



SMART INDIA  
HACKATHON  
2022



**KCG**  
COLLEGE OF TECHNOLOGY  
(A Unit of Hindustan Group of Institutions)  
A Christian Minority Institution



# AMAR RAKSHA

Sahayta | Seva | Suraksha  
EAST INDIA COMPANY





# DETAILS

Organization: National Disaster Response Force  
PS Code: GS906  
Team: East India Company  
Team Leader : Karan Sanjeev Nair  
Institute Code: 3110  
Institute: KCG College of Technology  
Theme: Disaster Management

# PROBLEM STATEMENT

— “ —  
*Community connect with trained NCC/NSS  
for remote locations during disasters.*

- 1098 lives lost in the past year till 17th July, 2022.
  - NDRF has rescued over 1.44 lakh precious human lives
  - Evacuated more than 7 lakh stranded people from disasters
  - NCC cadets and all NSS volunteers trained in disaster management and connected will result in efficient handling of such situations.
- ” —



# SOLUTION

“

- On a click of a button, all connections are activated and notifications are sent.
- They can be informed about events, and material can be circulated.
- The resources can be used to keep volunteers active.
- Notifications can range from emails to voice calls..
- Admin, Institutions and volunteers can be connected.

”

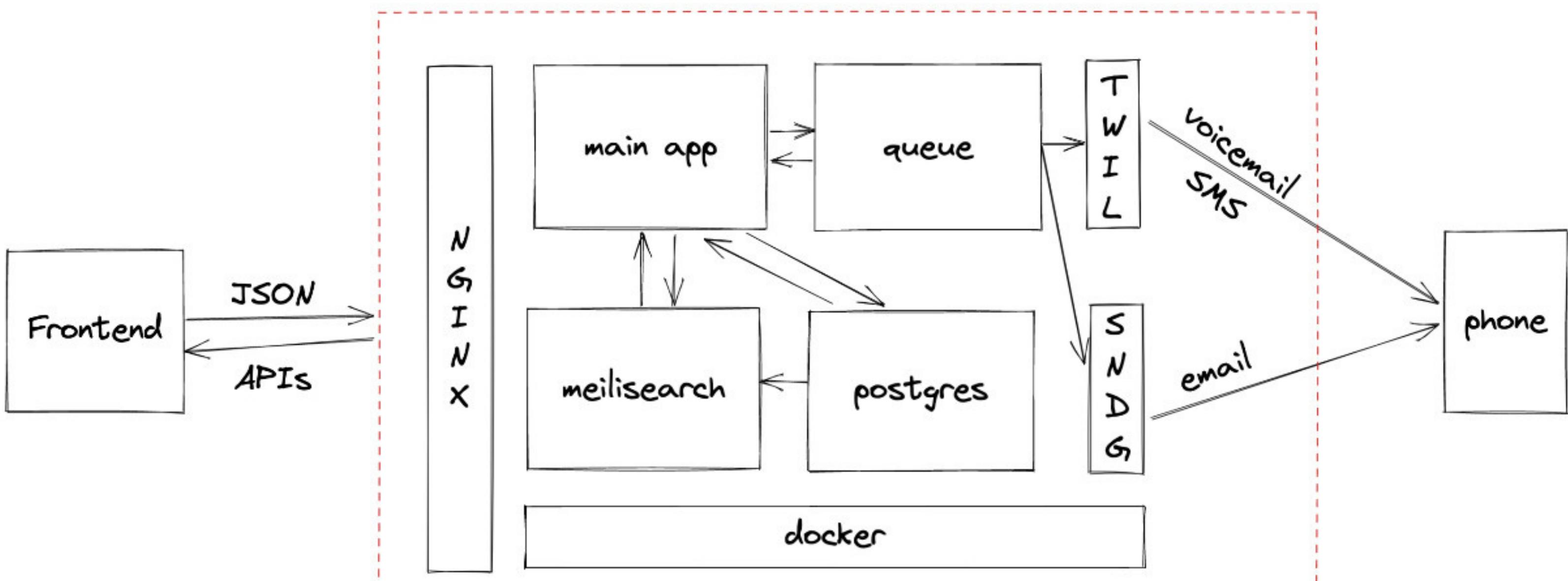




# USE CASES

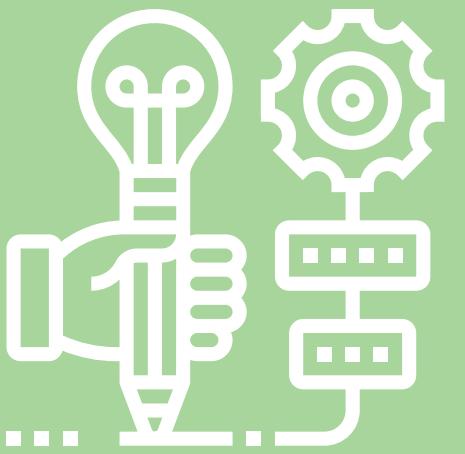
- Communicate information to the NSS volunteers and NCC cadets, and other volunteers from other organizations efficiently.
- Provide all necessary information at the click of a button.
- Raise funds for the disaster relief.
- Maintain active participation of volunteers.
- Encourage and inform of events conducted by various institutions.

# ARCHITECTURE FLOW

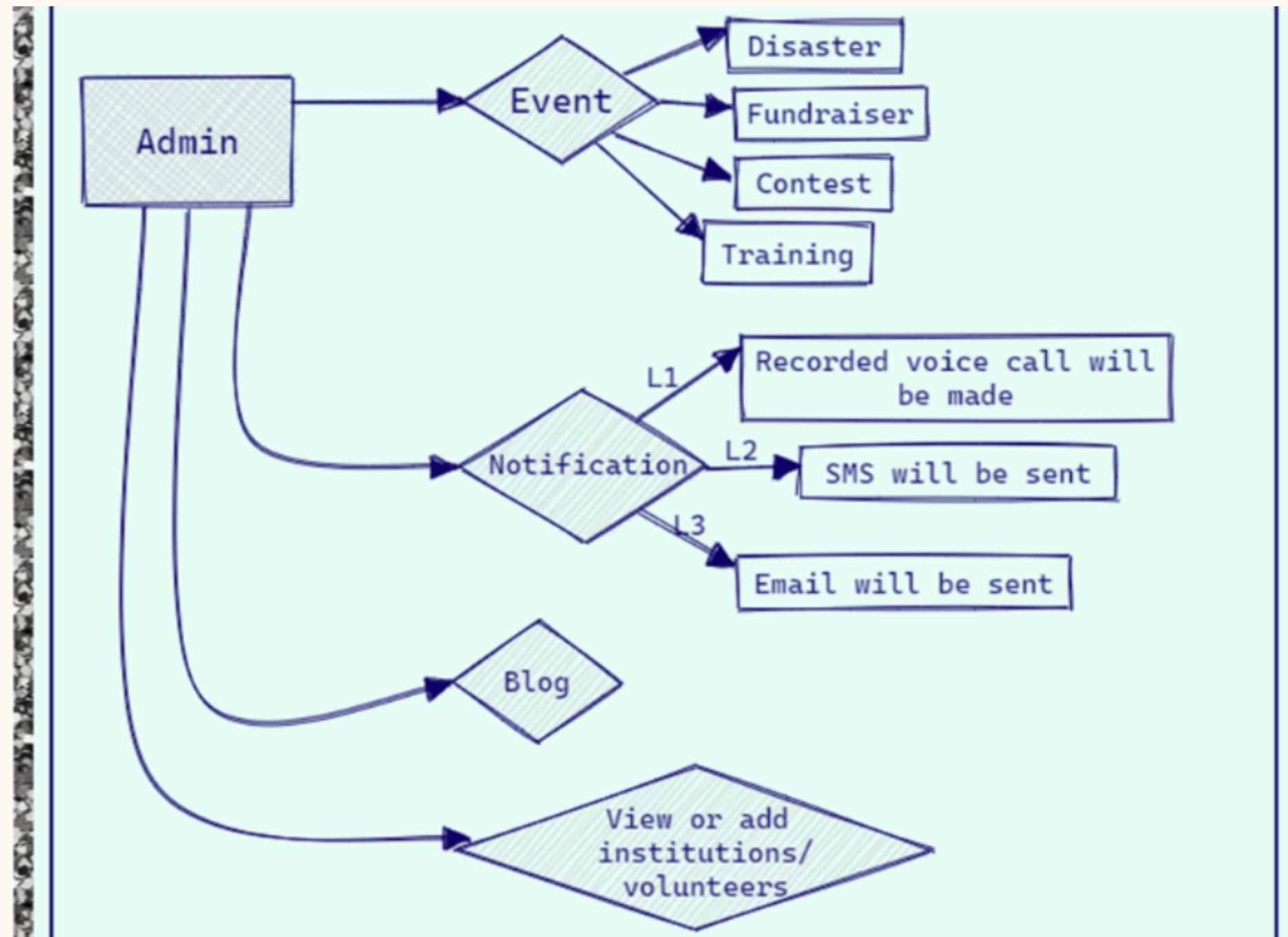


SNDS = Sendgrid

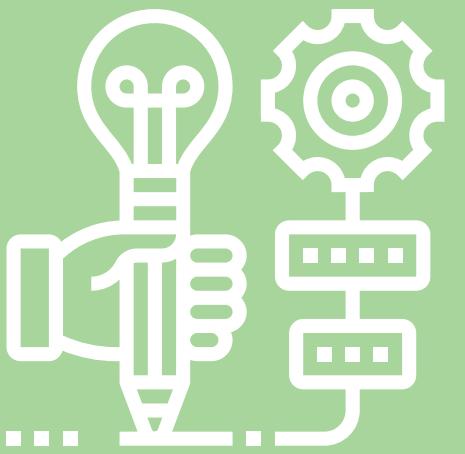
TWIL = Twilio



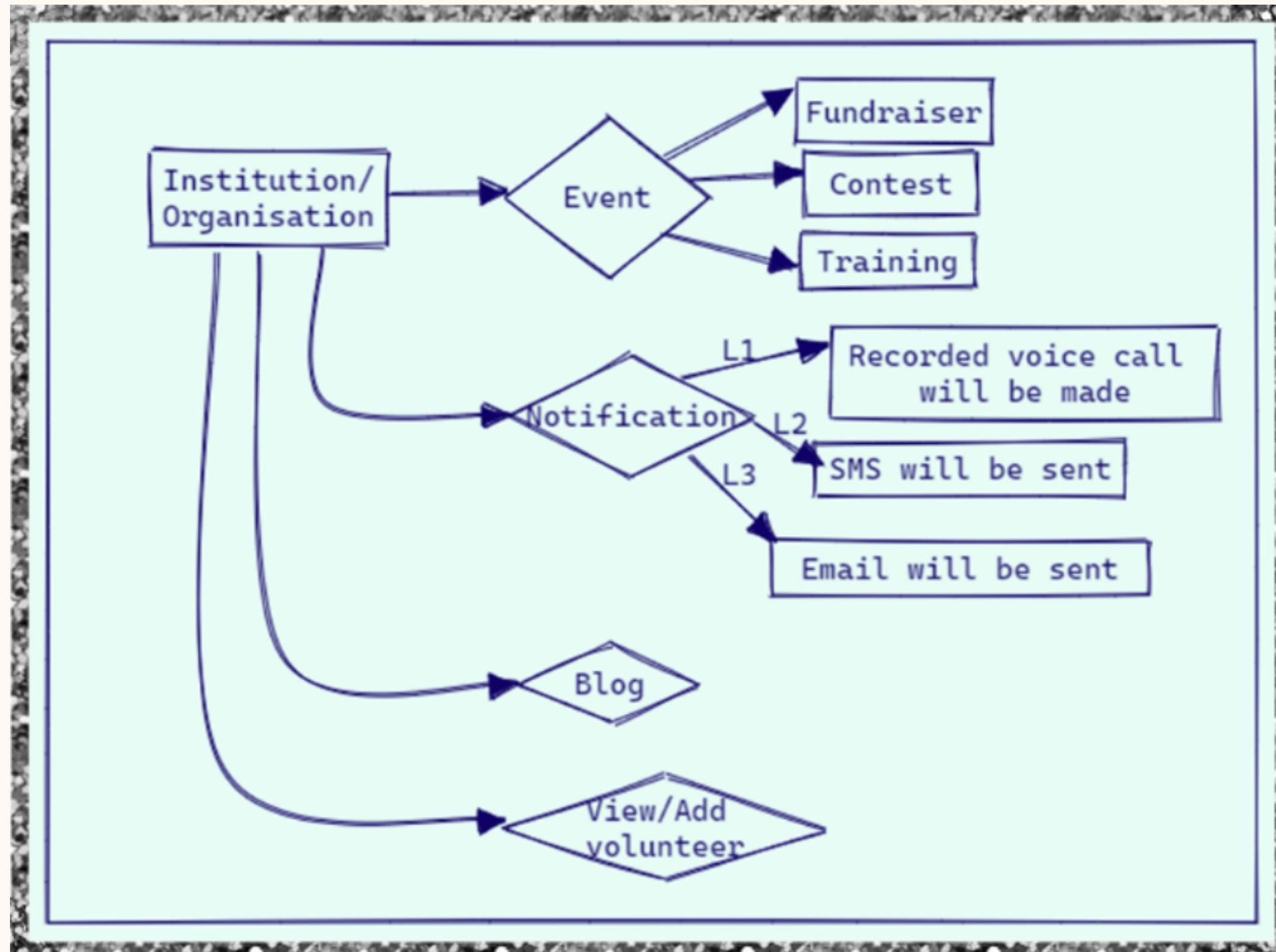
# USERFLOW



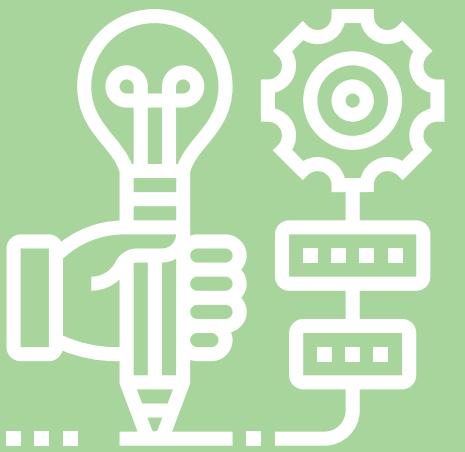
ADMIN USER FLOW



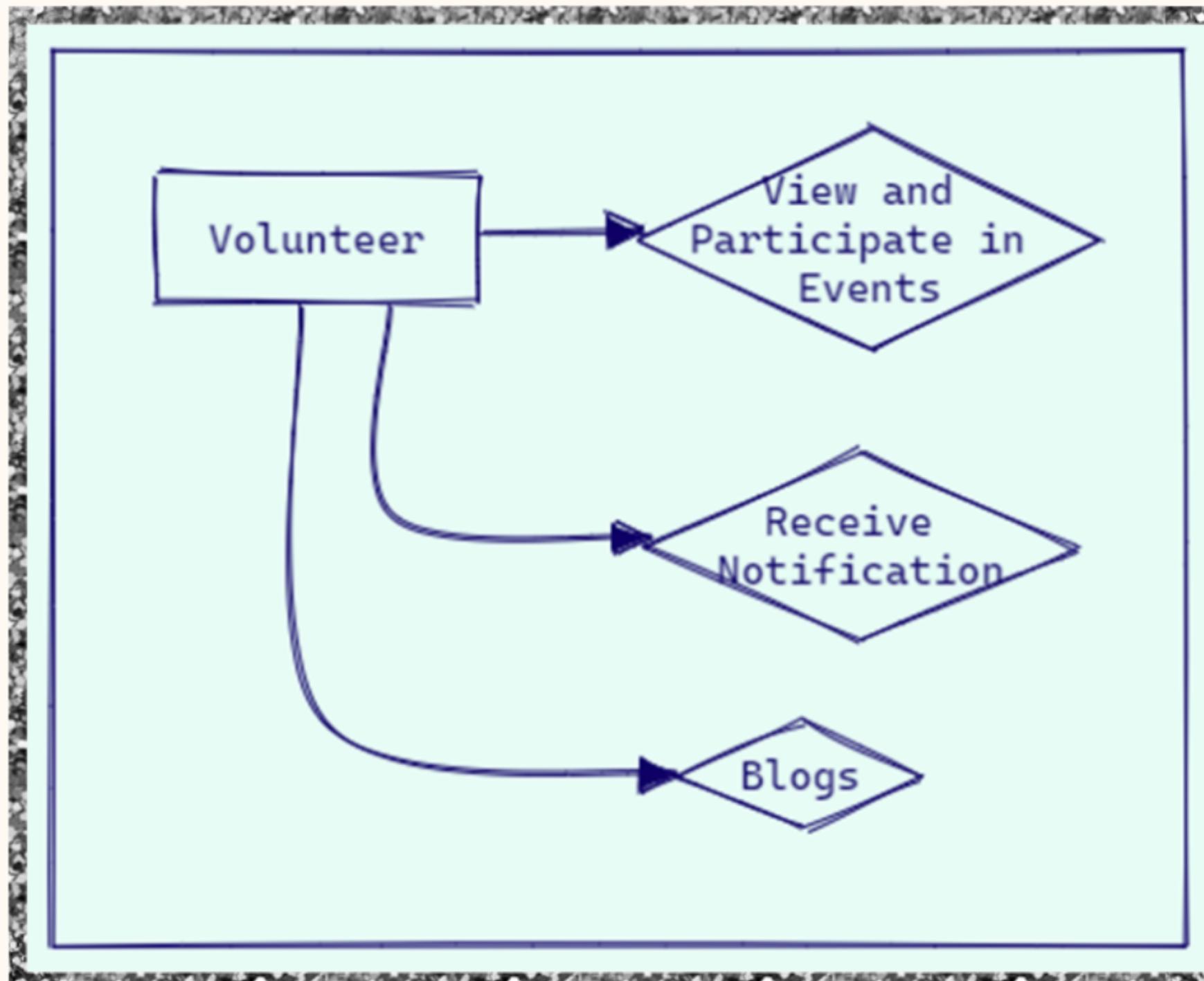
# USERFLOW



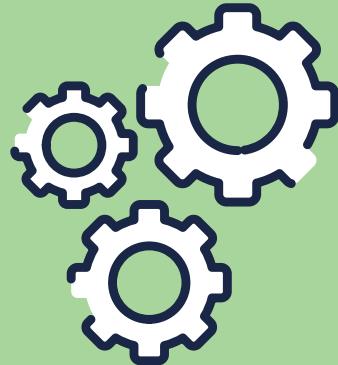
INSTITUTION/ORGANISATION USER FLOW



# USERFLOW



VOLUNTEER USER FLOW



# TECHNICAL STACK

1

Built using modern technologies

2

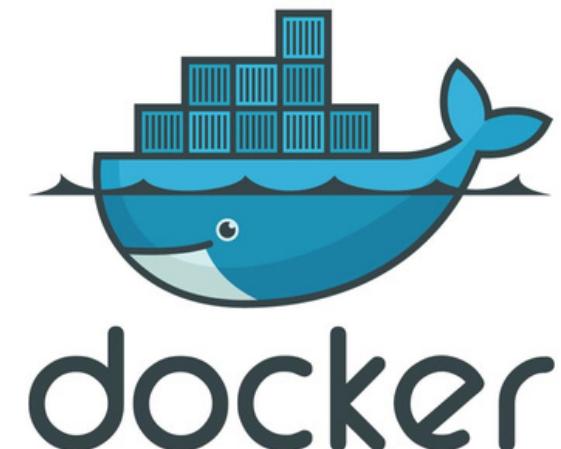
Will be highly reliable due to docker swarm

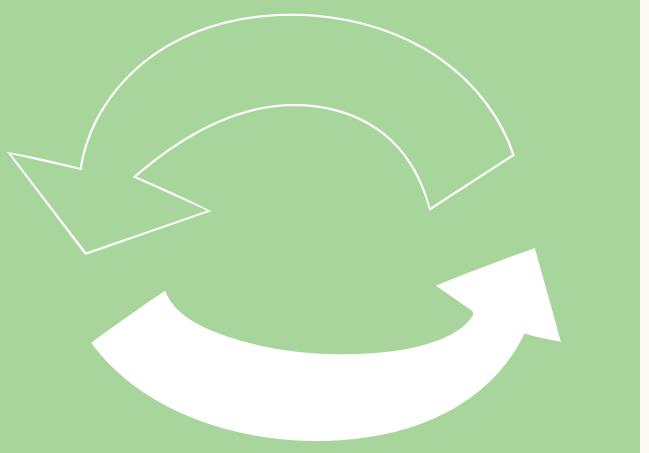
3

Uses bulma css for rapid UI development

4

Frontend will be a PWA for better user experience





# DEPENDENCIES

- 1 Twilio: It provides programmable communication tools to send and receive texts and calls.
- 2 SendGrid: Customer communication platform for transactional and marketing email.
- 3 OpenStreetMap has an editing API for fetching and saving raw geodata from/to the OpenStreetMap database





# FUTURE SCOPE

- Develop a feature to store location data of every volunteer
- Reach out to people for feedback.
- Migrate our existing documents and information on volunteers to digital format for easier verification

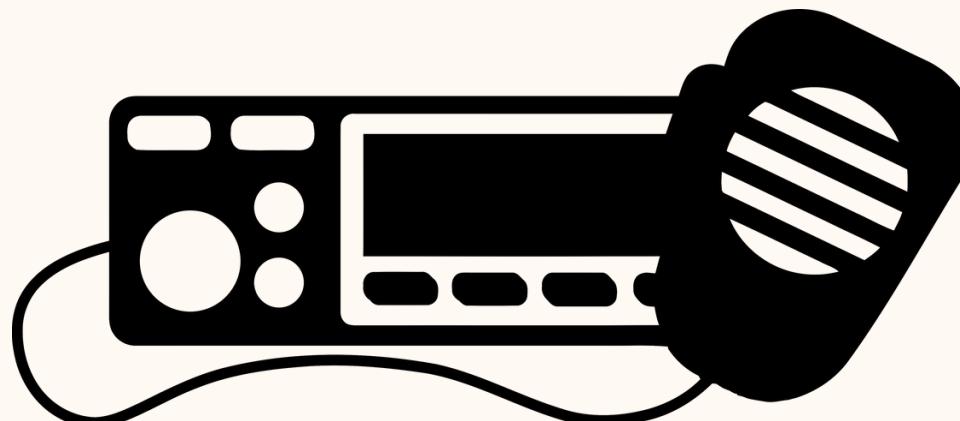
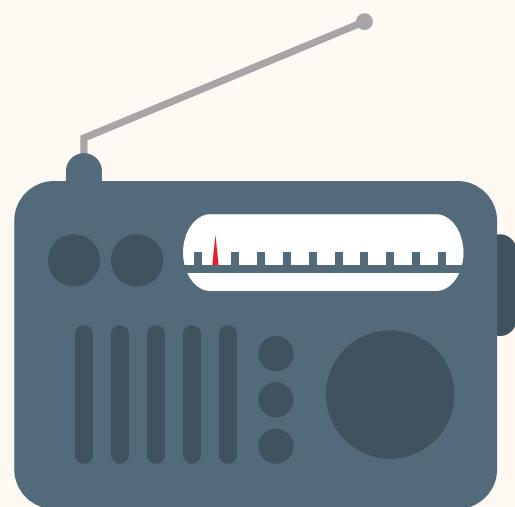




# SCENARIO

In case of a complete breakdown, we will be using the following solutions to overcome the difficulties in connecting with the volunteers:

1. Amateur Radio (HAM Radio)
2. Landline
3. FM Radio





# MARKET PLAN

- Lives are priceless and hence we do not want to monetize our app.
- Option available for users to give a cut, while donating for a fund raiser.
- Cut is based on user's discretion.
- For example, user can pay a cut of 3% of their donated amount in addition to their donation.



# CONCLUSION

This app is the bridge between the confusion during a disaster and the clarity needed to control the effects of the same. This app aims to provide all the assistance and information at the click of a button. The aim of this app is to save lives, as lives are priceless.





# TEAM DETAILS

## TEAM LEADER:

Karan Sanjeev Nair

## TEAM MEMBERS:

1. Kiridharan S.
2. Adhavan T.
3. Vakkalagadda Drishti Rao
4. Prithiyanga

## TEAM MENTORS:

1. Dr. Prasath R.
2. Dr. Jessie A





**Thank You!**