

JEEVAN RAKSHA

A BENGAL-FOCUSED DISASTER RESPONSE PLATFORM

TEAM NAME: BYTES_RUNNER

TEAM MEMBERS: ROHINI KHAN, SAYAN MANDAL, AKASH MONDAL,
SOUMYADEEP SEN.

HACKATHON: HACK4BENGAL

PROBLEM STATEMENT



- Every year, West Bengal faces natural disasters.
- Delayed aid due to uncoordinated reporting and volunteer management.
- Victims struggle to report emergencies in low-connectivity zones.
- Aid often lacks transparency or real-time traceability.

OUR SOLUTION - JEEVANRAKSHA

It's a Unified progressive web app!!

Features Involved:-

- SOS reporting (text, voice, AI-powered)
- Real-time disaster mapping.
- Smart volunteer routing.
- Transparent blockchain-based aid ledger.
- Weather + disaster prediction dashboard.



Key Features Used

 **OTP-based login**

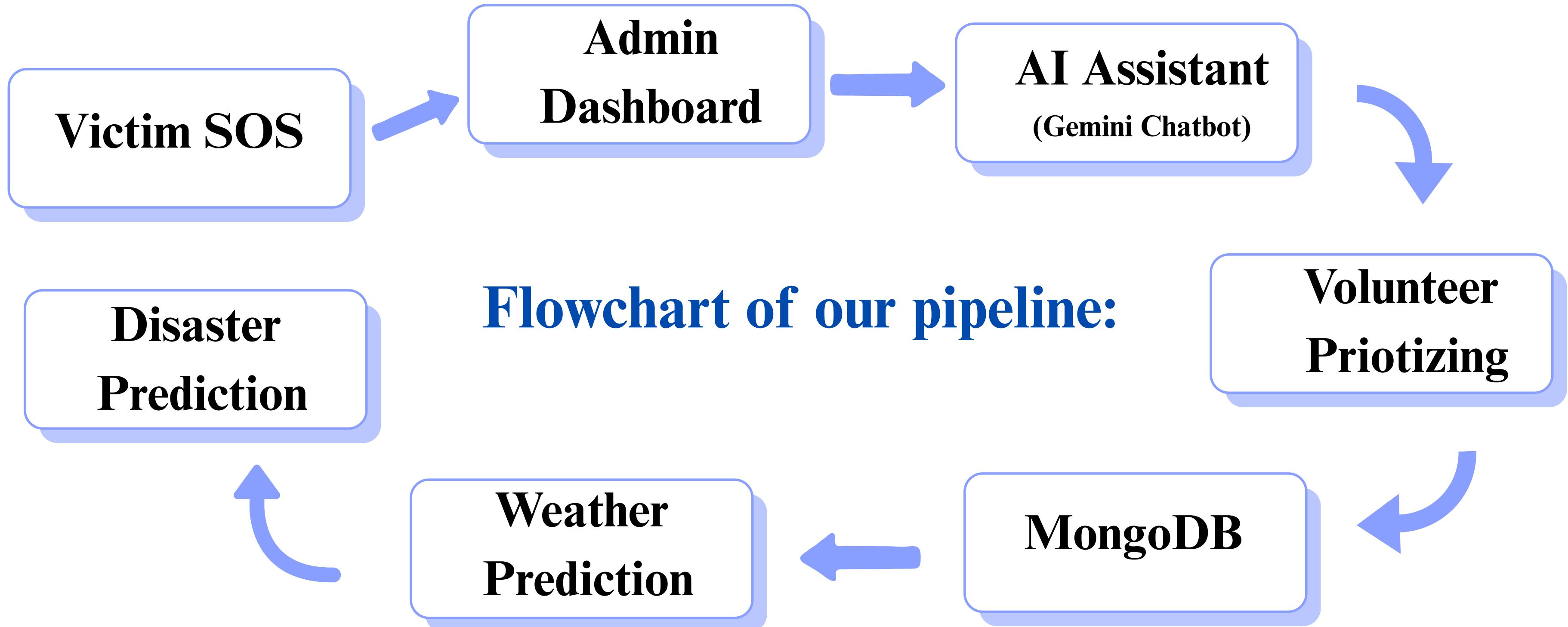
 **Map-based help board**

 **WebSocket real-time chat**

 **Volunteer dashboard**

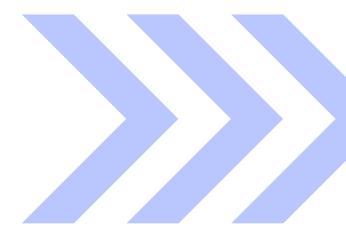
 **Admin control panel**

SYSTEM ARCHITECTURE



AI-powered Disaster SOS Classification Assistant

A multimodal intelligent system designed to help prioritize and categorize emergency requests—whether they come as text, voice, or image—in real-time using Generative AI and speech/image understanding.



PROBLEM STATEMENT

During natural disasters, people reach out for help in various ways—sending voice messages, photos, or short text updates. Emergency responders face three big challenges:

- Understanding the nature of the emergency quickly.
- Prioritizing responses based on urgency.
- Categorizing the type of help needed: Medical? Evacuation Food/Water?

Gemini AI

Spark creativity and conquer challenges with Google Gemini by your side.



► **Text**

► **Audio File (MP3/WAV)**

► **Image**

► **Live Microphone Input**



OUR SOLUTION

For every input we give in the web app, we are extracting the description via OCR for the image and ASR for the audio. We are using LLM(GEmini-2.0) as a Q/A chatbot in a web app. And the emergencies are classified into Medical,Food/Water,Shelter or Evacuation.

Some clips of our Solution

The screenshot shows the main dashboard of the app. At the top, there are four tabs: "Medical Emergency" (red), "Food/Water Crisis" (blue), "Shelter Needed" (green), and "Evacuation Help" (orange). Below these tabs, a message says "Ready to send medical emergency alert". In the center is a large green circle with a white phone icon and the word "SENT". To the left of the circle, it says "Active Conversations" and "No active conversations". To the right, it says "Help is On the Way!" with a checkmark, followed by "Volunteer assigned. Estimated arrival: 12 minutes".

The screenshot shows the "Training" section of the app. It displays various training modules: "Basic First Aid" (completed), "Disaster Response Protocols" (in progress), "Communication Guidelines" (not started), "Safety Procedures" (recommended), "Equipment Usage" (not started), and "Advanced Medical Response" (locked). Below these, sections for "Your Certificates" (Basic First Aid Certification, Emergency Response Certification) and "Recommended Learning Path" are shown.

The screenshot shows the main dashboard with a header "Help is Just a Tap Away" and a sub-header "Connect instantly with volunteers, NGOs, and emergency services during disasters. Your safety is our priority.". It includes a "Select Emergency Type" section with buttons for "Medical Emergency", "Food/Water Crisis", "Shelter Needed", and "Evacuation Help". Below this is a search bar "Describe your emergency situation...". A central area features a red "SOS" button and live statistics: "2,847 Active Volunteers", "15,429 Lives Saved", "4.2 min Response Time", and "23 Active Alerts". Under "Live Disaster Alerts", it shows real-time weather and emergency updates for a location near 22.5792°N, 88.4715°E. The bottom half of the dashboard features a "Real-Time Crisis Map" showing a map of an area with various emergency locations marked. A section titled "How Jevan Raksha Helps" lists features: Instant SOS, AI Route Optimization, Blockchain Transparency, Weather Prediction, Volunteer Network, and Multilingual Support. At the bottom, a call to action "Be Part of the Solution" encourages users to register as volunteers.

Visit our link:

<https://preview--crisis-connect-lifeline-india.lovable.app/>

Future Aspects



Projected Impact:

- **60% faster volunteer response**
- **Transparent aid saving 30% of lost supplies**
- **SOS reach improved in rural.**

Future:

- **Drone/IoT-based supply chain**
- **Government API integration (NDMA, IMD)**
- **Bengali voice assistant + community language support**



Thank You

