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 Kubernets

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

❖ 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

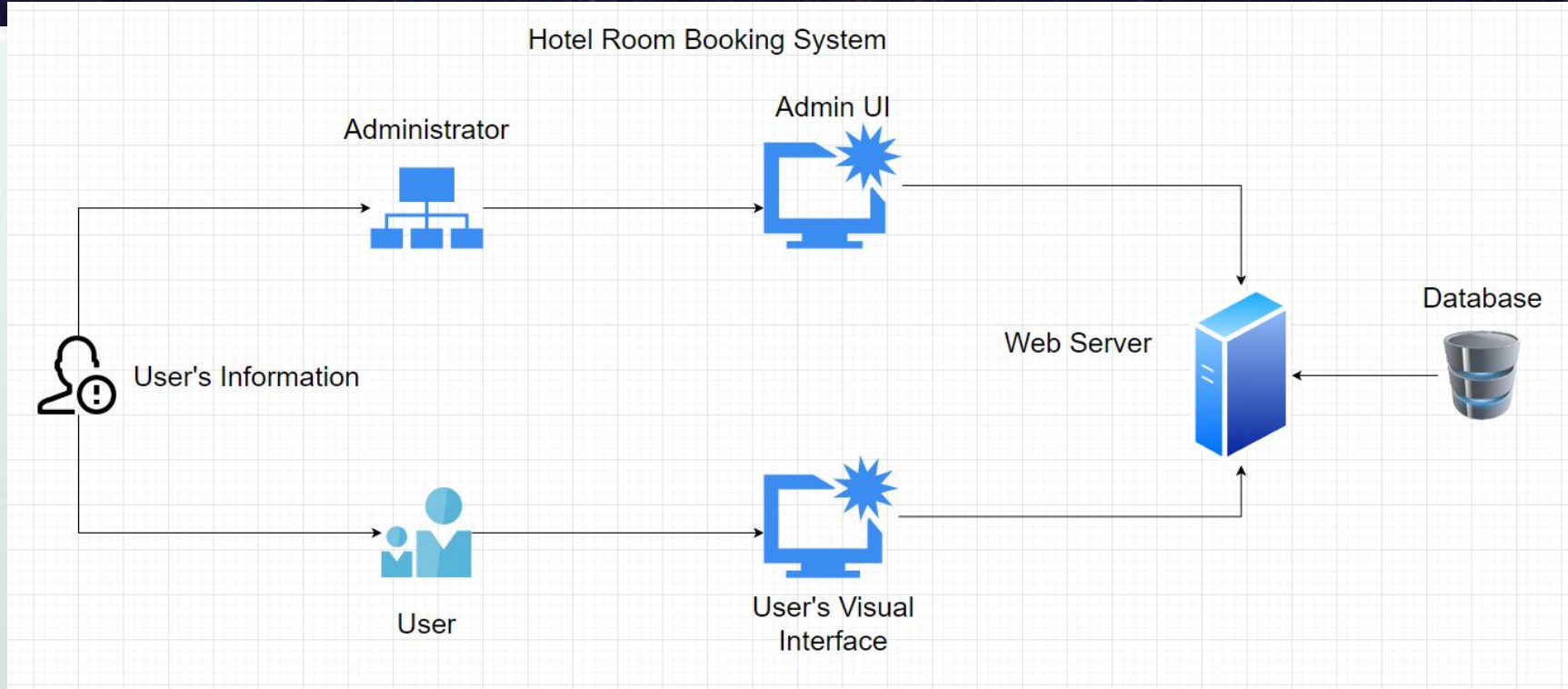❖ Email Verification of the booking which will serve as virtual receipt

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FlowChart
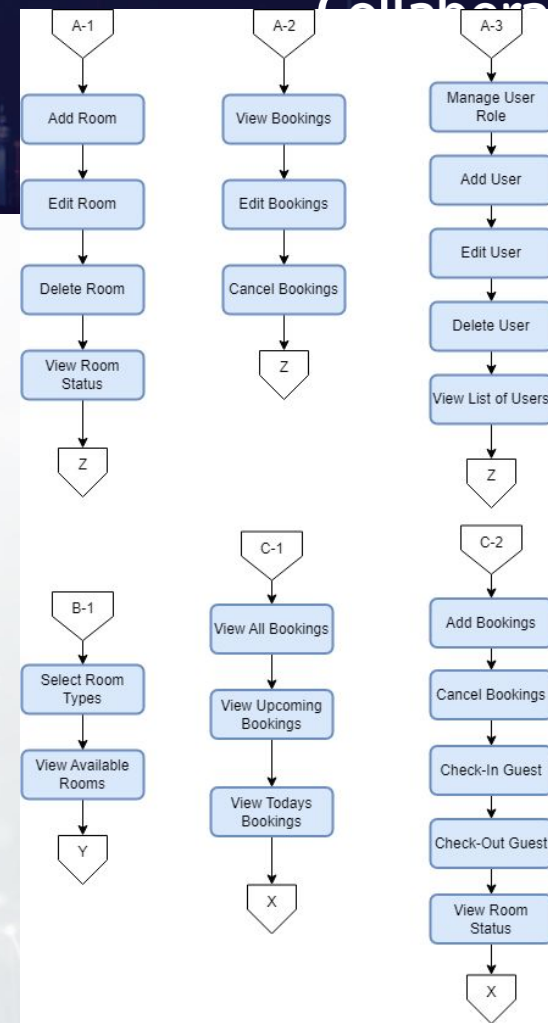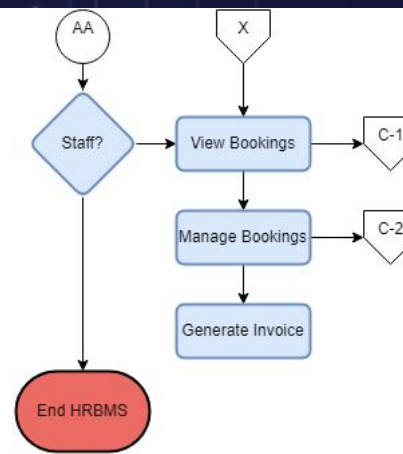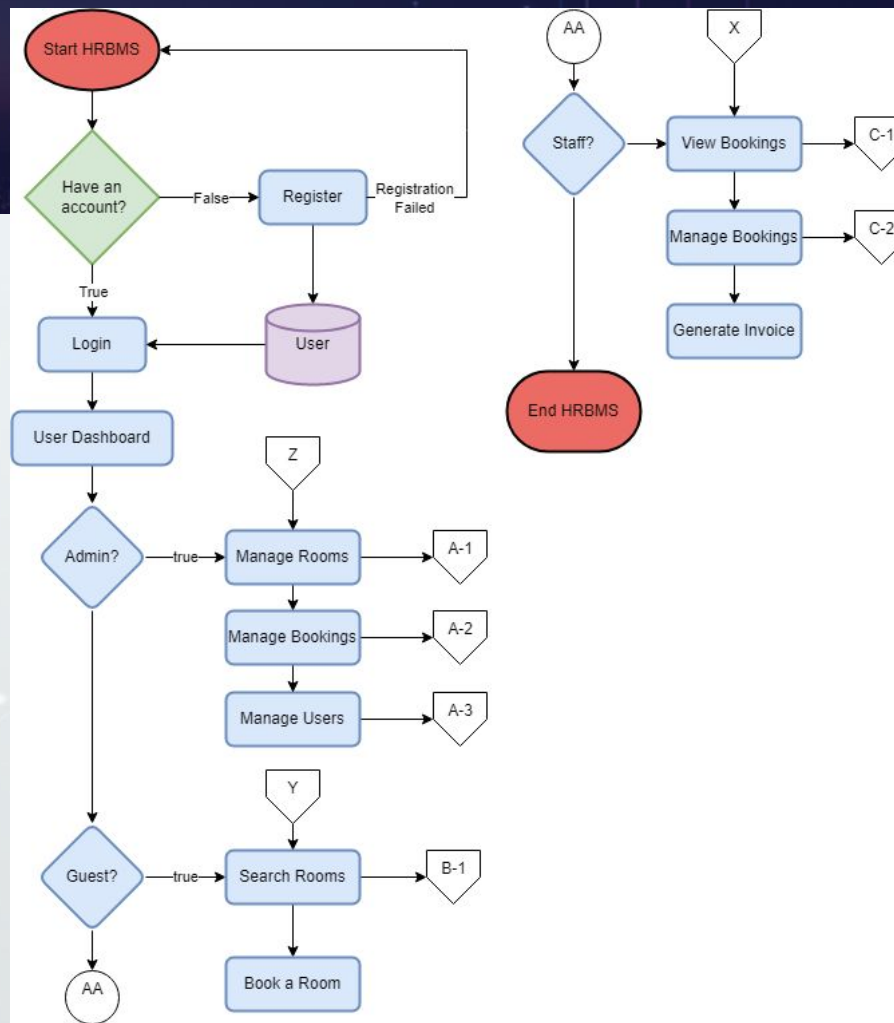
Entity-Relationship Diagram
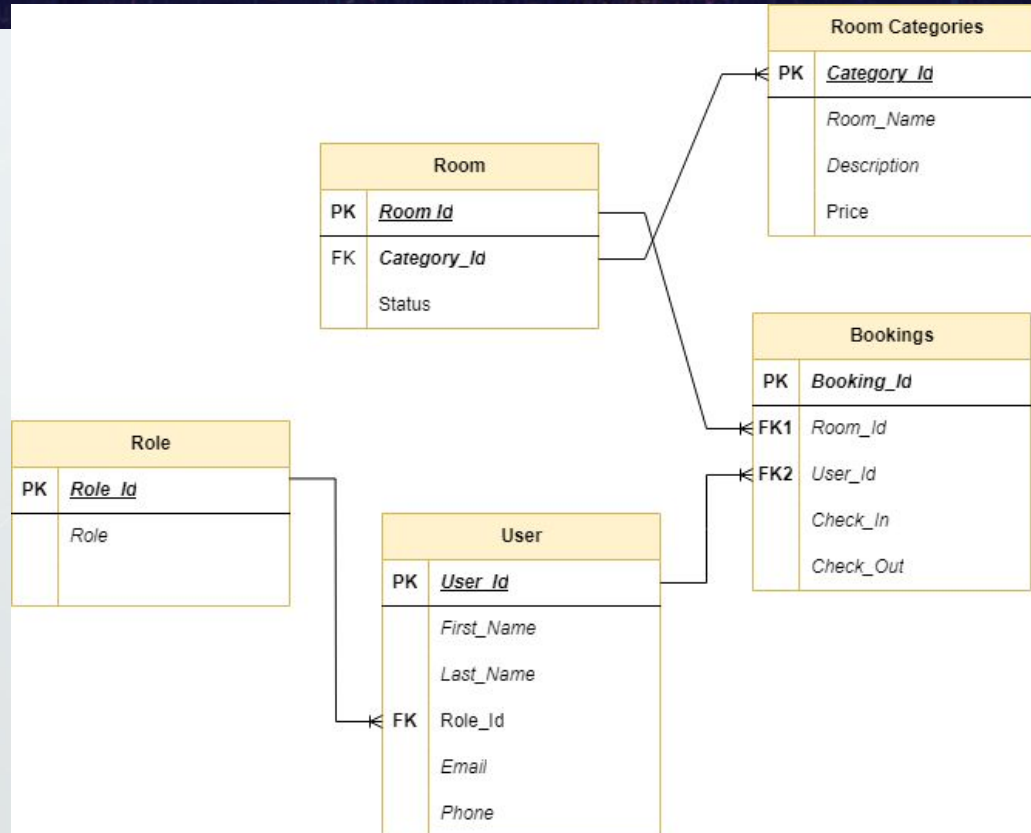
System Architecture

Hotel Room Booking System
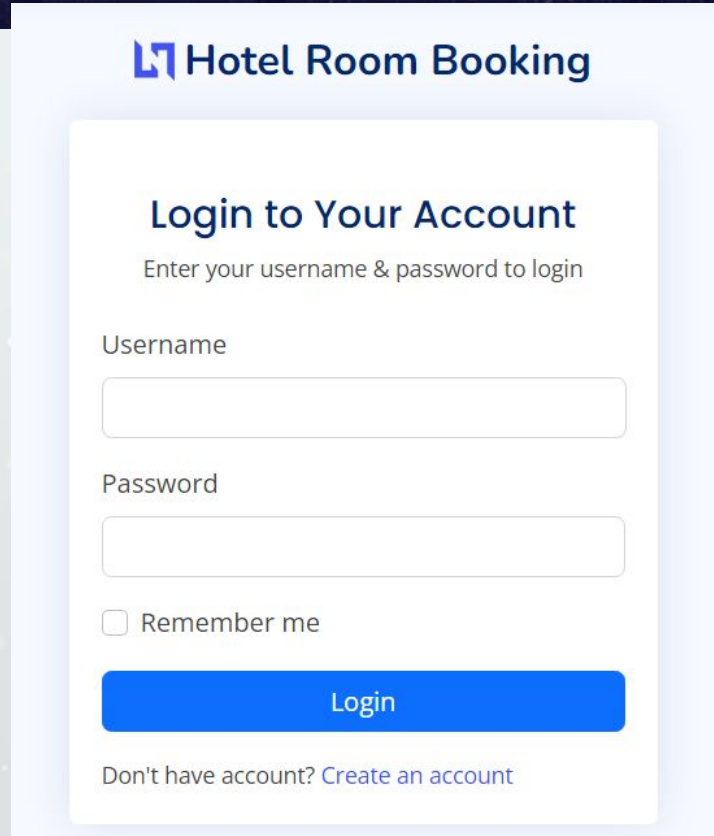
Important areas of the Project with screenshots
(Frontend, Database, Backend, Key Validations, Functionalities Etc.)

❖ 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

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Important areas of the Project with screenshots
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Important areas of the Project with screenshots
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HoBoSys

Hello !   Sign Out   Change Password

Current Password

Password

Confirm Password

Create

Back to Home

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Important areas of the Project with screenshots
(Frontend, Database, Backend, Key Validations, Functionalities Etc.)

HoBoSys

User   Booking List   Room Categories   Rooms List

Hello !   Sign Out   Change Password

Add Forms

Rooms
Home / Rooms

		Search

Enter Category Type

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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HoBoSys

User   Booking List   Room Categories   Rooms List

Hello !   Sign Out   Change Password

Add Forms

User
Home / User

[Enter Name]   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

Back to Home

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Important areas of the Project with screenshots
(Frontend, Database, Backend, Key Validations, Functionalities Etc.)

HoBoSys

User   Booking List   Room Categories   Rooms List

Hello !   ⏻ Sign Out   ⏻ Change Password

Add Forms ⌄

Bookings
Home / Bookings

| Enter Guest Name | Search |

Check In	Check Out	Full Name	Room

Back to Home

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Important areas of the Project with screenshots
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HoBoSys

User   Booking List   Room Categories   Rooms List

Hello !   Sign Out   Change Password

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

Important areas of the Project with screenshots
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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