**Project Description**

Our idea, INN DOORS, is a complete hotel booking system with personalized suggestions and effective reservation management, designed to simplify vacation planning. This platform will make it easy for users to plan their travels with its integrated booking list for managing reservations and personalized suggestions based on each user's likes and habits.

The target audience includes tourists, families, business travelers, and tour groups. INN DOORS uses artificial intelligence (AI) algorithms to examine user behavior and interests and offer highly personalized suggestions for the best possible travel experiences. Prioritizing reservations, creating reminders, and getting alerts when crucial reservation dates are coming up are all available to users. Additionally, the site has data visualization features that let customers keep track of their past reservations and see patterns to help with future travel arrangements.

**Requirements Summary:**

**Minimum Requirements**

**Processor Cores:**

* Dual Core

**Operating System:**

* Android: Version 7.0 or later
* iOS: Version 12 or later
* RAM: 2 GB

**Recommended Requirements**

**Processor Cores:**

* Octa-core or higher

**Operating System:**

* Android: Version 10.0 or later
* iOS: Version 14 or later
* RAM: 4 GB

**Other Requirements**

**Connectivity:**

* Internet Access
* Bluetooth (optional but recommended)
* GPS

**Permissions:**

* Calendar
* Contacts
* Storage
* Location
* Notifications
* Network Access
* Background Data Usage
* Task and Activity Recognition

User Verification:

To safeguard personal information and reservation details, the system must provide secure user authentication.

Particularized Suggestions:

Algorithms should be used by the app to offer individualized lodging suggestions based on user input, preferences, and habits.

Integrating Reservation Lists:

It must be possible for users to add, edit, and remove booking lists that include reservations connected to days and times.

Interface That's Easy to Use:

An easy-to-use interface is essential for booking administration and navigation, without requiring a significant learning curve.

Alerts and Memorandums:

To help users stay on schedule, the system needs to give alerts and reminders for impending reservations and suggestions.

Information Coordination:

Users should be able to view their reservations and travel schedules from any location at any time by using the application to sync data across different devices.

Personalization Choices:

The interface's look and feel, as well as the daily, weekly, and monthly booking views, ought to be customizable by users.

Data and Perspectives:

Give users statistics and insights about their past booking behavior and travel experiences to aid in better planning.

**Prototype Description**

Our smart calendar software prototype combines task management with tailored recommendations to enhance everyday efficiency. Professionals, students, and everyone else wishing to efficiently manage their daily work and schedules should use this program.

**User Scenario**

Jose and Paolo planned a trip to Davao and wanted to plan everything in advance. They used Inn doors Reservation app to find a suitable place for their stay

(UI)

**Rationale:**

The INN DOORS prototype that was chosen was chosen to fulfil the primary requirements mentioned in our project description: making hotel reservations more convenient and offering tailored suggestions to improve traveler experiences for a wide range of users. This strategy perfectly fits the needs of developing an application that is easy to use, incredibly functional, and adaptable and that uses artificial intelligence (AI) to deliver customized booking solutions.

**Initial Evaluation Plan:**

To test the prototype, Mapua Malayan Colleges Mindanao students will be invited; the objective is to enlist 18 participants. Students who agree to participate will get a Google Forms survey after their assessment session. The survey will have not just usability criteria based on the 10 Usability Heuristics but also questions created by the development team to evaluate additional significant elements. The survey will employ a Likert scale to gather and assess input, allowing for a comprehensive analysis and evaluation of the students' answers. The usefulness of the features and user interface of the prototype will be better understood thanks to these comments. The outcomes will play a crucial role in directing additional enhancements and guaranteeing that the finished product satisfies the requirements.

**Usability Specifications**

INNDOORS is a feature-rich booking system intended to make vacation planning easier and more enjoyable. The team wants this prototype to meet certain usability standards to guarantee a great user experience:

**Designing User Interfaces:**

* Easy-to-understand Navigation: Make sure the app has an intuitive navigation structure that is simple, uncomplicated, and consistent.
* Make sure user interactions are handled smoothly and quickly using responsive design.
* Minimalist Aesthetic: To reduce clutter and improve attention to reservations and travel information, choose a minimalist design with a consistent visual language.

**Availability:**

* Color Contrast: Use eye-pleasing color schemes with excellent contrast to accommodate people with vision problems.
* Font Size and Readability: Make sure that all text components are legible and that the font sizes are suitable for mobile use.

**Execution:**

* Fast Load Times: Reduce delays by optimizing the program to load fast and carry out activities effectively.
* Resource Efficiency: To avoid device slowness and increase usability, make sure the program uses the least amount of battery life, processing power, and data possible.

**User Input and Assistance:**

* Clear Error Messages: Use basic, non-technical language to create error messages that are useful and instructive, outlining what went wrong and how to repair it.
* Provide thorough tutorials, frequently asked questions, and step-by-step instructions in the in-app help section to help users navigate and make use of the app's capabilities.
* Feedback Mechanism: Make it simple for users to report problems and offer feedback inside the app so that their concerns are addressed right away.

**Safety:**

* Data protection: To safeguard user data, put strong security measures in place, such as encryption, secure authentication, and frequent security audits.
* Give users the chance to modify permissions for alerts, contacts, calendar access, storage, and other privacy-related features.
* These requirements make sure that INN DOORS offers everyone a safe, effective, and user-friendly booking experience.

**Heuristic Evaluation for INNDOORS**

Jakob Nielsen's 10 Usability Heuristics will be used to the INN DOORS app evaluation to guarantee a comprehensive analysis of usability and user experience.

**Visibility of System Status**

INN DOORS will provide prompt, lucid feedback to users on the status and activities within the app. Real-time updates on reservation activity and trip management chores will be available through loading indicators, booking confirmations, and notification badges.

**Match Between System and Real World**

The application will make use of well-known terminology and ideas that are consistent with users' expectations and actual travel situations. To provide clarity and convenience of use, terms like "Book Reservation," "Reminder," "Booking List," and "Sync" shall be simple and represent typical booking operations.

**User Control and Freedom**

INN DOORS will provide users with easily navigable choices to reverse acts or quickly leave undesirable conditions. User control and independence will be increased by features like a readily available logout option and a "Cancel" button throughout the booking process.

**Consistency and Standards**

To guarantee that users do not have to make assumptions about the meaning of various terms, circumstances, or actions, consistency will be upheld across INN DOORS. Established norms and branding rules shall be adhered to in terms of design, vocabulary, and layout.

**Error Prevention**

Errors in INN DOORS will be less common thanks to preventive measures. Users can prevent errors by having confirmation prompts before completing bookings and input validation for booking details, for instance.

**Recognition Rather Than Recall**

To lessen reliance on memory, INN DOORS will make objects, actions, and alternatives visible. Important features like making reservations, creating booking lists, and setting up reminders will be clearly marked and easily accessible.

**Flexibility and Efficiency of Use**

The software will serve both inexperienced and seasoned travelers. While novice users may follow guided lessons and advice, experienced users can take use of shortcuts like voice input and rapid booking alternatives. This ensures efficiency for all user levels.

**Aesthetic and Minimalist Design**

INN DOORS will have a simple, minimalistic design that will only provide pertinent reservation details. This method improves overall usability by avoiding clutter and allowing customers to concentrate on their trip plans without interruptions.

**Help Users Recognize, Diagnose, and Recover from Errors**

INN DOORS error messages shall be helpful and unambiguous, free of technical jargon. These messages will assist users in getting back on their feet fast by outlining the issue in simple terms and offering solutions.

**Help and Documentation**

Comprehensive help and documentation, including searchable FAQs, step-by-step tutorials, and contact options for more assistance, will be readily available to users within INN DOORS, guaranteeing that they can locate the information they want with ease.

**Design Implications**

Although the INN DOORS app prototype complies with usability guidelines in general, there are several areas that might be improved to increase usability and user experience:

**Areas for Improvement:**

**Error Prevention and Feedback:**

* Current Issue: Some areas lack proactive error prevention tools and explicit feedback.
* Improvement: Introduce robust error detection and prevention mechanisms. Provide clear, user-friendly error messages and solutions.

**Comprehensive Help and Documentation:**

* Current Issue: The app lacks comprehensive assistance and documentation.
* Improvement: Develop a detailed help section with searchable FAQs, step-by-step guides, and tutorial videos.

**Labeling and Iconography:**

* Current Issue: Labels and icons can be unclear, increasing cognitive load.
* Improvement: Enhance labeling and icon clarity and consistency to make functions easily recognizable.
* By addressing these areas, INN DOORS can further optimize usability and ensure a seamless experience for all users during their travel planning and booking processes.

**Critique and Summary**

**Advantages:**

**Comprehensive Features:**

* User authentication: Provides safe access to private information.
* AI-driven recommendations that are specifically tailored to booking choices improve the whole travel experience.
* Booking List Integration: Combines reservation scheduling and administration in a seamless manner.
* User-Friendly Interface: Reduces learning curves and increases user acceptance with intuitive design.
* Notifications and Reminders: Prompt alerts help consumers stay on course.
* Data synchronization: Ensures uniformity between many devices.
* Customization Options: Enhances user happiness by enabling consumers to customize their experience.
* With comprehensive data, analytics and insights enable consumers to monitor and enhance their booking preferences.

**Improved Experience for Users:**

* By combining AI with data visualizations, a dynamic and adaptable tool that changes depending on the preferences and requirements of the user is produced.
* Professionals and tourists alike may benefit from customization and simple navigation.

**Disadvantages:**

**The intricacy of implementing AI:**

It might take a lot of money and experience to develop and improve AI algorithms for tailored suggestions.

**Designing User Interfaces:**

Careful design and usability testing are necessary to create an intuitive yet comprehensive interface that covers all needed functionality without overwhelming the user.

**Device Interoperability:**

It might be very challenging to guarantee flawless synchronization and constant performance across different devices and operating systems.

**Modifications to the requirements:**

We didn't change any of our original specifications or usability criteria when developing our prototype. With careful planning, we made sure that the initial requirements—which included booking analytics, AI-powered personalized recommendations, secure user authentication, smooth integration with booking lists, an easy-to-use interface, notifications, and reminders—adequately met the needs of our user base and project objectives. Because of the strength of our design and the clarity of our goals, our prototype satisfied every need without the need for modifications, guaranteeing a reliable and efficient development process.

**Summary of the Project**

Tourists, hotel industry workers, and anyone else looking for faster booking experiences may all benefit from using INN DOORS, an advanced reservation management tool. To improve trip planning and organization, this all-inclusive solution smoothly combines booking management, customized suggestions, and an easy design. Easy booking creation, updating, and prioritization with integrated booking lists and reminders are among the key features. AI-powered recommendations tailor lodging alternatives according to traveler interests and behaviors. Reminders, scheduling, and data synchronization across devices are all made simple for users to have seamless access. Learning curves are reduced via intuitive design, guaranteeing a seamless user experience. Users are notified about impending reservations and travel schedules through timely alerts. Travel history and booking trends may be used to provide insightful reports and analytics.

Iterative design procedures and continuous evaluations are essential to further improving INN DOORS. Extensive user testing, real-world scenario simulations, and ongoing feedback loops will help to improve the app's functionality and user experience. Insights into future travel patterns and booking habits, and the integration of financial management tools for planning and expenditure analysis, are possible future advancements. Extensive research on usability and practical testing will enhance user interactions and guarantee uniform performance on many platforms and devices. We will improve accessibility features to meet the demands of a wider range of users.

INN DOORS seeks to provide a highly effective and user-focused booking solution by deliberate investments in cutting-edge prototype technologies, knowledgeable usability consultants, and continuous user feedback. INN DOORS is dedicated to giving customers the best possible booking experience by giving them the tools they need to successfully manage their finances, travel schedules, and bookings. INN DOORS aspires to be the go-to booking app for travelers looking for frictionless booking experiences and optimized trip planning via ongoing updates and user-focused additions.