**SYSTEM PROPOSAL FOR THE COMPUTING**

**GROUP PROJECT**

**GROUP-96**

**PLY BATCH 11**

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PROPOSED RESERVATION OR BOOKING SYSTEM.

INTRODUCTION

The proposed online booking system aims to address a common issue: the lack of a comprehensive platform that multitasks the booking process for a wide range of services. This platform is envisioned to provide users with the convenience of reserving appointments at salons, purchasing movie tickets, and scheduling medical consultations, all through a single, unified system. The project's initial focus revolves around these key domains, with plans to expand into other service sectors in the future, driven by technological feasibility and user demand.

To bring this project to life, the development will primarily center around html and related technologies. Java, renowned for its reliability, scalability, and cross-platform compatibility, is an excellent choice for this endeavor. Leveraging Java-based web frameworks and databases, the project can lay the foundation for a robust and adaptable system.

The project's first approach begins with the creation of a web application. This web-based platform will be accessible from various devices and browsers, providing an endless booking experience for users. In the next phase, the system will evolve into dedicated mobile applications, catering to both Android and iOS environments. This transition to mobile apps enhances accessibility, allowing users to make bookings on the go.

Moreover, recognizing the importance of addressing the unique language requirements of its target audience, the project intends to compile the system into the native language of Sinhala. This localization effort goes beyond mere translation; it encompasses adapting date formats, currency symbols, and cultural nuances to create a user experience with the Sinhala-speaking community.

Ultimately, this project aspires to offer a convenient, secure, and versatile booking platform that simplifies the lives of its users. It not only fills a gap in the market but also unifies the potential for technology to merge technology with business.

OBJECTIVES.

Our system has five main objectives.

1. Securing the payments of the customer.

As the system is an online platform and since it requires the payment of the customer reach the seller securely it makes that one of our most primary objectives and using standard industry encryption, we plan on protecting the financial information of people.

1. User-friendliness and ease of use.

In order to attract users, it is essential for the application to run in a very simple manner making the tasks and functions to be accessed by anyone without hassle.

All the capabilities of the application should be merged into an attractive and an easily distinct-able interface.

1. Availability and accessibility.

The system should be up and running 24/7 facilitating it with real time updates and making sure the users are able to access the application anywhere from any device.

1. Blending with the merchants.

Merchants play a vital role in the system as they are the pillars of making this service available to the users. So, we should satisfy the requirements of these merchants in order to keep the services ongoing.

1. Automatic mail and SMS generation.

It is a must to generate mails and text messages at the nick of time to ensure that the customers receive the required information of their insights.

Our target is to balance the system that we create in all these different aspects to meet the higher expectation of the end product being sustainable to the users and the community. The system should compose of simplicity alongside with the above-mentioned targets, the system should be attracted to users and the users should not have second thoughts in choosing our service.

APPLICATION FEATURES

* **Admin login**: providing a space for developers to login and manage the system.
* **Merchant login**: provides a space for merchants or service providers to update details about their listings.
* **User login**: using google or email registration.
* **Listings**: listings of the selected categories each listed in a separate space. (i.e.: listings of movie tickets in a different space, consultations in a different space and reservations for a different place. Each available on the home screen for selection.) The availability of each item or service is marked beneath the option of selection.
* **Instant communication**: with providence of instant mail and text messages with the users they have the option of connecting with the service provider.
* **Payment Management**: merger of the application with payment methods enabling the consumer to pay with secure means.
* **Policies and cancellations:** information on cancellation, refunding and rescheduling options and policies should be available upon customer request.
* **Reviews and ratings**: a different section for users to provide feedback about the services.
* **Location services**: merging the application with google location API for the ease of access for the customers to find the locations of the required services.

THE PROCESS OF MAKING THE APPLICATION.

* Front-end and back-end development.
* Using technologies like HTML, CSS, JS and bootstrap the selected design would be implemented alongside with the UI/UX tools. The front-end would be made very simple as possible.
* Back-end development would be done with the selection of node JS or python (chosen as per convenience) and an appropriate data base would be chosen.
* Use of API’s would be a must.
* Authentication of user’s is used as a secure measure.
* Hosting and database management.
* With a bought domain the web app would be hosted (with SSL certificates too.)
* Transaction(payment) management.
* The system would be facilitated by PayPal and the transactions should protect customer details from third parties as a security measure.
* Location services.
* Using geolocation API, the location of the relevant places would be visible to the customers if needed.
* Integrity management.
* Using adequate security measures such as data encryption and prevention from other security flaws and tracking the activity across the site would be two steps that are consideration.
* The site should be not prone to web traffic, instead should work and be able to handle high capacity of users.

TARGET USERS.

We are targeting users of any aspect which are willing to book any service that is available on our site. The site primarily has movie ticket booking, doctor appointments and saloon receptions. So, anyone mainly above 14 and higher of age with the use of any mobile or computer or any capable device. People with interest and financial capability can simply log into the site after completing the authentication and then reserve anything of interest.

GANNT CHART.

