PUSL2021
COMPUTING GROUP PROJECT

Project Proposal

Study room, lecture room reservation
System for University

Group A 35

Contents

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Project Overview

At NSBM Green University in Sri Lanka, we are able to reserve study rooms, Lecture room, Laboratory rooms for our study purposes. But frequently we don't have an online system, therefore in order to receive approval, we must fill out a form and get the academic staff's signature. As a result, it's difficult to always meet that condition because it's so busy down there. In this situation efficient room reservations play a pivotal role in ensuring smooth academic activities, meetings, and study sessions.

So we decided to build a system or an application to get around all these issues. This project is a pioneering project will develop in response to the growing demand for a robust and efficient room reservation system at our university. In the face of evolving academic needs, this system will conceive as a comprehensive solution to facilitate the seamless reservation and management of study rooms, lecture halls, and laboratory spaces.

This system is intended to be a user-friendly platform accessible via both web and mobile applications, providing real-time updates on room availability. Its main goal is to make things simpler to students, staff and administrators. The application makes sure that users can easily locate available spaces, reserve them with a few simple clicks, and receive real-time notifications and reminders regarding their bookings. This transparent and user-friendly approach not only improves the efficiency of hall reservations but also upgrades the university experience to a next level.

Our application's primary features include a simple administration interface that enables administrators and staff to manage bookings with ease. The technology streamlines room allocation by automating the approval and allocation procedure, lowering the possibility of schedule conflicts. Our application supports the university's commitment to innovation in higher education by offering secure user authentication, user profiles with reservation history, and in-app support services. This initiative, which has a one-year timeframe for planning, development, testing, and deployment, will also mark a significant turning point in the history of our universities and higher education.

Project Objectives

The primary objectives of the project are as follows:

1. **Efficient Room Reservations:** Users can view the map of their faculty and can see what the reserved rooms are, what are the available spots, and they can reserve them just with few clicks.

2. **Secured sign in/log in system:** User should pick either Student or Staff section then they can log in to the system using their university credentials. And then they have to verify their details with a authentication setup.

3. **Administrative Streamlining:** The project includes an intuitive administrative interface for staff and administrators to manage reservations, simplifying room allocation, and reducing scheduling conflicts.

4. **Enhanced user experience:** Users can see their past bookings, upcoming bookings using system.

By simplifying the room reservation process, reducing waiting times, reducing filling papers, and increasing transparency, the project seeks to enhance the overall experience of our university community, supporting academic and administrative efficiency.

Target Audience

Students: Students are a significant part of this project. They use this system to find and reserve study rooms, ensuring they have a quiet and suitable work space for their studying.

Faculty and Staff: Faculty members and university staff often require spaces for conducting meetings, workshops, and events. The system should facilitate easy scheduling and reservation of lecture halls and meeting rooms to support academic and administrative activities.

Administrators: admininstrative staff are responsible for managing rooms allocations, approvals and hand-over the keys.

System Features and Description

The system features are crucial components that will enable students, staff, faculty members and administrators to efficiently manage room reservation process. Here are the key features of our system:

1. **Real-time Room Availability:**
   Provides up-to-the-minute data on room availability using the map, enabling users to check which rooms are vacant at any given time.

2. **User Authentication:**
   Secure user authentication with university credentials, ensuring the system's reliability and user data protection.

3. **Reservation Management:**
   Allows users to modify or cancel reservations, providing flexibility to accommodate changing needs and schedules.

4. **Notification System:**
   Sends automated notifications to users and staff members, informing them of reservation approvals, changes, and cancellations, ensuring users are always kept informed.

5. **Admin Dashboard:**
   A dedicated administrative interface for staff and administrators to manage rooms reservations, approve requests, hand over keys, and monitor room allocations.

6. **User profiles:**
   Using user profile interface users (students, faculty members and staff) providing access to check their booking history, preferences, and account settings.
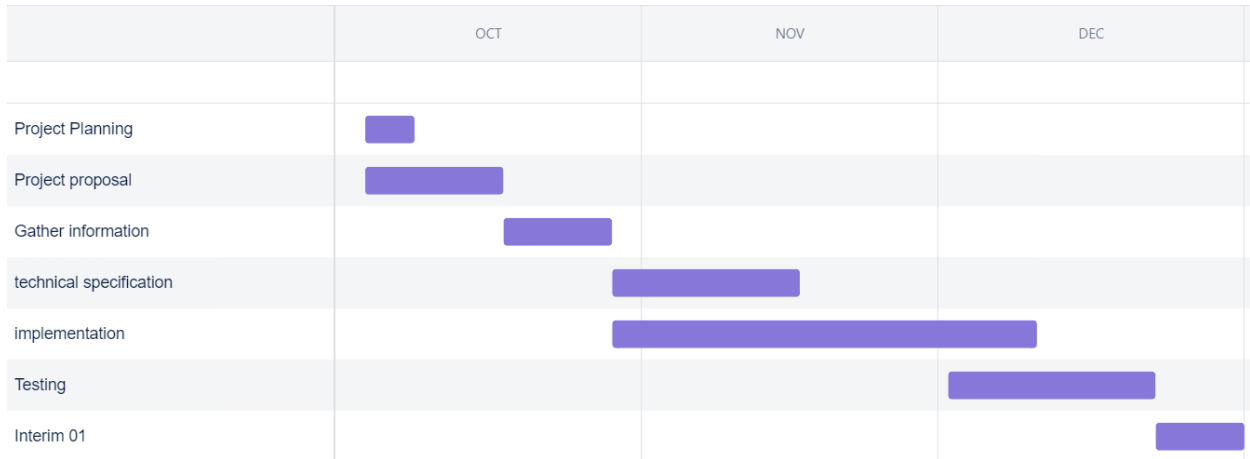
7. **Support and FAQs:**
   In-app support features and frequently asked questions (FAQs) to assist users, answer common questions and troubleshooting issues with the system.
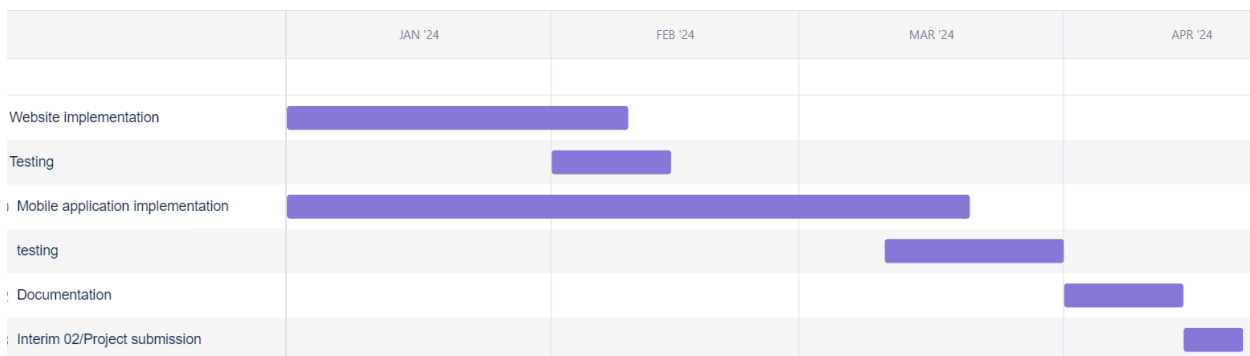
8. **User contact**
   Enables users to contact study room, lecture room conductors or administrators for any inquiries, or issues.

Timeline

Interim 01

	OCT	NOV	DEC
Project Planning	▉		
Project proposal	▉▉		
Gather information	▉		
technical specification		▉	
implementation		▉▉▉	
Testing			▉▉
Interim 01			▉

Interim 02

	JAN '24	FEB '24	MAR '24	APR '24
Website implementation	▉▉			
Testing		▉		
Mobile application implementation	▉▉▉▉			
testing			▉	
Documentation				▉
Interim 02/Project submission				▉

Throughout the timeline, we must keep open lines of clear communication with the project team, stakeholders, and end-users. Regularly we review the progress against the project plan and, and we are ready to make changes as necessary to accomplish milestones and project objectives.

Conclusion

In conclusion, this project aims to revolutionize study rooms, lecture halls, laboratory spaces, library spaces reservations at our NSBM Green university. We seek to improve the whole university experience by providing a productive and user-friendly system that appeals to students, teachers, staff, and administrators.

We will work really hard to plan, create, test, and launch this project over the course of the next 12 months. This project aligns with our commitment to innovation and promises to simplify room reservations, reduce waiting times, reduce filling forms, and promote an efficient and sustainable university environment. Together we're moving toward a more successful and fulfilling college experience.