Abstract

Luxy, an innovative chatbot, was created to help streamline the hotel room reservation process at Singapore's Oasis beach resort. Luxy's primary goal is to provide users with a convenient booking experience while also providing comprehensive information about the resort's amenities and services.

Development:

During the development phase, I chose the **Botpress** platform to create Luxy, which ensures adaptability and customization to meet the diverse needs of users. Using Botpress studio, I carefully developed Luxy's conversational flow, converting concept diagrams into interactive dialogues. Utilizing the advanced technical capabilities of Botpress, Luxy was equipped with sophisticated natural language understanding (NLU) features and a robust conversational flow design, ensuring seamless interactions and accurate responses for users. This approach enabled a smooth transition from conceptualization to implementation, ensuring that Luxy's functionality matching closely to user expectations. However, this phase encountered difficulties, including issues with date processing and database retrieval. These challenges were overcome with careful manual coding and rigorous testing protocols, resulting in Luxy's successful functionality.

Testing and Refinement:

The testing phase was a critical stage in Luxy's development, marked by collaborative efforts with friends and colleagues to identify flaws and areas for improvement. Valuable feedback guided iterative refinements that are used for optimising Luxy's conversational flow and correcting linguistic inconsistencies, thereby improving the overall user experience.

Furthermore, I discovered errors in the availability check, which were quickly corrected to improve Luxy's accuracy in providing information about room availability. These changes significantly improved Luxy's performance, resulting in smoother user interactions and higher success rates when completing reservations.

_____

Luxy's functionality improved significantly after these changes were implemented. Testing reported a more seamless booking process, resulting in higher satisfaction and efficiency. Luxy's improved performance demonstrates its effectiveness as a dependable and user-friendly platform for guests seeking accommodations at Oasis beach resort.

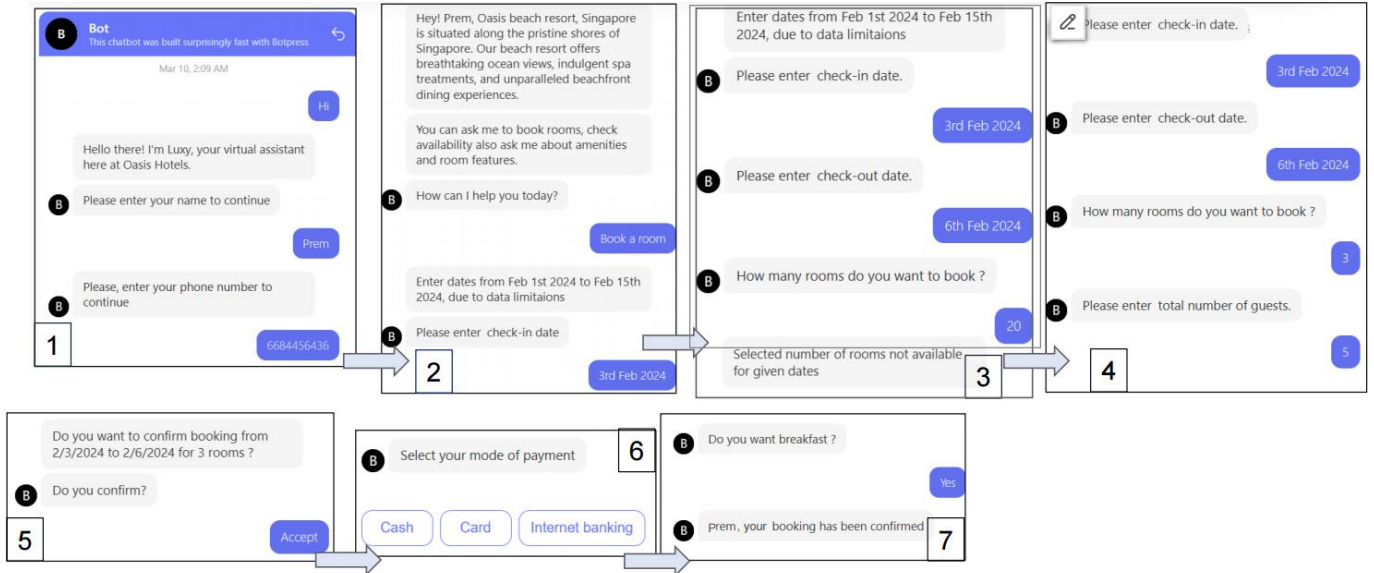## **Future development and enhancements:**

Despite these advancements, Luxy's ability to provide real-time availability data is still limited by manual updates. Thus, integrating live availability data remains a top priority for future development, ensuring that users have access to the most up-to-date information when making reservations.

For future development integrating a payment gateway into Luxy's functionality greatly improves the user experience and overall efficiency of the booking process. The seamless integration of a secure payment gateway allows users to complete their reservations directly through Luxy, eliminating the need for additional steps or redirects to external payment platforms. This streamlined approach not only improves user convenience but also lowers the risk of abandoned bookings because the entire process can be completed within the chatbot interface.

Furthermore, integrating a payment gateway allows Luxy to provide real-time booking confirmation, which increases user transparency and confidence. Luxy can immediately confirm the reservation after successful payment processing, giving users peace of mind. Furthermore, the integration of payment gateway functionality enables Luxy to automate payment reminders and follow-ups, ensuring that bookings are completed on time and reducing the risk of missed reservations. Overall, the addition of a payment gateway to Luxy's capabilities improves the booking process, providing users with a seamless and secure experience from beginning to end.

To summarize, Luxy represents a significant advancement in hotel reservation technology, expressing a commitment to excellence and user satisfaction. Continued refinement and innovation will elevate Luxy's capabilities.

Screenshots from the chatbot:

1

Bot
This chatbot was built surprisingly fast with Botpress

Mar 10, 2:09 AM

Hi

Hello there! I'm Luxy, your virtual assistant here at Oasis Hotels.

Please enter your name to continue

Prem

Please, enter your phone number to continue

6684456436

2

Hey! Prem, Oasis beach resort, Singapore is situated along the pristine shores of Singapore. Our beach resort offers breathtaking ocean views, indulgent spa treatments, and unparalleled beachfront dining experiences.

You can ask me to book rooms, check availability also ask me about amenities and room features.

How can I help you today?

Book a room

Enter dates from Feb 1st 2024 to Feb 15th 2024, due to data limitaions

Please enter check-in date

3rd Feb 2024

3

Enter dates from Feb 1st 2024 to Feb 15th 2024, due to data limitaions

Please enter check-in date.

3rd Feb 2024

Please enter check-out date.

6th Feb 2024

How many rooms do you want to book ?

20

Selected number of rooms not available for given dates

4

Please enter check-in date.

3rd Feb 2024

Please enter check-out date.

6th Feb 2024

How many rooms do you want to book ?

3

Please enter total number of guests.

5

5

Do you want to confirm booking from 2/3/2024 to 2/6/2024 for 3 rooms ?

Do you confirm?

Accept

6

Select your mode of payment

Cash   Card   Internet banking

7

Do you want breakfast ?

Yes

prem, your booking has been confirmed

References

1. Botpress Documentation. Retrieved from https://botpress.com/docs/
2. Botpress. (2024, Feb 25). https://botpress.com/
3. Botpress GitHub Repository. Retrieved from https://github.com/botpress/botpress