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# Air BnB Home Rental Analysis

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#### ABSTRACT:

The Air BnB app is a software application designed to streamline and automate Home rental services. The app is designed to provide a convenient and easy-to-use platform for customers, Home Owners, and Rentals to manage their Booking and Check out tasks. One of the key features of the Air BnB app is the chatbot, which is an artificial intelligence-based tool that can interact with users through text or voice. The chatbot can be programmed to answer frequently asked questions, provide guidance on Booking and Check out tasks, and even help customers to navigate the Hotels and find resources.

Keywords: - Android, Java, Python, Kotlin, Home Rental, Hotel Booking, Specific Location.

## I. INTODUCTION:

A home rental analysis, or hotel reservation software, is a technology platform that enables hoteliers to accept direct bookings through the hotel's website and through various distribution channels. Also known as a booking system or online booking engine, it is a tool that allows hotel guests to schedule the dates of their stay, choose rooms at the time of booking, and take payment from them. The Air BnB app is a software application designed to streamline and automate Home rental services. The app is designed to provide a convenient and easy-to-use platform for customers, Home Owners, and Rentals to manage their Booking and Check out tasks. One of the key features of the Air BnB app is the chatbot, which is an artificial intelligence-based tool that can interact with users through text or voice. The chatbot can be programmed to answer frequently asked questions, provide guidance on Booking and Check out tasks, and even help customers to navigate the Hotels and find resources.

The Air BnB app is a software application that is designed to assist customers and Owners in managing their Booking processes. The app offers a user-friendly platform that simplifies Booking and check-out tasks for customers, and staff.

#### II. FEATURES:

The app also includes features such as registration, tracking, calendars, and customer financials. customers can use the app to register for Rooms, view their schedules, and track their Rooms. Another important feature of the Air BnB app is the ability to send notifications and alerts to users. The app can send push notifications to customers reminding them of upcoming deadlines, cancellations, or events.

One of the key features of the Air BnB app is its ability to automate processes such as alert, scheduling, booking, and financial aid. The app enables customers to easily registerfor rooms, view their schedules, check their rooms, and apply for financial aid. owners and staff can use the app to manage their rooms, services, and track customers.

The Air BnB app also offers features such as calendars, scheduling, and maps. customers can view the calendar and receive reminders for important dates such as payment deadlines, booking dates. customers and staff can use the app to schedule events, reserve rooms, and manage hotel resources.

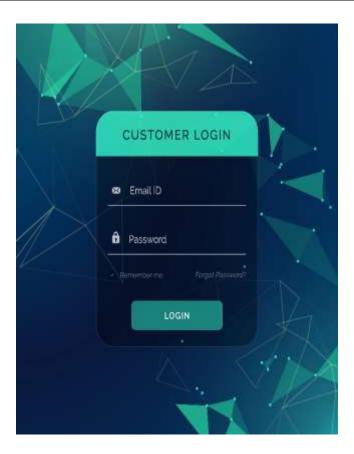


Fig.1 Login Page

The login page of the Air BnB app plays a crucial role in providing users with a secure and personalized experience. By logging in, users can access their personal accounts, ensuring that their information and preferences are safeguarded within the app. This login functionality sets the foundation for users to take full advantage of the app's features.

Once logged in, users can enjoy a range of personalized recommendations tailored to their preferences. The app takes into account their past bookings, favorite hotels, and preferences to offer suggestions that align with their choice. This personalized approach enhances the user's ability to discover new and exciting booking options.

## III. METHODS:

- Requirements Gathering: The first step in developing the Air BnB app was to gather requirements from Hotel owners, including Rental owner, customers, and Hotels that have place for rent. This involved conducting surveys, googling, and focus group discussions to understand the hotels of all areas involved in listing.
- 2. **Design and Prototyping:** Once the requirements were gathered, the team created wireframes and mockups to design the user interface of the app. The design process included creating different sections for Homes, Hotels, as well as incorporating features like real-time notifications, search functionality, and chat functionality for communication between owners and customers.
- 3. **Development:** The Air BnB app was developed using a combination of Java and Kotlin programming languages in Android Studio. Firebase was used as the backend for the app, providing features like authentication, real-time database, and cloud messaging. The app was developed using the Agile methodology, with regular sprints and testing to ensure the app was meeting user requirements.
- 4. **Testing:** The Air BnB app was tested using a combination of manual and automated testing. The team performed unit testing, integration testing, and user acceptance testing to ensure the app was functioning as expected and meeting user requirements. The app was also tested on different devices to ensure it was compatible with different screen sizes and operating systems.

5. Deployment and Maintenance: The Air BnB app was deployed to the Play Store for Android users. The team continues to monitor and maintain the app, releasing updates and bug fixes as needed to ensure the app is meeting user needs and providing a seamless experience for room owners and customers.

## IV. TECHNOLOGIES:

The Air BnB app was developed using a range of technologies, including Android Studio, Java, Python, Kotlin, and mysql. Android Studio is an integrated development environment (IDE) used for developing Android applications. The Air BnB app was built using Android Studio, allowing developers to easily design the user interface and develop the functionality of the app. Java is a programming language used for developing Android applications. Java was used extensively in the development of the Air BnB app, including for its backend server and database.

Kotlin is a programming language designed to be more concise and expressive than Java. Kotlin was used for the frontend development of the Air BnB app, making it easier for developers to write clean and efficient code.

Firebase is a mobile and web application development platform developed by Google. Firebase provides a range of services for building and managing mobile applications, including real-time database, hosting, and authentication. Firebase was used in the Air BnB app for its real-time database service, allowing owners and customers to update their profiles and listings in real-time.

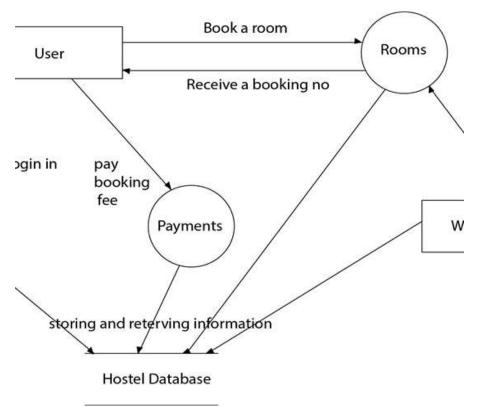


Fig.2 Flow Chart of Air BnB App

## V. CONCLUSION:

The Air BnB app is a software application designed to streamline and automate Home rental services. The app is designed to provide a convenient and easy-to-use platform for customers, Home Owners, and Rentals to manage their Booking and Check out tasks. One of the key features of the Air BnB app is the chatbot, which is an artificial intelligence-based tool that can interact with users through text or voice. The chatbot can be programmed to answer frequently asked questions, provide guidance on Booking and Check out tasks, and even help customers to navigate the Hotels and find resources. The app also includes features such as registration, tracking, calendars, and customer financials, customers can use the app to register for Rooms, view their schedules, and track their Rooms. Another important feature of the Air BnB app is the ability to send notifications and alerts to users. The app can send push notifications to customers reminding them of upcoming deadlines, cancellations, or events.

The Air BnB app is a software application that is designed to assist customers and Owners in managing their Booking processes. The app offers a user-friendly platform that simplifies Booking and check-out tasks for customers, and staff.

## VI. REFERENCES:

- [1] 1 Sangwon Park, Yizhen Yin, Byung-Gak Son, "Understanding of online hotel booking process: A multiple method approach," 2019 6th International conference on future Internet of things,Barcelona, 2019,pp. 152-157
- [2] Taiga Saito, Akihiko Takahashi, "Application on online booking data to hotel revenue management" 2019 Conference on Internet of Things (IOT), TM, 2019, pp.140-49.
- [3] Yigit Can Gular, Farid Huseynov, "The impact of online consumer reviews on online booking intention"2021 Conference on Online Applications (OA), US, 2021, pp.118-28.
- [4] Dong Zhang, Pengkun wu, Chong wu, "The role of key online reviews in affecting online hotel booking: an empirical investigation" 2021 Review Importance (RI), Russia, 2021, pp. 150-23.
- [5] Jo En Lim, Fadilah Mohd Zahari, "Factors affecting online hotel booking intentions: A study on uum students"2022 International Conference on Internet of Things and Applications (IOTA), Pune, 2022, pp.52-58.
- [6] Bui Thanh Khoa, Nguyen hoang Nam, "Online hotel booking continuous intention in the digital Transformation Age: case of vietnam "2022 Pattern system (PS), Egypt, 2022, pp.160-29.
- [7] Liang Tang, Xi Wang, Eojina Kim, "Predicting conversion rates in Online Hotel Bookings with customer reviews" 2022 Conference on Data Science (ML), Ontario, 2022, pp. 210-86.
- [8] Junhui He, "The Power of photographs: the impact of marketer and user generated photographs on consumer in online hotel booking"2023 Information system conference (ISC), Asia, 2023, pp.130-18.