

# **OFFLINE CHATBOT FOR DISASTER MANAGEMENT USING AI**



# Overview

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- *User Needs*
- *Market Analysis*
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# About the project

Our disaster management app is a mobile application designed to help individuals, communities, and organizations in preparing for, responding to, and recovering from natural disasters using an offline chatbot.



# Key Features



## Preparedness

Provides information on creating emergency plans, assembling disaster supply kits, and accessing resources such as evacuation routes, emergency contacts, and shelter locations.



## Warning Systems

Integrates with official alert systems to provide real-time notifications about impending disasters, such as severe weather warnings, earthquakes, or other hazardous events.



## Communication

Includes communication tools to help users stay connected with emergency responders during a crisis. This includes features like SMS alerts, group messaging, or location-sharing capabilities.



# Key Features



## Response Coordination

Facilitates coordination among emergency responders, volunteers, and affected communities by offering features like incident reporting, resource allocation, and volunteer management.



## Recovery Assistance

Health care services along with the necessary supplements will be provided, shelter with clothes if necessary can be arranged



# User Needs



## Emergency Alerts:

- Real-time notifications about disasters, including weather alerts, natural calamities.
- Users can customize alert settings based on their location and preferences.



## Disaster Preparedness:

- Information on how to prepare for different types of disasters, such as earthquake, hurricane, flood, etc.
- Checklists for emergency kits and evacuation plans.



## Emergency Contacts:

- Access to emergency contact numbers for local authorities, hospitals, fire departments, police, etc.
- Option to add personal emergency contacts.

# User Needs



## **Shelter, Evacuation Centers and Resource Locator:**

- Maps showing nearby shelters and evacuation centers.
- Information about available facilities, capacity, and services provided.
- Tool to find nearby resources like hospitals, pharmacies, gas stations, and emergency supply stores.

## **Reporting Communication, Community Forums or Groups:**

- Information on how to prepare for different types of disasters, such as earthquake, hurricane, flood, etc.
- Checklists for emergency kits and evacuation plans.
- Platform for users to connect with others in their community, share information, and offer assistance during emergencies.

## **Real-time Updates:**

- Live updates on the status of ongoing disasters, road closures, evacuation orders, etc.
- Integration with official sources like weather services, government agencies, and news outlets.

# User Needs



## Volunteer and Donation Opportunities:

- Information on how users can volunteer their time or donate resources to assist with disaster relief efforts.



## FAQ and Help Section:

- Answers to common questions about disaster preparedness, response, and recovery.
- Support resources for troubleshooting app issues.

# Market Analysis

Disaster management apps represent a growing market driven by increasing awareness of disaster preparedness and smartphone penetration. Key players include government agencies like FEMA and organizations like the Red Cross. Trends include AI integration for better prediction and real-time data utilization. Challenges include ensuring connectivity during disasters and addressing privacy concerns. Regulatory environments vary, offering opportunities for innovation and partnerships. Overall, the market offers potential for significant impact in improving disaster response globally.

# Scalability

## Localization



The app can be used in multiple regions or countries, and that it supports multiple languages and cultural preferences. This can also involve translating text, adapting content, and incorporating region-specific features or emergency protocols.

## Collaboration



Exploring opportunities to collaborate with government agencies, NGOs, businesses, and other stakeholders to expand the app's reach and impact. Partnerships can provide access to additional resources, expertise, and user networks, enabling more scalable growth.

## User Interface and Experience (UI/UX)



Designing the app's UI/UX in a way that remains intuitive and user-friendly even as the user base expands. Conducting user research and testing to gather feedback and make informed design decisions.

# Benefits

Overall, using our disaster management app enhances preparedness, facilitates effective response and communication, and promotes community resilience, ultimately helping users stay safe and informed during times of crisis.



**DISASTER  
MANAGEMENT**

# Our App's UI

### Home

The Home screen displays a weather forecast for Chennai (35°C) with a 20% chance of rain. It shows a message from user Alex stating "Hope You're Safe!" with a "I'm Safe" button. A red alert box indicates "2 Districts to be hit by cyclone Michung by 4:30 am". Below this are news items about heavy rainfall and an earthquake, and a climate report for Chennai.

### Preparedness

The Preparedness screen lists disaster preparedness tips:

- Stay informed with reliable weather updates.
- Prepare an emergency kit with essentials.
- Secure your home by reinforcing doors and windows.
- Know evacuation routes and shelters.
- Establish a communication plan with family.
- Protect important documents in waterproof containers.
- Test and prepare backup power sources.
- Stay indoors during the cyclone.
- Follow instructions from authorities.
- Check on neighbors, especially the vulnerable.
- After the cyclone, avoid hazards like flooded areas and downed power lines.

### Map -1

A map of India showing the path of Cyclone Michung. The cyclone is centered over the Bay of Bengal, with a color-coded intensity scale from green to red. Major cities labeled include New Delhi, Kathmandu, Gwalior, Allahabad, Nagpur, Bhubaneshwar, Hyderabad, Visakhapatnam, Bengaluru, and Madras. Temperature contours are also visible.

### Map -1

A detailed map of the Chennai area showing various locations and emergency services. The map includes landmarks like TCS, Siruseri, and ABC. It highlights several hospitals and schools with their names and contact numbers, along with their distances from the user's location. Shelters are also marked.

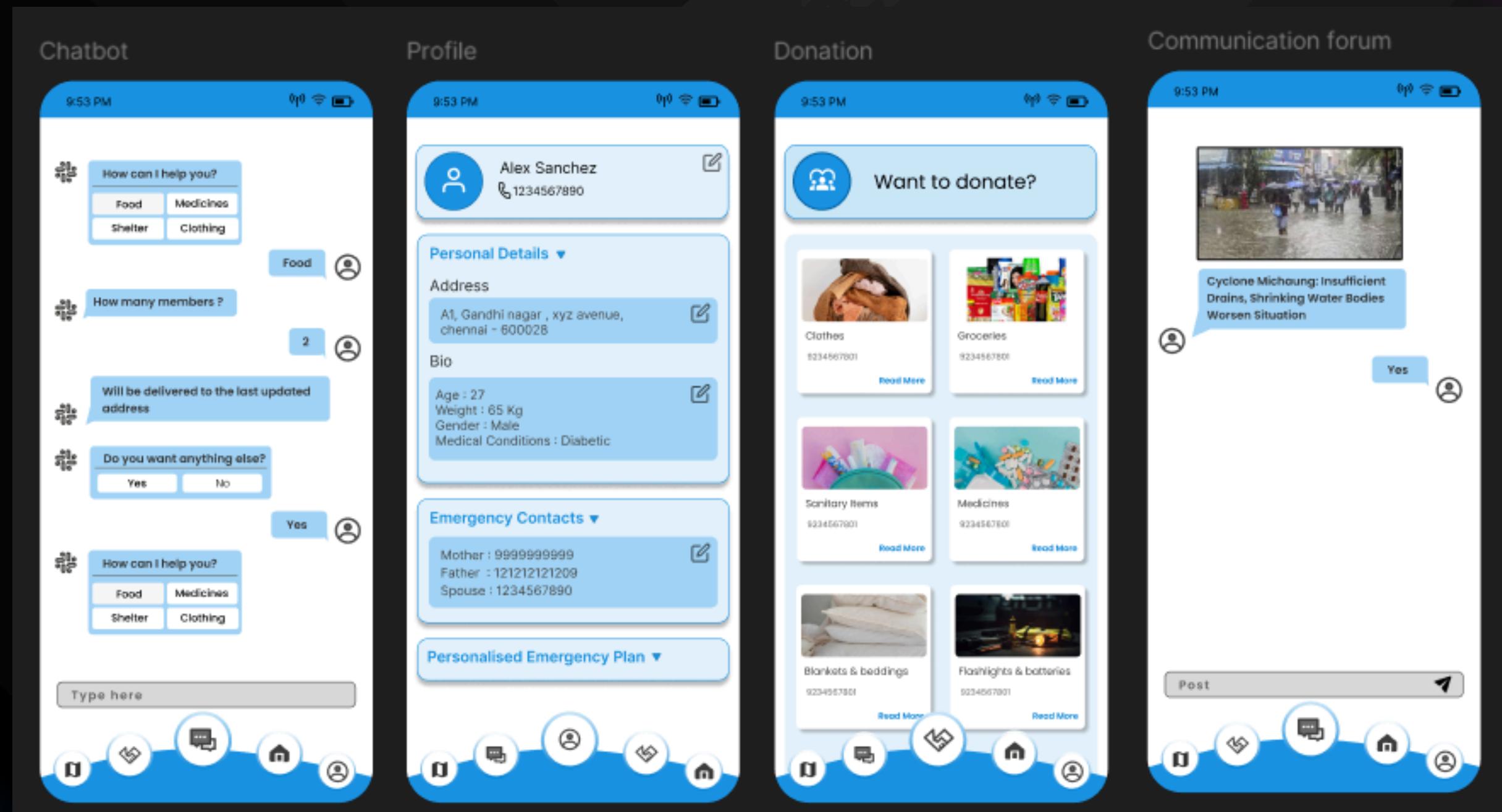
Location	Contact Number	Distance
LIT Medical College and Hospitals	1234567890	1.5 km
XYZ Hospitals	1234567890	2.0 km
ABC Emergency Hospital	1234567890	2.5 km
PQR Medical Foundation	1234567890	3.0 km
LMN Hospitals	1234567890	3.0 km
VLT Senior Secondary School	1234567890	1.5 km
SBOA School & Junior College	1234567890	2.0 km
PSS Engineering College	1234567890	2.5 km
CHT School of Design	1234567890	3.0 km
BVM Nursery & Primary School	1234567890	3.0 km

### Map -2

A detailed map of the Chennai area showing various locations and emergency services. The map includes landmarks like TCS, Siruseri, and ABC. It highlights several hospitals and schools with their names and contact numbers, along with their distances from the user's location. Shelters are also marked.

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# Our App's UI





# THANK YOU

For watching this presentation

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