UI/UX Using Design Thinking Method in Clarient Hotel Application Design

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Abstract – Clairent Hotel is an online hotel room booking application specifically targeting the Bali area. A crucial aspect of developing an effective application is designing the user interface (UI) and user experience (UX) to meet the needs of users. This is particularly important for delivering an optimal experience during both leisure and business trips in Bali. To achieve this, the development of the Clairent Hotel application utilizes the Design Thinking methodology, which encompasses five key stages: empathize, define, ideate, prototype, and test. This approach is crucial as it prioritizes understanding the user's perspective and needs, fostering innovative solutions that enhance usability and satisfaction. By engaging in empathy-driven research, the design team can uncover insights into user behaviors and preferences, which informs the definition of the core problems to be addressed. Ideation allows for brainstorming creative solutions, while prototyping enables the visualization of these ideas in a tangible format. Finally, testing ensures that the application meets user expectations and functions effectively. The result of this research is a Clairent Hotel application that operates seamlessly, featuring an intuitive user interface that facilitates easy navigation. By employing the Design Thinking process, the application not only addresses user needs but also enhances the overall user experience, ultimately contributing to greater customer satisfaction and loyalty.

Keywords – UI/UX, Design Thinking, Method.

I. INTRODUCTION

Various aspects of life are affected by the advancement of information technology, and design is one of them. A plan or design made before an item, system, component, or structure is made is called design. The goal is to make the object to be made useful, beautiful, and functional for humans. Ensuring the right balance between UI and UX is essential for successful UI/UX design, which means a pleasant interaction between the application and the user without neglecting the importance of an attractive appearance. It is very important for businesses to ensure that the application or website is easy for users to use[1][2].

Clairent Hotel is an innovative online hotel room booking application tailored specifically for the vibrant and diverse tourism market of the Bali region. As the demand for seamless travel experiences continues to rise, the importance of crafting an effective application cannot be overstated. A critical component of this process is the meticulous design of the user interface (UI) and user experience (UX), which must be thoughtfully aligned with the varied needs and preferences of users. This emphasis on user-centric design is vital for delivering an exceptional experience to both leisure travelers seeking relaxation and exploration, as well as business travelers requiring efficiency and convenience during their stay.

Clairent Hotel serves as a comprehensive platform for hotel rental services, offering a wide range of accommodations that cater to different budgets and preferences. Given the competitive nature of the hospitality industry in Bali, it is imperative that the application is not only user-friendly but also highly accessible across various devices and operating systems. A well-designed UI ensures that users can easily navigate through the application, find relevant information, and complete bookings with minimal effort. Meanwhile, a positive UX enhances user satisfaction by creating an engaging and enjoyable interaction with the application, fostering trust and encouraging repeat usage.

Moreover, the application must incorporate features that address the specific needs of its users, such as personalized recommendations, easy comparison of hotel options, and streamlined payment processes. By focusing on these aspects, Clairent Hotel aims to position itself as a leader in the online hotel booking market in Bali, ultimately enhancing the overall travel experience for its users. In a region known for its rich culture and stunning landscapes, providing a reliable and efficient booking platform is essential for helping travelers create memorable experiences during their stay.

User interface (UI) and *user experience* are two important components that cannot be separated in the product design process. *User interface* or the interface is what is visible in the operation of a program, while *user experience* is what the user feels when operating the program. User experience is determined by how easy or difficult it is to interact with the interface elements that have been created by the designer. Use of the method *Design Thinking* [3], [4]will affect the design of the user interface and user experience of a product. Methods *Design Thinking* has a series of processes including *Empathize, Define, Ideate, Prototype, Test*. Each process in the method *Design Thinking* used to find out user needs and problems, which will then be resolved into a solution that is translated into the form of interface and interaction design [5],[6], The UI/UX Design with Design Thinking Method for The University Complaint Website[7].

II. RESEARCH METHODOLOGY
Design Thinking Method

Design thinking is a cross-disciplinary creative solution-based approach that combines analytical thinking, practical skills, and creativity in thinking [8],[9][10] . The method that will be used is the Design Thinking method. This method is to create solutions that begin with the Empathize process for a particular need that is centered on humans (human centered). Not only that, there are 3 processes, namely inspiration is used to find solutions to a problem or find a new discovery. Ideation is a series that produces new thoughts[11],[12], where these thoughts are developed more widely and tested, and the last stage is implementation, which is implementing the final result to prospective users. In the development process, the three stages are developed into five stages, basically there are not many differences, but some parts have been highlighted, so that the procedure is more detailed[13].
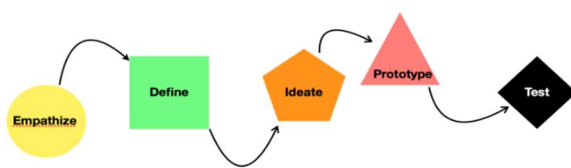

Fig 1. Design Thinking Framework

The Design Thinking method has 5 stages, namely, Empathize aims to understand users in the context of the product designed through observation and distributing questionnaires with the first given scenario. The second stage is Define, which aims to determine the formulation of the problem as the main objective of the research[14]. The third stage is Ideate [15], which aims to produce ideas or concepts as a basis for making prototyping [16]. Fourth, Prototype is the initial design of the product to be made in order to find errors early and obtain new possibilities. The last is Trial. Trials are carried out to collect data from various user responses or to see whether the application is suitable for use or not.

III.   RESULTS AND DISCUSSION

Discussion Results

The primary outcome of this discussion is the development of the Clairent Hotel application, which demonstrates that creating UI/UX through the design thinking method can be achieved by following the appropriate steps. The application is designed to simplify the hotel reservation process for users, featuring a clean and organized UI/UX design.

Splash Screen

When opening the application, the screen will display a Splash Screen, here the User can see a glimpse of the Clairent Hotel logo when opening the Clairent Hotel application.
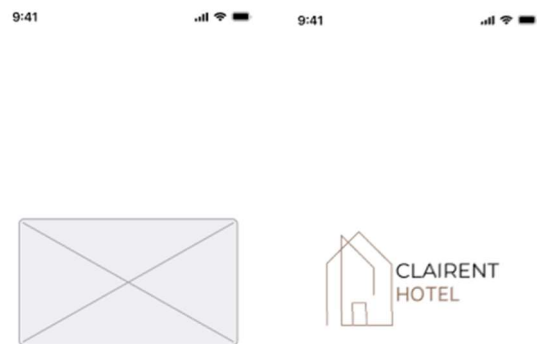

Fig 2. Splash Screen Wireframe

Login Page

After going through the splash screen, you will then enter the login page. On this login page, users can enter their email address and password if they are already registered in the Clairent Hotel application. Then just click the login button and the user will enter the next page.
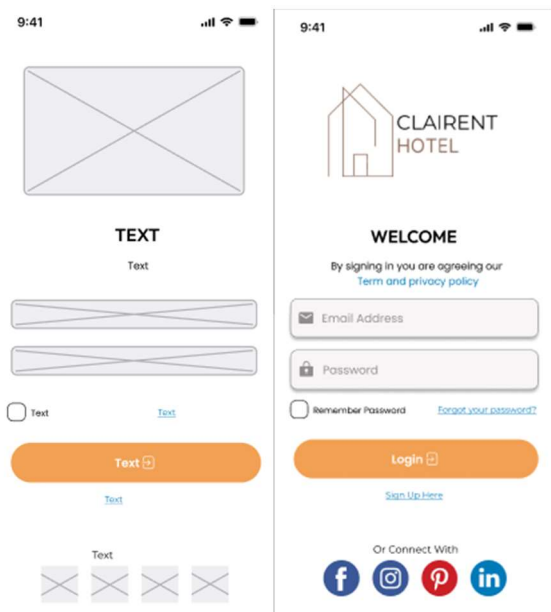

Fig 3. Login Page Wireframe

Sign Up Page

Then there is a sign up page. When the user has not created an account, the user can create an account on this page, simply enter the data in the column, then the account has been created, the user can proceed to the login page, then log in with the data that has been created.
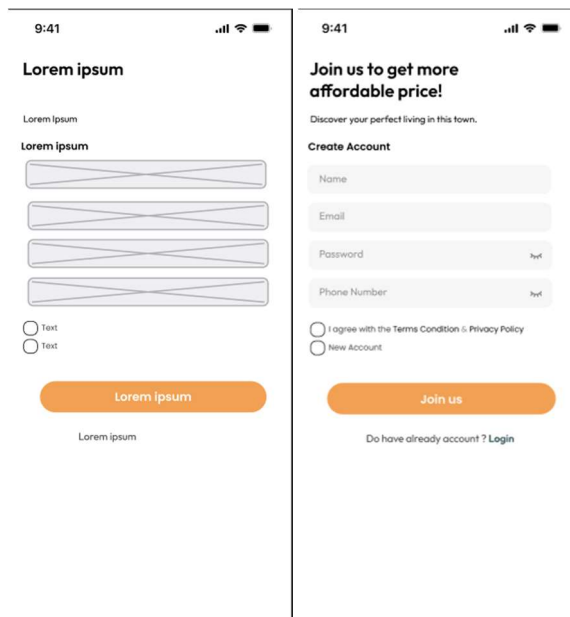
Fig 4. Wireframe Sign Up Page

Fig 5. Wireframe Home page

Book Now Page

Next, if the user clicks on the Book Now menu, the Book Now page will appear, where this page is used to book a hotel at Clairent Hotel, the user can see what information is provided such as room prices, room descriptions, choose the date of stay, and the booking now button to book the hotel.

Fig 6. Wireframe Book Now

Home Page

Next, if the user is logged in, the user will enter the home page, where all the information and accessibility of the application are, starting from the location of the accommodation, how many people will stay, and how many rooms are rented. On this page there is also a search and a glimpse of the Clairent Hotel hotel rental offers. Then there is a menu that can be seen, such as Book Now for hotel reservations, Our Restaurant to see information about restaurants at the Clairent Hotel, then there is Location, which is where the hotel is located, then there is Rate Us to display hotel reviews, then there is FAQ, which is questions and answers about Clairent Hotel information, and finally there is Contact Us to communicate with the hotel's Customer Service. Under the menu there is Bottom Navigation used to see the home, and profile, users can also click on the middle part of the "+" sign to make a hotel reservation.
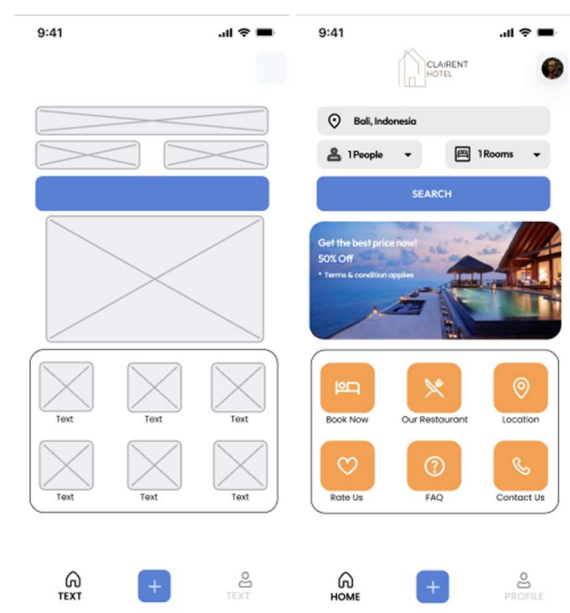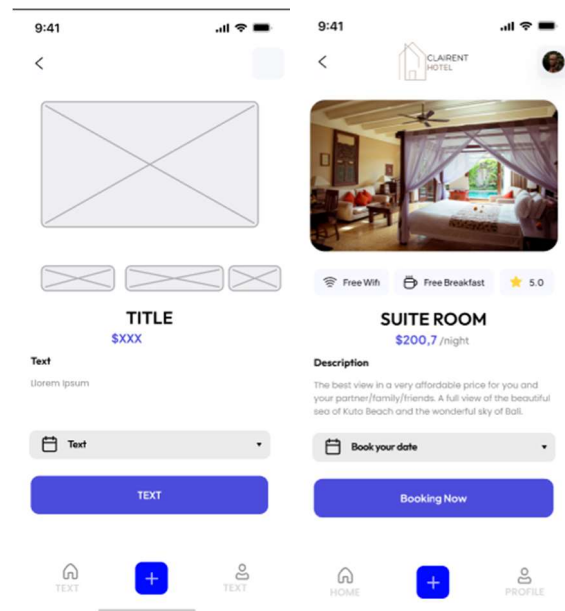
Payment Page

Then, when the user clicks Booking Now on the Book Now page, continue to the Payment page, where on this page the user can make payments using several options. When the user has entered the required data, the user can click the Pay Now button to pay the bill.
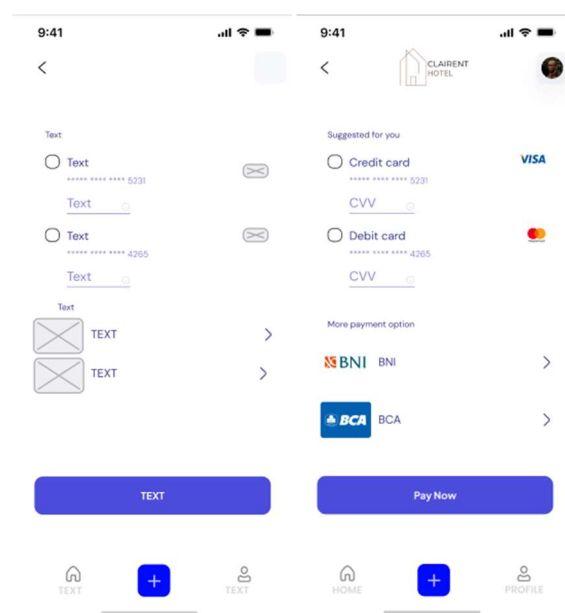
Fig 7. Wireframe Payment Page

Rate Us Page
Then there is the Rate Us page menu, on this page users can review and give ratings to Clairent Hotel, so that other visitors can see and provide suggestions for hotel services to develop.
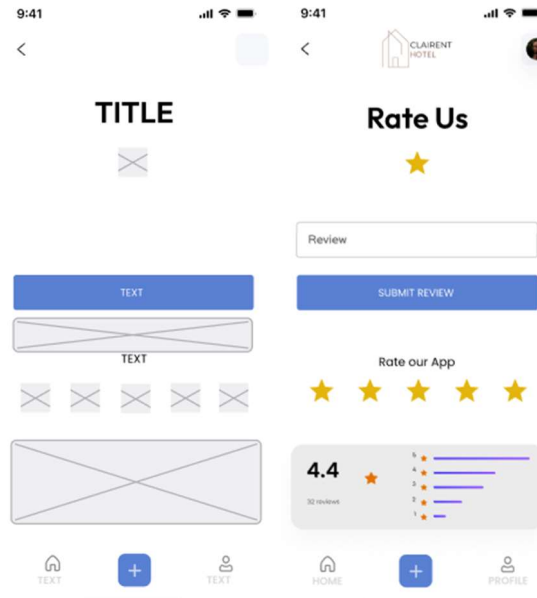

Fig 8. Wireframe Rate us page

FAQ Page
Then next there is the FAQ menu, FAQ or the abbreviation of Frequently Asked Questions is information about questions for customers or users who are confused about ordering or other things. On this page users can see and scroll down to see the answers that have been given by the hotel.
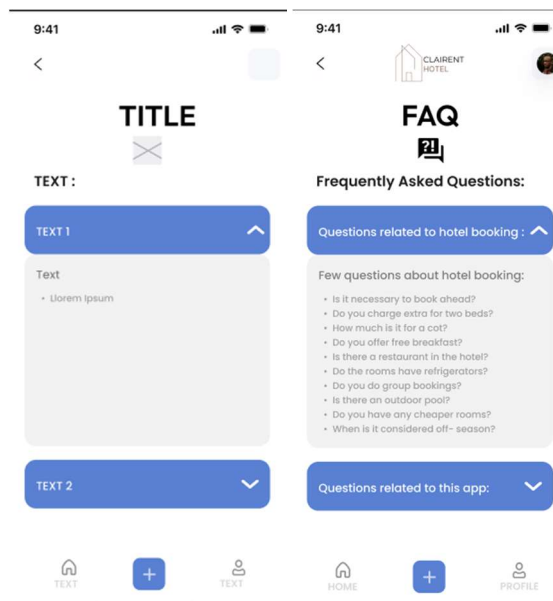

Fig 9. FAQ Page Wireframe

Location Page

Then there is the Location Page menu, on this page users can see the location of the hotel,
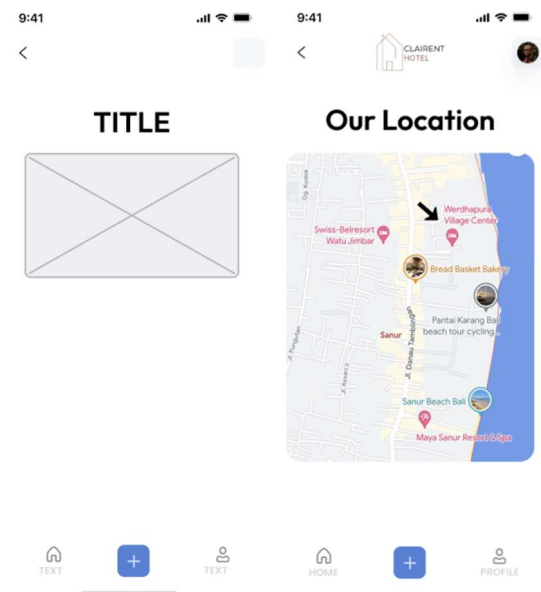

Fig 10. Wireframe Location Page

Our Restaurant Page
Next, there is the Our Restaurant menu, users can see various restaurant choices at Clairent Hotel, according to the atmosphere, then there is a description of the restaurant and there is a hotel customer service number for the restaurant section.
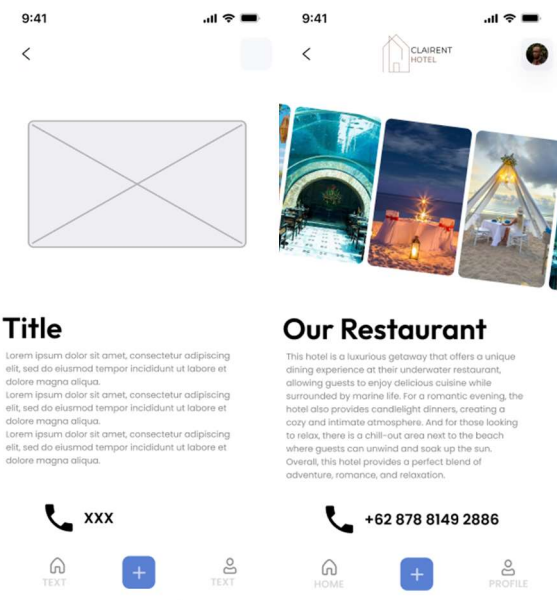

Fig 11. Wireframe Our Restaurant Page

Contact Us Page
Then, there is a Contact Us menu, on this page if the user feels confused about hotel reservations, or what facilities are provided at Clairent Hotel, they can contact the hotel's Customer Service. There is the location of Clairent Hotel, the hotel's customer service number, Clairent Hotel email, or you can contact the hotel's social media.
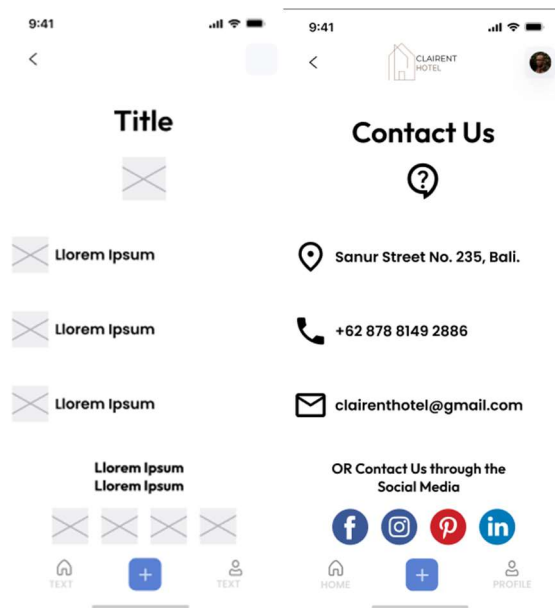
Fig12. Wireframe Contact Us

Profile Page
Finally, there is bottom navigation to go to the profile page, where on this page, there is user account data, starting from profile photo, user username, user date of birth, and user email. Users can also add user social media, then the last is the Log Out button, where this button functions for users when they want to exit the Clairent Hotel application, for a moment when Log Out, then the splash screen will appear again, then go to the Login Page again.
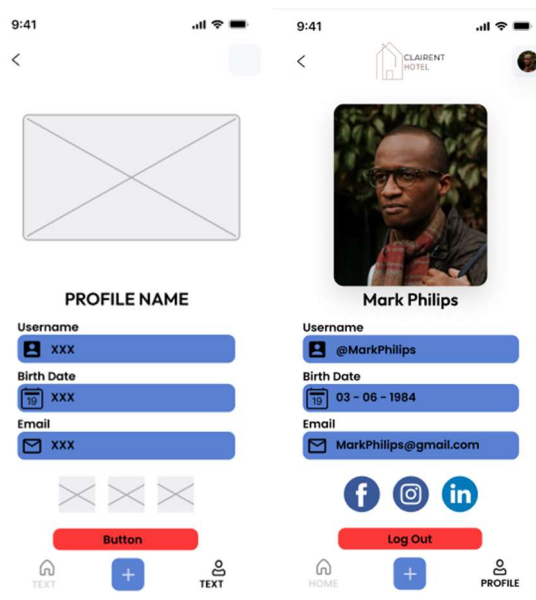

Fig 13. Profile Page Wireframe

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The findings from this research on the design of the Clairent Hotel application underscore the importance of employing a structured approach, such as the design thinking method, in the development of user interfaces and experiences. The resulting application not only facilitates the hotel reservation process but also emphasizes the value of a simple and organized design. Based on these insights, it is recommended that future app designs prioritize user-centric principles, ensuring that the UI/UX is intuitive and accessible. By adhering to these recommendations, developers can create applications that effectively meet user needs and enhance overall satisfaction.

IV.   CONCLUSION
Based on the results of the discussion that has been carried out on the design of the UI/UX design for the Clairent Hotel application, there are several things that can be concluded, including: (1) This discussion resulted in a UI/UX design and prototype of the Clairent Hotel website, (2) The results of this development are still in the form of designs and prototypes to provide an overview of the hotel application before being implemented by the development team.

Future works for researcher may conduct extensive user testing with a diverse group of participants to gather feedback on the prototypes. This would provide insights into real user interactions, preferences, and pain points, enabling iterative improvements to the design.

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