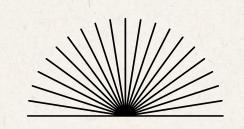


NAME OF PROJECT:

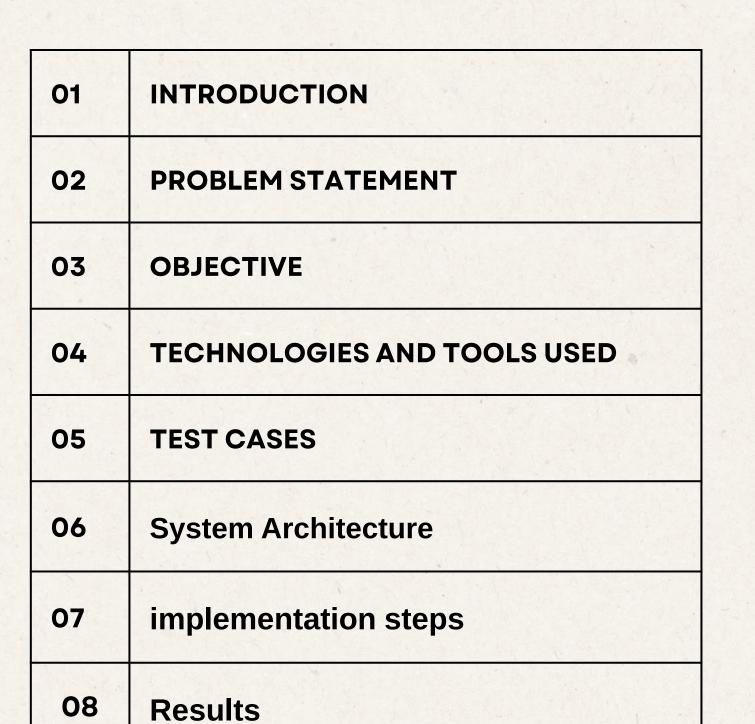
MANAGEMENT AND COMMUNICATION APP

PRESENTED BY:

MITUL MANOJ TOM CHERIAN JITHIN RAJ KERIN SHAIJU



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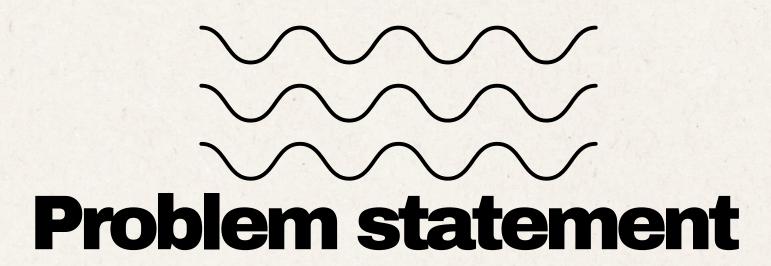


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INTRODUCTION

Our disaster management app connects citizens, volunteers, and authorities during emergencies. It enables real-time alerts, location sharing, and multimedia reports while providing offline disaster guidelines. The app also coordinates volunteers and collects post-disaster feedback, ensuring a reliable and efficient response system.

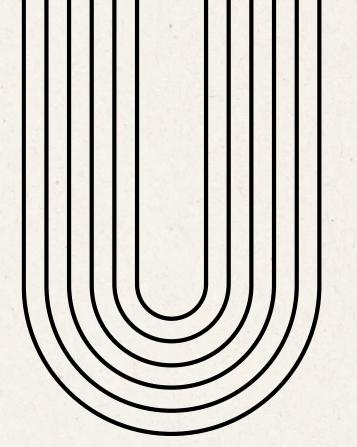


During disasters, communication failures and lack of coordination can delay response efforts, risking lives and worsening damage.

- 1. Communication Breakdown: Victims and responders struggle to share critical information in real time, especially during network outages.
 - 2. Uncoordinated Volunteer Efforts: Lack of a centralized system makes it difficult to track and manage volunteer availability and tasks.
 - 3. Delayed Emergency Alerts: Authorities face challenges in notifying people within affected areas promptly, which slows evacuation and rescue efforts.

<u>Objectives</u>

The goal of our project is to create a reliable and efficient disaster management system that enhances communication, coordinates volunteers, and supports real-time decision-making during emergencies



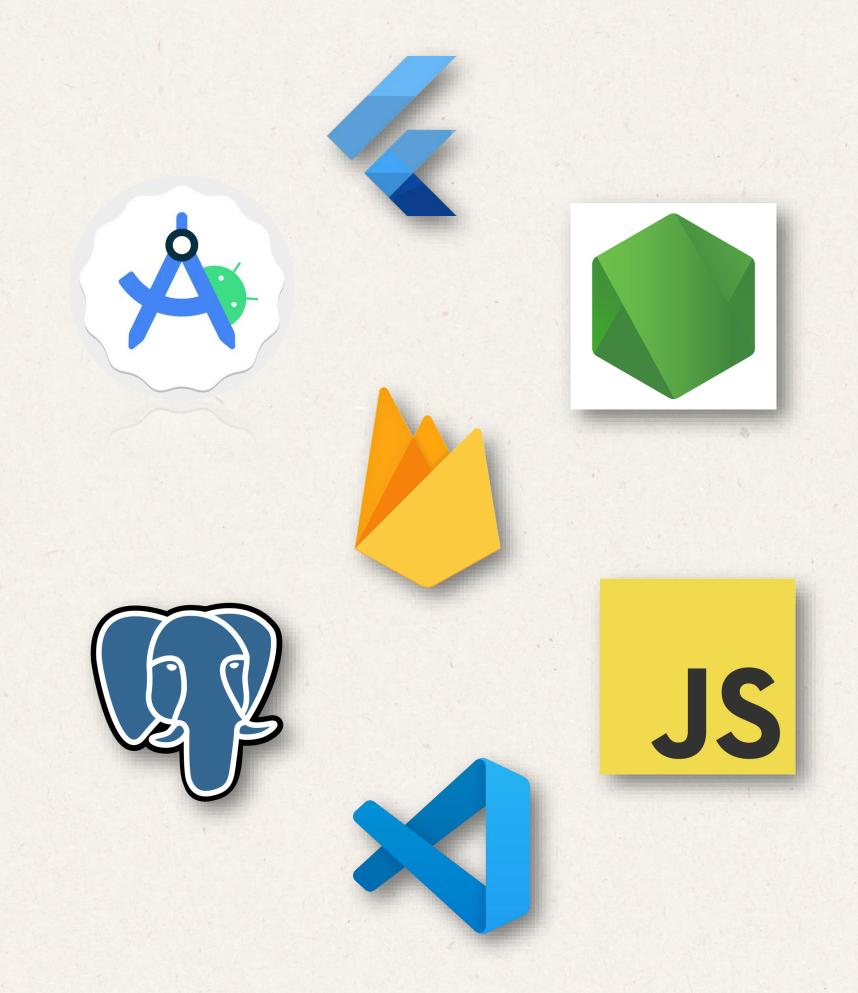
1. Enable Emergency Alerts : Allow users to send alerts with audio, video, and location data to authorities.

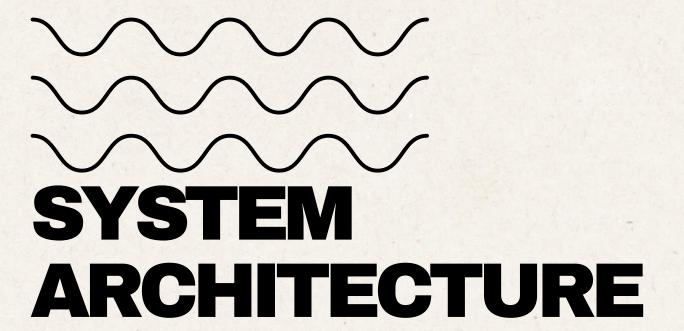
2. Proximity-Based Notifications: Notify people within a specified radius during disasters to ensure timely evacuation or action.

3. Volunteer Management : Register volunteers, track their locations, and assign tasks based on skills and proximity.

4. Offline Access to Resources : Provide disaster guidelines and critical information even during network disruptions.

Technologies & Tools Used





Presentations are communication tools that can be used as demonstrations, lectures, speeches, reports, and more. It is mostly presented before an audience. It serves a variety of purposes, making presentations powerful tools for convincing and teaching.

Architecture Presentation Layer Android Flutter Front End View Volunteer User Login Disaster Participation Application Layer NodeJS Backend Volunteering **User Service** Service Alert Service Service Frameworks And Technologies HTTP **FireBase** WebSockets Express SSL **JWT** Data Layer PostgreSQL Database Disaster Guidelines Volunteer nformation





Phase 1 System design and architecture planning.	Phase 2 Requirement gathering and feature analysis.
Phase 3 UI/UX design for a user-friendly interface.	Phase 4 Development of the front-end module using Flutter.
Phase 5 Database schema design and integration with PostgreSQL.	Phase 6 Back-end module development with Node.js and API setup.
Phase 7 System testing for functionality, security, and performance.	Phase 8 Deployment and final user acceptance testing

RESULTS 🛓

Core features - sending emergency alerts, volunteer coordination, and real-time notifications - have been successfully implemented and tested.

The system reliably handles communication.

Initial user testing shows the system meets the requirements, with smooth functionality and minimal bugs.

Users successfully sent alerts, received notifications, and accessed offline resources as intended.



THAN YOU