

Project Proposal Form, 2025
Institute of Information Technology (IIT)
University of Dhaka

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Project Title: DU Alert - A Safety & Awareness Social Platform for DU

Motivation: As students of Dhaka University, we have noticed that when emergencies like harassment, theft, or accidents happen on campus, we don't have a quick and proper way to contact the proctorial team. Most of the time, we have to call someone or go directly to the office, which wastes valuable time and sometimes exposes personal issues. Many of us also hesitate to report incidents because we don't know the proper channel or fear that no one will respond. On the other hand, the proctorial team faces difficulties managing these issues since there is no single system to track or verify complaints properly. Seeing these problems, we realized the need for a digital platform where students can easily ask for help, report incidents with evidence, and get updates on their complaints. That's why we decided to create "**DU Alert**", a system designed to make campus safety faster, easier, and more reliable for everyone.

Project Description: **DU Alert** is a digital safety platform built for Dhaka University students and the proctorial team. It allows students to quickly ask for help during emergencies, report incidents with proof, and track their complaint updates - all within a secure and verified system. The aim is to make campus safety communication faster, easier, and more effective.

Key Features:

- **User Registration:** Students register using name, department, registration number, email, and phone number.
- **OTP Verification:** OTP is sent to the phone for verification before completing registration.
- **User ID & Password Setup:** After OTP verification, users create a unique ID and password.
- **Login & Authentication:** Secure login using JWT-based authentication for all users.
- **Forgot Password / Recovery:** Password reset via registration number and OTP verification.
- **Emergency Help (SOS):** "Need Help" button sends instant alert with student details to the proctor.
- **Incident Reporting:** Students can report incidents with category, description, and optional media.

- **Complaint Tracking:** Students can view complaint status: Received, In Progress, or Resolved.
- **Public Alert Posting:** Students can create public alerts after admin approval.
- **Admin Approval System:** Admin reviews and approves or rejects public posts before publishing.
- **Proctor Dashboard:** Proctors can view and manage complaints, SOS alerts, and communicate with students.
- **Admin Dashboard:** Admin manages users, posts, and tracks statistics and complaints.
- **Timeline Feed:** Displays approved alerts, updates, and resolved cases with reactions/comments.
- **Notification System:** Students get notified about complaint updates and admin responses.
- **Security & Privacy Control:** Data encryption ensures only verified users can access private info.
- **Media Storage:** Images and videos are securely stored in cloud platforms (e.g., Firebase, Cloudinary).
- **Monthly Statistics & Analytics:** Generates monthly reports showing complaint and safety trends.
- **Logout Functionality:** Secure logout option for all users to end sessions safely.

Exciting Features:

- **AI Summary Generator for Proctors:** Proctors can view a quick AI-generated summary of reported incidents.
- **Smart Alert Prioritization:** The system automatically flags and prioritizes urgent SOS or high-risk reports.
- **Auto Location Sharing:** When the SOS button is pressed, the system automatically captures and sends the student's latitude and longitude.

Strategy & Timeline: The strategy we are planning to follow is to divide our project into modules and parallelly develop the independent modules. We would use the pair programming approach for interdependent modules.

The approximate timeline for the whole development process is as follows-

Task	DU Alert Timeline											
	Week -1	Week -2	Week -3	Week -4	Week -5	Week -6	Week -7	Week -8	Week -9	Week -10	Week -11	Week -12
Project Planning & Requirement Analysis												
System Design & Architecture												
UI/UX Design												
Backend Setup												
User Registration & Login Module												
SOS Alert & Auto Location System												
Incident Reporting & File Upload												
Complaint Tracking System												
Proctor & Admin Dashboards												
Timeline Feed & Public Posts												
AI Summary & Notifications System												
Testing, Debugging & Deployment												

Languages or Tools to be used: React.js, Node.js, PostgreSQL, SummaryGeneratorAPI, MapAPI & Github.

Supervisor's Name: Dr. Emon Kumar Dey

Signature of the supervisor:

Date: 06.11.2025

Before the Midterm Presentation 1:

I confirm that the progress is satisfactory and I am forwarding it for midterm presentation.

Signature of the supervisor: _____

Date: _____

Proposal Presentation Feedback (if any) :

Midterm 1 Presentation Feedback (if any) :

Midterm 2 Presentation Feedback (if any) :