



Patuakhali Science and Technology University

Faculty of Computer Science and Engineering

CCE 310 :: Software Development Project-I

Sessional Project Proposal

Project Title : PSTU Diary

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Submitted from, Md. Sharafat Karim ID : 2102024, Reg : 10151, Semester : 5 (Level-3, Semester-1)	Submitted to, 1. Prof. Dr. Md Samsuzzaman Professor, Department of Computer and Communication Engineering, Patuakhali Science and Technology University. 2. Arpita Howlader Assistant Professor, Department of Computer and Communication Engineering, Patuakhali Science and Technology University.
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PSTU Diary

1. Abstract

PSTU Diary is a cross-platform application designed to help students and faculty members of Patuakhali Science and Technology University (PSTU) efficiently access resources and contact information of various departments, faculties, and administrative offices. The app aims to provide a user-friendly interface for quick navigation and retrieval of essential information, enhancing the overall experience of the university community.

It stores contact information of our University “Patuakhali Science and Technology University” all employees including Teacher, Staff, MLSS and Others who are directly or indirectly related to this University. Contact information includes phone number, email address.

2. Objectives

- To develop a user-friendly mobile application that provides easy access to contact information of PSTU departments and personnel.
- To ensure the application is accessible on Web, Android and iOS platforms.
- To enhance the overall communication and connectivity within the PSTU community.
- To provide administrative features for updating and managing contact information.
- Implement different pages for different club and societies of PSTU.
- Implement a notice board for important announcements and updates.
- Implement a feedback system for users to report issues or suggest improvements.
- Implement blood donor finder feature for emergency situations.
- Implement a lost and found section for reporting and locating lost items.
- Implement a campus map for easy navigation around the university.
- Implement an event calendar for upcoming university events and activities.
- Ensure data security and privacy for all users of the application.

3. Problem Statement

Existing applications and websites often lack a centralized and user-friendly platform for accessing university contact information. Users may face difficulties in finding accurate and up-to-date information, leading to inefficiencies in communication.

Also the existing application “PSTU Diary (পরিগ্রহ ডায়েরি)” is no longer maintained and has several limitations, including a less intuitive user interface, lack of features for updating contact information, and limited platform support (only available on Android). This creates a need for a more modern, efficient, and accessible solution.

4. Related Work

- [1] **PSTU Diary** (পৰিৱৰ্তি ডায়েৰি) - **Old Version** - Old version, no longer maintained. It lacks the ability to update contact information and has a less intuitive user interface. It also doesn't support iOS or web platforms.
- [2] **PSTU Diary** (পৰিৱৰ্তি ডায়েৰি) - **Admin Version** - Only for Admin, with unstable API. It is not available for general users and has limited functionality. Database is not well-structured.

5. Scope

The application will focus on providing contact information for all departments and personnel within PSTU. It will include features such as search functionality, categorization of contacts, and an admin panel for updating information. The app will be developed for Android, iOS, and web platforms to ensure wide accessibility.

6. Methodology

6.1. Technology Stack

The development of PSTU Diary will follow an agile methodology, allowing for iterative improvements and user feedback. Our technology stack will includes,

Frontend	Flutter[3] (Dart)
Backend	Supabase
UI/ UX Design	Figma
Database	PostgreSQL
Authentication	JWT or OAuth2
Hosting (web app)	Vercel or Netlify
CI/CD	GitHub Actions, Docker (optional)

Table 1: Technology Stack for PSTU Diary

6.2. Design Principles

The design of PSTU Diary will adhere to the following principles,

Material Design	Following Google's Material Design guidelines for a consistent and modern UI/UX in Android
Responsive Design	Ensuring the application works seamlessly on various screen sizes and orientations including web app.
User-Centric Design	Focusing on user experience and ease of use, with intuitive navigation and clear UI elements.
Cross-Platform	Ensuring consistent functionality and design across Android, iOS, and web platforms.
Documentation	Providing comprehensive documentation for developers and users, including API documentation and user guides.

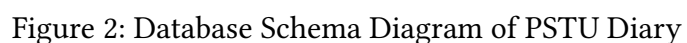
Table 2: Design Principles for PSTU Diary

7.1. Flow Chart Diagram

7.1. Flow Chart Diagram



7.2. Schema Diagram



The above Figure 2 illustrates the database schema for PSTU Diary, showing the tables, their fields, and relationships between them. The schema is designed to efficiently store and retrieve bookmark data, user information, and other related entities.

7.3. ERD (Entry Relationship Diagram)

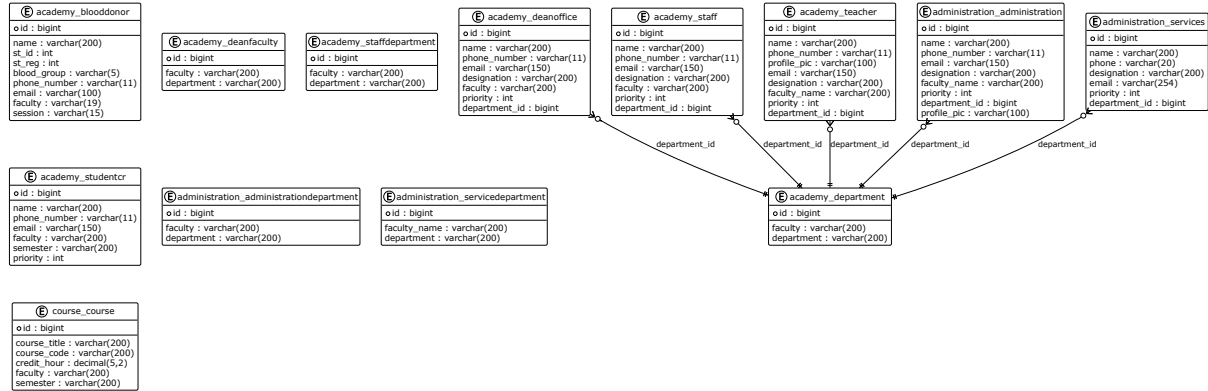


Figure 3: Entity Relationship Diagram of PSTU Diary

The above Figure 3 illustrates the entity-relationship diagram for PSTU Diary, showing the entities, their attributes, and relationships between them. The ERD helps in understanding the data model and how different entities interact with each other.

More details about the database schema and relationships can be found in the documentation. Also there can be changes in the schema as per the requirement. More constraints and relationships can be added as needed. For example, adding foreign key constraints, indexes, and other optimizations for performance and data integrity.

7.4. Timeline (Gantt Chart)

The base timeline for the development of PSTU Diary is as follows,

Task	Week 1-2	Week 3-4	Week 5-6	Week 7-8	Week 9	Week 10	Week 11	Week 12
Requirements & UI Mockup	✓		✓					
App structure and navigation design		✓	✓					
Basic UI and supabase/ backend integration			✓	✓				
Admin panel design with role-based access control			✓	✓	✓			
Fetch data realtime from db						✓		
UI Polish & Documentation						✓	✓	
Final Testing & Deployment								✓

Table 3: Development Timeline of PSTU Diary

7.5. UI Mockups

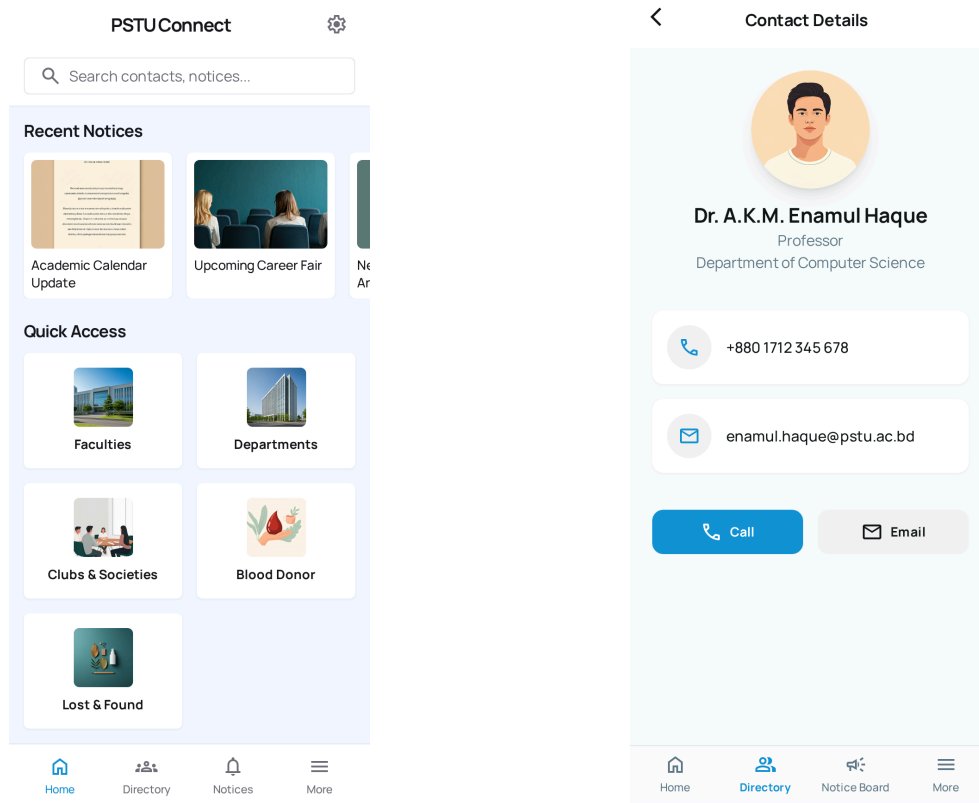


Figure 4: Add Bookmark page and reader page's UI concept

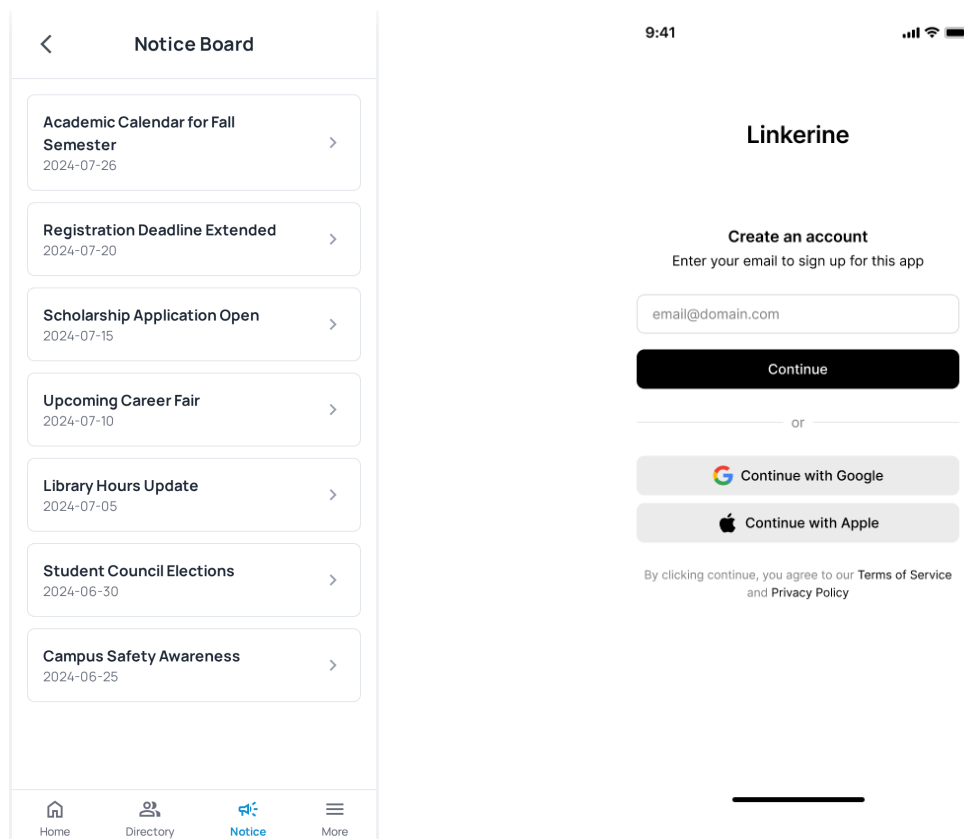


Figure 5: Settings and sign in page's UI concept

8. Limitations

1. Currently, it's not 100% translated.
2. Students can't update club related and co-curricular activities.

9. Future Plans

1. Implementing more features like event calendar, campus map, lost and found section, blood donor finder etc.
2. Adding more departments and personnel to the contact list.
3. Enhancing the admin panel with more functionalities.
4. Improving the UI/UX based on user feedback.
5. Implementing push notifications for important updates and announcements.

10. Result

The project is aimed to give students and faculty members of Patuakhali Science and Technology University (PSTU) a centralized platform to access contact information and resources efficiently. The application is expected to enhance communication within the university community and provide a user-friendly experience across multiple platforms.

11. References

- [1] "PSTU Diary (পরিগ্রহ ডায়েরি) - Old Version." Accessed: Jul. 18, 2025. [Online]. Available: <https://play.google.com/store/apps/details?id=com.monir24.pstu.diary&hl=en-US>
- [2] "PSTU Diary (পরিগ্রহ ডায়েরি) - Admin Version." Accessed: Jul. 18, 2025. [Online]. Available: <https://dairy.pstu.ac.bd/>
- [3] "Flutter." [Online]. Available: <https://flutter.dev/>

THE END

12. Weekly Report

No.	Date	Objective	Remarks
1		Project proposal with initial R&D	
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