

# SMART INDIA HACKATHON 2025

- **Problem Statement ID - 25039**
- **Problem Statement Title - Integrated Platform for Crowdsourced Ocean Hazard Reporting and Social Media Analytics**
- **Theme - Disaster Management**
- **PS Category - Software**
- **Team Name - AlgoYoddhas**



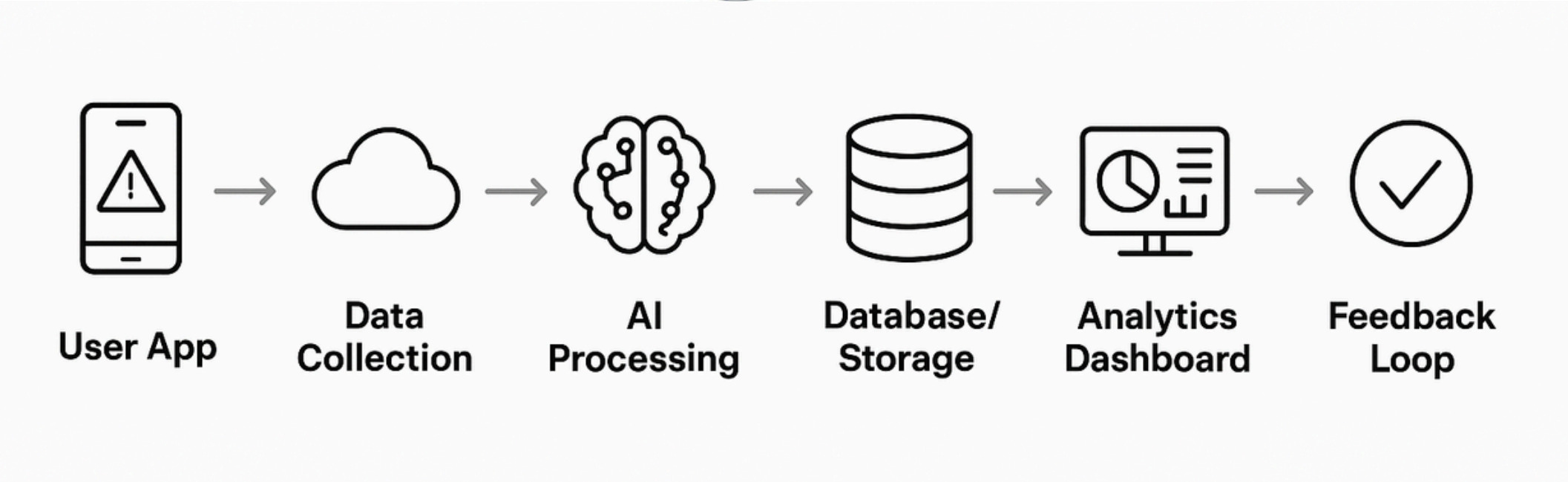
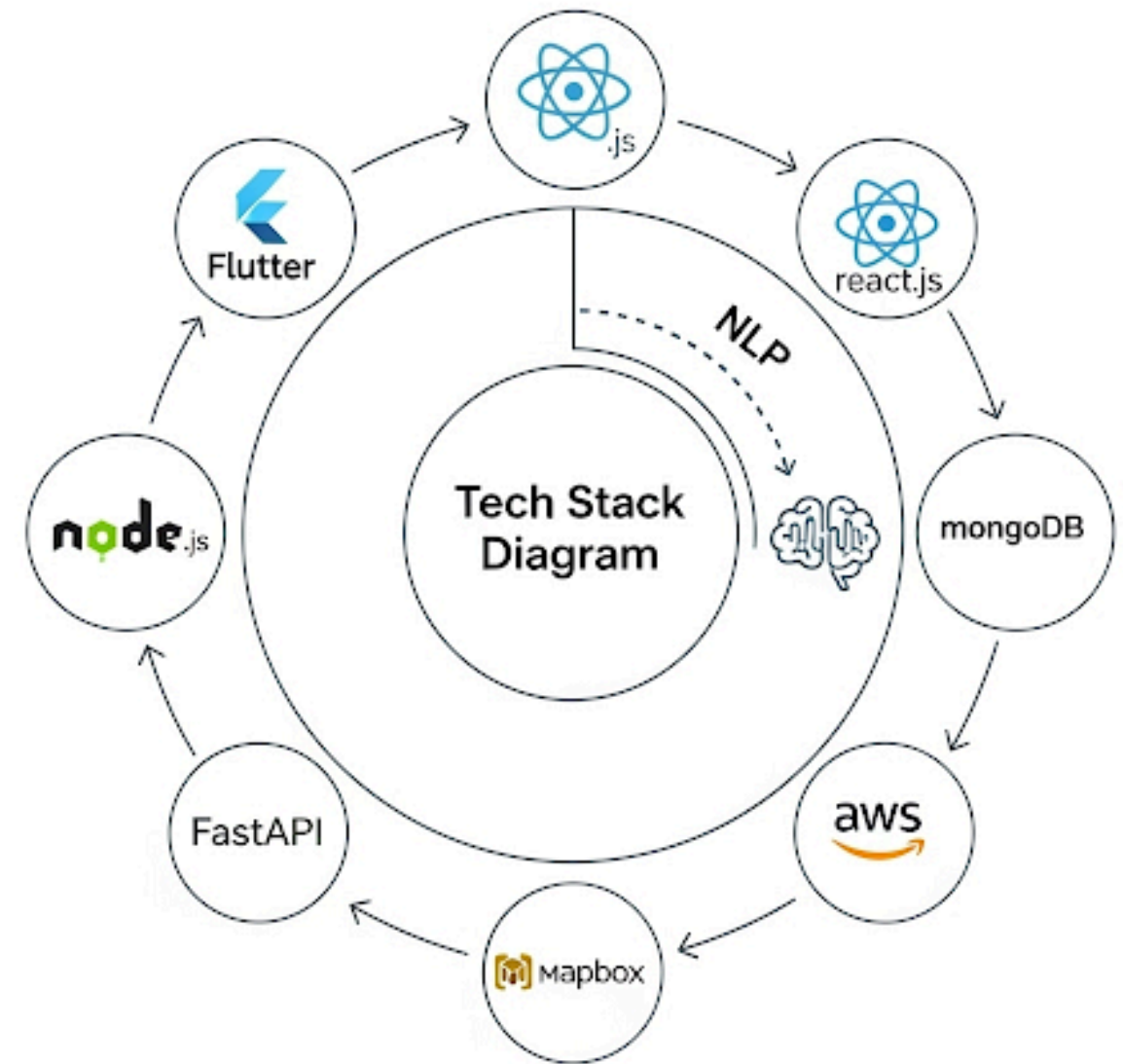
# Integrated Platform for Crowdsourced Ocean Hazard Reporting and Social Media Analytics

## • Proposed Solution

- Mobile + Web platform for citizen hazard reporting.
- Users submit geotagged reports (text, photos, videos).
- Real-time map-based dashboard with crowdsourced + social media data.
- NLP engine to analyze posts for hazards, urgency, sentiment.
- Dynamic hotspots for quick situational awareness.
- Multilingual & offline support for remote regions.



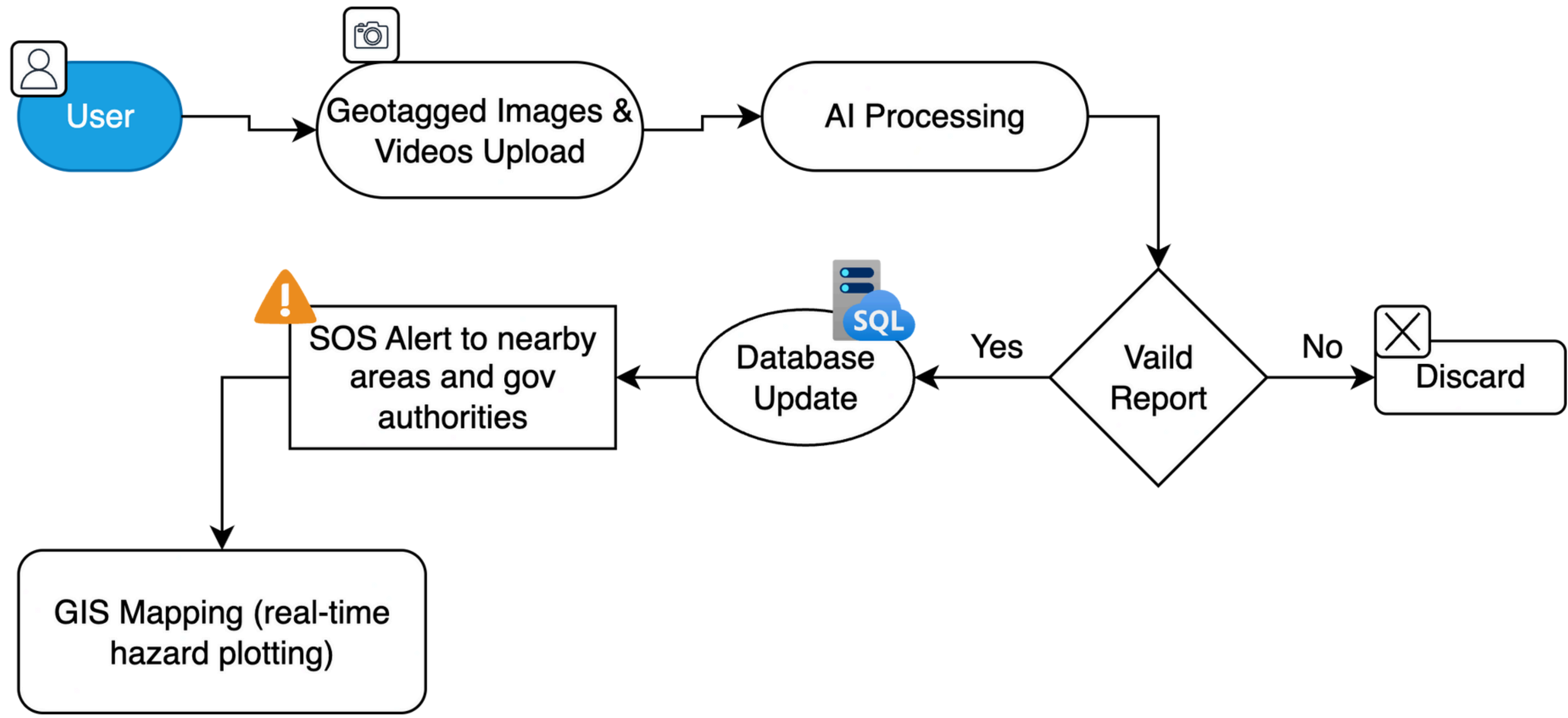
# TECHNICAL APPROACH





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## WorkFlow



- Feasible with open-source GIS + NLP tools.
- Cloud deployment + offline sync → works in remote coastal areas.
- Challenges:
  - Data verification
  - Fake reports
  - Limited connectivity.
- Solutions:
  - Role-based access + crowdsourced credibility score.
  - Offline sync capability.
  - AI filters to detect spam/irrelevant posts.

- Target: Citizens, coastal residents, disaster managers.
- Benefits:
  - 30% faster response → quicker rescue & reduced casualties.
  - Citizen participation → better awareness.
  - Valuable real-time data for INCOIS to improve early warnings.
  - Scalable for future use in other hazard reporting.
  - AI-powered insights → detect fake news & amplify real emergencies.



- INCOIS official site & advisory services.
- Existing platforms: Ushahidi, Safecast (crowdsourced hazard reporting).
- Research on social media disaster analytics (NLP).
- Govt. initiatives on early warning systems & disaster risk reduction.