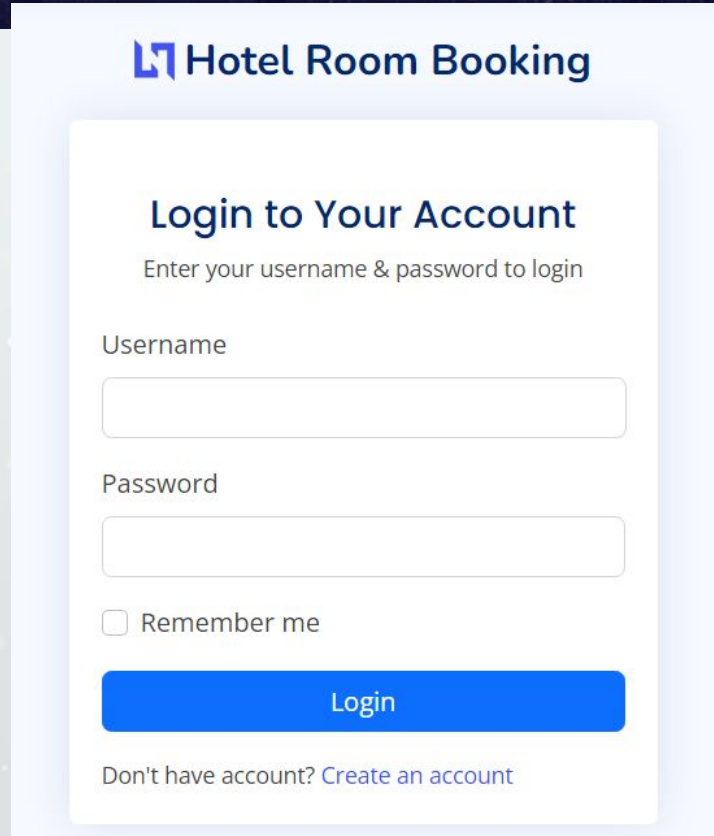
(Frontend, Database, Backend, Key Validations, Functionalities Etc.)

- ❖ Login, Register View
- ❖ Dashboard for User (Guest View)
 - Booking
 - Change Password
- ❖ Dashboard for Admin
 - Available Rooms (crud)
 - Room Types or Categories
 - Modifying Users (crud)
 - Booking
 - Rooms



Important areas of the Project with screenshots

(Frontend, Database, Backend, Key Validations, Functionalities Etc.)



Hotel Room Booking

Login to Your Account

Enter your username & password to login

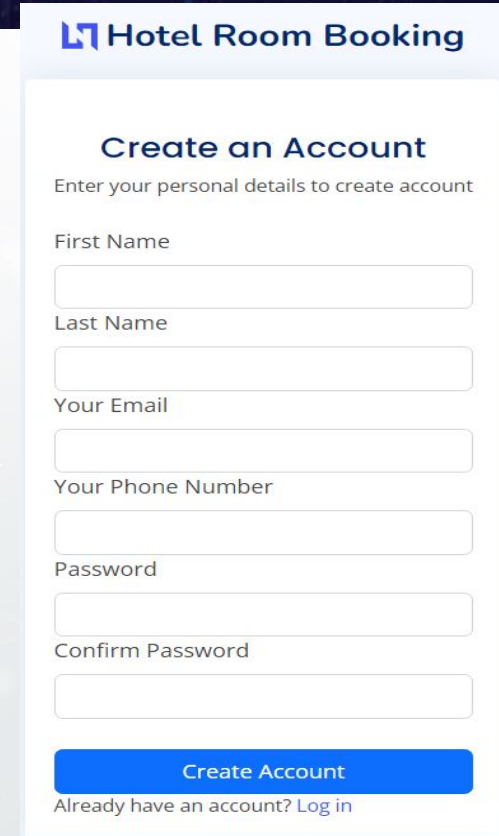
Username

Password

☐ Remember me

[Login](#)

Don't have account? [Create an account](#)



Hotel Room Booking

Create an Account

Enter your personal details to create account

First Name

Last Name

Your Email

Your Phone Number

Password

Confirm Password

[Create Account](#)

Already have an account? [Log in](#)

Important areas of the Project with screenshots

(Frontend, Database, Backend, Key Validations, Functionalities Etc.)



Deluxe

Spacious and luxurious accommodation option that offers guests an elevated level of comfort and sophistication.

₱2,000.00

[Book Now!](#)

Normal

Generally designed to accommodate one or two guests, with basic amenities such as a comfortable bed, a clean and well-appointed bathroom, and basic furnishings.

₱1,000.00

[Book Now!](#)

Standard

Design with 2 bedrooms and a kitchen

₱2,000.00

[Book Now!](#)

Important areas of the Project with screenshots

(Frontend, Database, Backend, Key Validations, Functionalities Etc.)

Current Password

Password

Confirm Password

Create

[Back to Home](#)

Important areas of the Project with screenshots

(Frontend, Database, Backend, Key Validations, Functionalities Etc.)

The screenshot displays the HoBoSys web application interface. The top navigation bar includes the HoBoSys logo, user links (User, Booking List, Room Categories, Rooms List), and user actions (Hello!, Sign Out, Change Password). A left sidebar contains an 'Add Forms' button. The main content area is titled 'Rooms' and includes a breadcrumb 'Home / Rooms'. Below the title is a search bar with the placeholder 'Enter Category Type' and a 'Search' button. A table lists room categories with columns for Room Status, Category, Price, and actions (Edit | Delete). The table contains three rows: Available Deluxe at ₱2,000.00, Available Normal at ₱1,000.00, and Available Standard at ₱2,000.00. A 'Back to Home' link is at the bottom of the table. The footer contains copyright information for the Hotel Room Booking System, designed by Ivhan and Mark.

HoBoSys User Booking List Room Categories Rooms List Hello! Sign Out Change Password

Rooms
Home / Rooms

Enter Category Type Search

| Room Status | Category | Price | |
|-------------|----------|-----------|---|
| Available | Deluxe | ₱2,000.00 | Edit Delete |
| Available | Normal | ₱1,000.00 | Edit Delete |
| Available | Standard | ₱2,000.00 | Edit Delete |

[Back to Home](#)

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Important areas of the Project with screenshots

(Frontend, Database, Backend, Key Validations, Functionalities Etc.)

User

[Home](#) / [User](#)

Search

| First Name | Last Name | Email Address | Phone Number | |
|------------|-----------|--|--------------|---|
| admin | admin | admin@gmail.com | 09217134700 | Edit Delete |
| ivhan | deleon | ivhan@gmail.com | 09213127187 | Edit Delete |
| pat | deleon | pat@gmail.com | 09213127187 | Edit Delete |
| mark | balagot | mark@gmail.com | 09217134700 | Edit Delete |

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Important areas of the Project with screenshots

(Frontend, Database, Backend, Key Validations, Functionalities Etc.)

Bookings

[Home](#) / [Bookings](#)**Check In****Check Out****Full Name****Room**[Back to Home](#)

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Important areas of the Project with screenshots

(Frontend, Database, Backend, Key Validations, Functionalities Etc.)

[Add Forms](#)

- [Add User](#)
- [Add Category](#)
- [Add Rooms](#)

Room Category

[Home](#) / [Room Category](#)

| Room Name | Room Description | Price | |
|-----------|--|-----------|---|
| Deluxe | Spacious and luxurious accommodation option that offers guests an elevated level of comfort and sophistication. | ₱2,000.00 | Edit Delete |
| Normal | Generally designed to accommodate one or two guests, with basic amenities such as a comfortable bed, a clean and well-appointed bathroom, and basic furnishings. | ₱1,000.00 | Edit Delete |
| Standard | Design with 2 bedrooms and a kitchen | ₱2,000.00 | Edit Delete |

[Back to Home](#)

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HoBoSys User Booking List Room Categories Rooms List Hello ! Sign Out Change Password

Rooms
Home / Rooms

Enter Category Type Search

| Room Status | Category | Price | |
|-------------|----------|-----------|---------------|
| Available | Deluxe | ₱2,000.00 | Edit Delete |
| Available | Normal | ₱1,000.00 | Edit Delete |
| Available | Standard | ₱2,000.00 | Edit Delete |

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Conclusion

The Hotel Room Booking Management System is an efficient and effective tool for managing hotel room reservations, guest information. It provides a range of features to help hotel staff manage guest bookings and improve the overall guest experience. With its robust security measures, the system ensures that user data is protected at all times.



Thank You