

Sri Lanka Institute of Information Technology



Software Engineering| SE2030
2025 Year 02 Semester 01

Web-based Hotel Reservation System for Special Events
PG-262

IT24104328	Dehigolla D.S.S
IT24102377	Silva Y MS H K R
IT24100357	Abdullah A.L
IT24100908	Sirimanna H. D. S. S
IT24102327	Pituwala.K.M.V.A
IT24102423	Jayasiri D.N.D

System Purpose

The primary purpose of the system is to develop a convenient, efficient, and reliable **online hotel reservation platform** tailored for special events (weddings, conferences, concerts, festivals, etc.).

The system aims to achieve the following objectives:

- Reduce waiting time and eliminate the need for manual/phone-based hotel reservations.
- Provide **real-time availability** of rooms, event halls, and services.
- Offer **secure online and offline payment options**.
- Automate hotel operations such as **room booking, event hall reservations, and catering services** through centralized management.
- Collect **customer feedback** to improve event services and enhance guest satisfaction.
- Maintain an organized **database** for customers, staff, reservations, rooms, halls, payments, and event services.

This system ensures that customers can book accommodations and event facilities anytime, while hotel staff can manage reservations efficiently, avoiding errors and reducing manual work.

Users

- **Customers** – End users who reserve hotel rooms, halls, or event-related services through the system.
 - They can search for hotels by location/date, check availability, make reservations, request catering or extra services, make payments, and give feedback.
- **Staff Members** – Includes hotel administrators, front desk staff, and event staff.
 - **Admin** – Manages rooms, event halls, services, and customer records.
 - **Front Desk Staff** – Verifies online/offline payments and handles check-in/checkout.
 - **Event/Catering Staff** – Manages event bookings, catering, and special arrangements.

Functional Requirements

Major Features

- User Management
- Room & Event Hall Management
- Reservation Management
- Catering & Service Management
- Payment Management
- Feedback Management

Operations

- Admin manages rooms, halls, services, and customer details.
- Customers can book rooms, event halls, and request catering or additional services.
- Customers can make secure payments online or at the hotel counter.
- The system sends booking confirmations automatically.
- Customers can cancel reservations (refund policies defined by the hotel).
- Customers can submit, view, and delete feedback.
- Front desk staff verify payments and check-in details.
- Event staff manage catering and event-specific service requests.

Non-functional Requirements

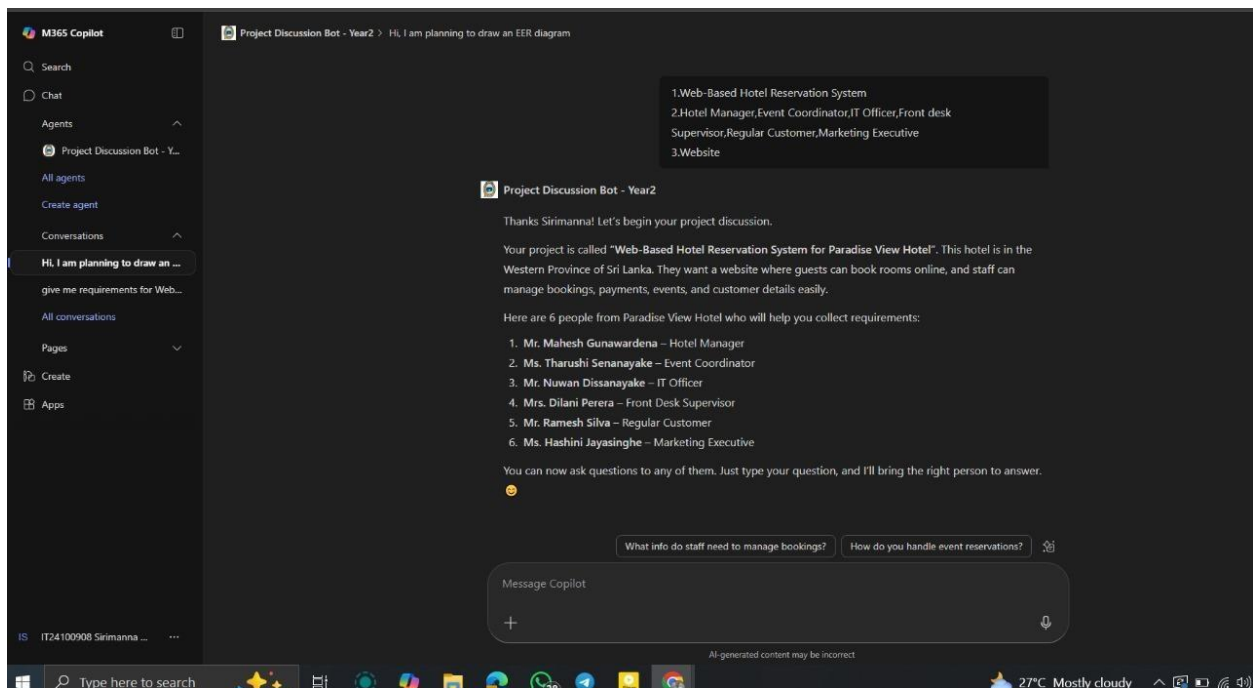
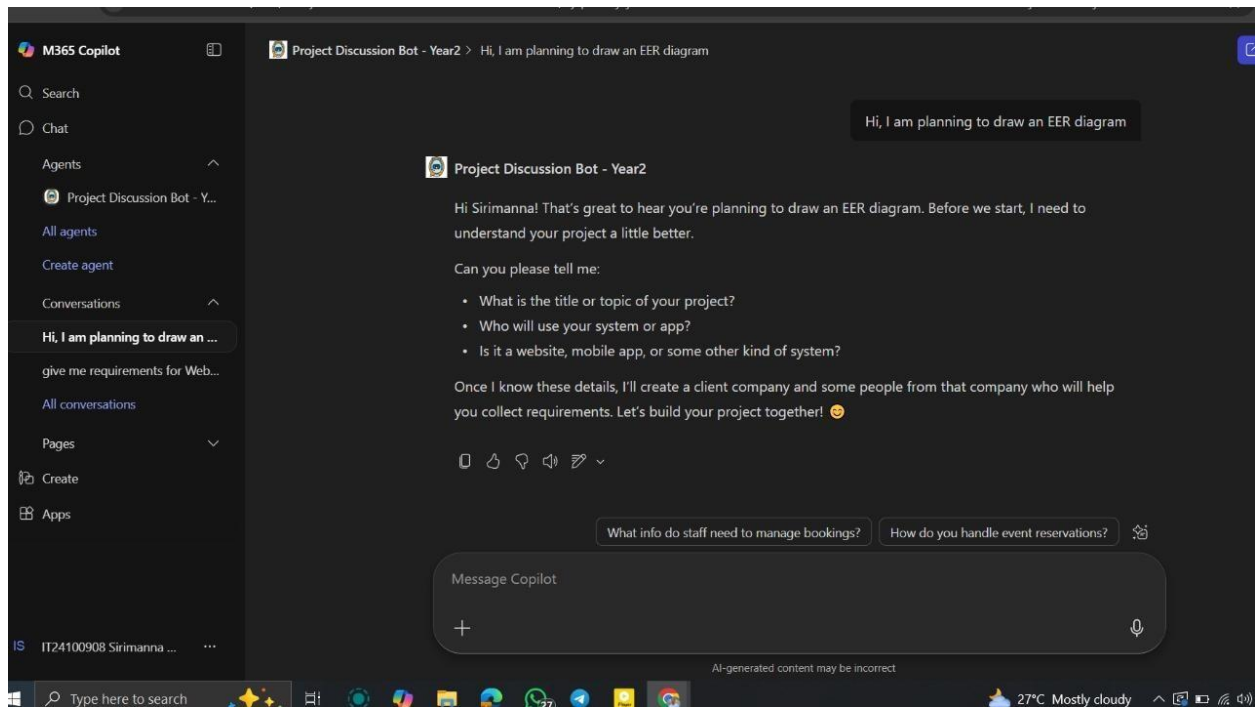
- **Availability** – Uptime of 99.9%, with daily backups.

- **Performance** – Responses (room search, booking, payments) within 3 seconds; supports at least 50 concurrent users.
- **Scalability** – Supports growing numbers of customers and event bookings.
- **Accessibility & Compatibility** – Works on desktops, tablets, smartphones, and across major browsers.
- **Security** – HTTPS encryption, secure storage of credentials, transaction logs.
- **Usability** – Simple interface for easy reservations, error-free booking, and accessibility support.
- **Maintainability** – Easy updates, bug fixes, and feature expansions by developers.

Constraints / Assumptions

- **Platform Dependency** – Web-based only; no native mobile app.
- **Device Compatibility** – Tested on modern devices; older browsers may not display correctly.
- **Internet Requirement** – Requires a stable connection; offline use not supported.
- **Payment Gateway** – Customers without online payment access must pay at the hotel counter.
- **Scope** – Designed for one hotel with multiple rooms and event halls. Future versions may support multiple hotel branches.
- **Refund Policy** – Refunds/cancellations subject to hotel's terms and conditions.

Screenshots



Mr.Mahesh Gunawardena(Hotel Manager)

Hi.Mr. Mahesh Gunawardena, can you explain what the system should do?



Project Discussion Bot - Year2

Hello! I'm Mr. Mahesh Gunawardena, the Hotel Manager at Paradise View Hotel.

Thank you for helping us with this new website. We want the system to do many things. First, customers should be able to check room availability and make bookings online. Second, our staff should be able to manage those bookings easily. Also, we want to handle payments, customer details, and maybe even event reservations through the system.

Let me know if you want more details about any part. 😊



The screenshot displays the Microsoft Copilot application window. On the left is a sidebar with navigation options: Search, Chat, Agents (with a sub-item 'Project Discussion Bot - Y...'), All agents, Create agent, Conversations (with a sub-item 'Hi, I am planning to draw an ...'), give me requirements for Web..., All conversations, Pages, Create, and Apps. The main area shows a chat conversation with 'Project Discussion Bot - Year2'. The bot's response includes a greeting, a list of required customer details for bookings (Full name, Contact number, Email address, Check-in and check-out dates, Number of guests, Room type they want, and Any special requests), and a note about payment details. Below the chat, there are two suggested prompts: 'What info do staff need to manage bookings?' and 'How do you handle event reservations?'. At the bottom, there is a 'Message Copilot' input field with a plus icon and a microphone icon. A small disclaimer at the bottom right states 'AI-generated content may be incorrect'.

M365 Copilot

Project Discussion Bot - Year2 > Hi, I am planning to draw an EER diagram

What details do you need from customers when booking?

Project Discussion Bot - Year2

Hello! I'm Mr. Mahesh Gunawardena, the Hotel Manager at Paradise View Hotel.

When a customer books a room, we need some basic details to keep everything clear and safe. Here's what we usually ask:

- Full name
- Contact number
- Email address
- Check-in and check-out dates
- Number of guests
- Room type they want
- Any special requests (like extra bed or sea view)

We also ask for payment details, but that part should be secure and handled carefully.

Let me know if you want to ask about how staff use the system or how events are booked. 😊

What info do staff need to manage bookings? How do you handle event reservations?

Message Copilot

+

AI-generated content may be incorrect

Ms.Tharushi Senanayake (Event Coordinator)

The screenshot shows the Microsoft 365 Copilot chat interface. On the left is a sidebar with navigation options: Search, Chat, Agents, Project Discussion Bot - Y..., All agents, Create agent, Conversations, and a list of conversations including 'Hi, I am planning to draw an ...'. The main chat area has a header 'Project Discussion Bot - Year2' and a user message: 'Hi, I am planning to draw an EER diagram'. Below this is a system message from the bot: 'Hi.Ms. Tharushi Senanayake, can you explain what the system should do?'. The bot's response follows: 'Hello! I'm Ms. Tharushi Senanayake, the Event Coordinator at Paradise View Hotel. Thank you for asking. I want the system to help us manage event bookings like weddings, meetings, and parties. Customers should be able to see available event spaces, select dates, and send us their requirements. It will save time and reduce mistakes. Let me know if you want to know what details we collect for events. 😊'. At the bottom, there are two suggested prompts: 'How do you confirm event bookings?' and 'How do you handle changes to event bookings?'. A text input field labeled 'Message Copilot' is at the bottom, and a small disclaimer 'AI-generated content may be incorrect' is at the very bottom.

Hi.Ms. Tharushi Senanayake, can you explain what the system should do?

Project Discussion Bot - Year2

Hello! I'm Ms. Tharushi Senanayake, the Event Coordinator at Paradise View Hotel.

Thank you for asking. I want the system to help us manage event bookings like weddings, meetings, and parties. Customers should be able to see available event spaces, select dates, and send us their requirements. It will save time and reduce mistakes.

Let me know if you want to know what details we collect for events. 😊

How do you confirm event bookings? How do you handle changes to event bookings?

Message Copilot

AI-generated content may be incorrect

This screenshot shows the next part of the conversation. The user's previous message is now in the history. The bot's response to the question 'What details do you collect for event bookings?' is: 'Hello! I'm Ms. Tharushi Senanayake, the Event Coordinator at Paradise View Hotel. When someone books an event, we collect these details: Name and contact number, Type of event (like wedding, meeting, party), Date and time, Number of guests, Special requests (like decorations, food, music), and Budget range. We also ask if they need rooms for guests or transport. This helps us plan everything smoothly. Would you like to ask about how we confirm bookings or how we manage changes? 😊'. The same suggested prompts and input field are visible at the bottom.

What details do you collect for event bookings?

Project Discussion Bot - Year2

Hello! I'm Ms. Tharushi Senanayake, the Event Coordinator at Paradise View Hotel.

When someone books an event, we collect these details:

- Name and contact number
- Type of event (like wedding, meeting, party)
- Date and time
- Number of guests
- Special requests (like decorations, food, music)
- Budget range

We also ask if they need rooms for guests or transport. This helps us plan everything smoothly.

Would you like to ask about how we confirm bookings or how we manage changes? 😊

How do you confirm event bookings? How do you handle changes to event bookings?

Message Copilot

AI-generated content may be incorrect

Mr.Nuwan Dissanayake (IT Officer)

Search

Chat

Agents

Project Discussion Bot - Y...

All agents

Create agent

Conversations

Hi, I am planning to draw an ...

give me requirements for Web...

All conversations

Pages

Create

Apps

IS IT24100908 Sirimanna ...

Hi.Mr. Nuwan Dissanayake, can you explain what the system should do?

Project Discussion Bot - Year2

Hello! I'm Mr. Nuwan Dissanayake, the IT Officer at Paradise View Hotel.

This system should work smoothly for both customers and staff. Customers must be able to book rooms and events online. Staff should be able to manage bookings, update room availability, and check reports easily.

Also, the system should be safe and fast. If you want, I can explain what technical features we need in simple words. 😊

What security features does the system need? Who can access these reports?

Message Copilot

+

AI-generated content may be incorrect

Search

Chat

Agents

Project Discussion Bot - Y...

All agents

Create agent

Conversations

Hi, I am planning to draw an ...

give me requirements for Web...

All conversations

Pages

Create

Apps

IS IT24100908 Sirimanna ...

What reports can staff see in the system?

Project Discussion Bot - Year2

Hello! I'm Mr. Nuwan Dissanayake, the IT Officer at Paradise View Hotel.

Good question! Staff can see many useful reports in the system. For example:

We can see daily booking reports to know how many rooms are booked today.

We can check monthly income reports to see how much money we earned.

We can also view room availability reports, event bookings, and customer feedback summaries.

These reports help us manage the hotel better. Let me know if you want to ask about security or system access. 😊

What security features does the system need? Who can access these reports?

Message Copilot

+

AI-generated content may be incorrect

Mrs.Dilani Perera (Front Desk Supervisor)

Hi, now I would like to talk with Mrs. Dilani Perera



Project Discussion Bot - Year2

👋 Hello Sirimanna! I'm Mrs. Dilani Perera, the Front Desk Supervisor at Paradise View Hotel.

Thank you for helping us with this new system. I want the website to make my work easier. Right now, I have to write everything by hand or use Excel. With the new system, I want to:

- See all bookings clearly
- Check room availability quickly
- Update check-ins and check-outs easily
- Get alerts for special requests or VIP guests

It should be simple and fast. I don't want to click too many buttons. Let me know what else you need from me 😊

What problems do you face with current booking methods?



Project Discussion Bot - Year2

👋 Hello! I'm Mrs. Dilani Perera, the Front Desk Supervisor at Paradise View Hotel.

Right now, we use phone calls, emails, and a big Excel sheet to manage bookings. Sometimes we miss bookings or double-book rooms. It's hard to check room availability quickly, especially when many guests arrive at once.

I really hope your system can fix these problems and make our work easier. Would you like to ask how we handle check-ins or special requests? 😊



Mr.Ramesh Silve (Regular Customer)

Hi Mr. Ramesh Silva, can i talk with you now?



Project Discussion Bot - Year2

👋 Hello Sirimanna! I'm **Mr. Ramesh Silva**, a regular customer at **Paradise View Hotel**.

I often book rooms for holidays and sometimes attend events here. I want the new website to be easy to use. I should be able to check room prices, see photos, and book without calling the hotel.

Also, I want to get booking confirmation quickly. Sometimes I don't get replies when I email the hotel. This system should fix that.

Would you like to ask what features I expect as a customer? 😊



What features do you want as a customer?



Project Discussion Bot - Year2

👋 Hello! I'm **Mr. Ramesh Silva**, a regular customer at **Paradise View Hotel**.

As a customer, I want the website to be simple and helpful. I should be able to see room types, prices, and photos. I want to book quickly without calling anyone. I also like to get booking confirmation fast, maybe by email or SMS.

It would be nice if I can log in and see my past bookings too. Let me know if you want more ideas from me 😊



Ms.Hashini Jayasinghe (Marketing Executive)

Hi, Ms. Hashini Jayasinghe its your turn



Project Discussion Bot - Year2

👋 Hello! I'm Ms. Hashini Jayasinghe, the Marketing Executive at Paradise View Hotel.

Thanks for including me in your project. I want the system to help us promote the hotel better. It should show nice photos, special offers, and customer reviews. That way, more people will book online.

Would you like to ask what kind of promotions or marketing tools we need? 😊



How should the system help with marketing?



Project Discussion Bot - Year2

👋 Hello! I'm Ms. Hashini Jayasinghe, the Marketing Executive at Paradise View Hotel.

The system should help us show our hotel to more people. It must show nice photos, special offers, and customer reviews. We also want to send emails or messages to people about discounts and events.

If the system can connect with social media, that will be very good. More people will see our hotel and book online. Would you like to ask about how we handle promotions now? 😊



Final List of 6 Core Functions

1.Customer Registration and Policy Management - Add new customers, create insurance policies, and update details.

2.Claim Submission- Customers can submit claims, upload documents, and check claim status.

3.Document Upload and Legal Checks - Upload police reports, accident photos and agreements. System checks if all legal documents are complete

4.Payment Management - Track premium payments, send reminders, and show payment history.

5.User Access Control and Security - Only staff with permission can view or edit sensitive data.

6.Rating & Reviews - Allow customers to rate and review insurance policies, claim experiences, and overall service.