THE ORCAS PROJECT

THE TOGETHERNESS INITIATIVE, CONNECTING AND REDEFINING HOW PEOPLE ARE SAVED

:- BY M.S.SESHASHAYANAN
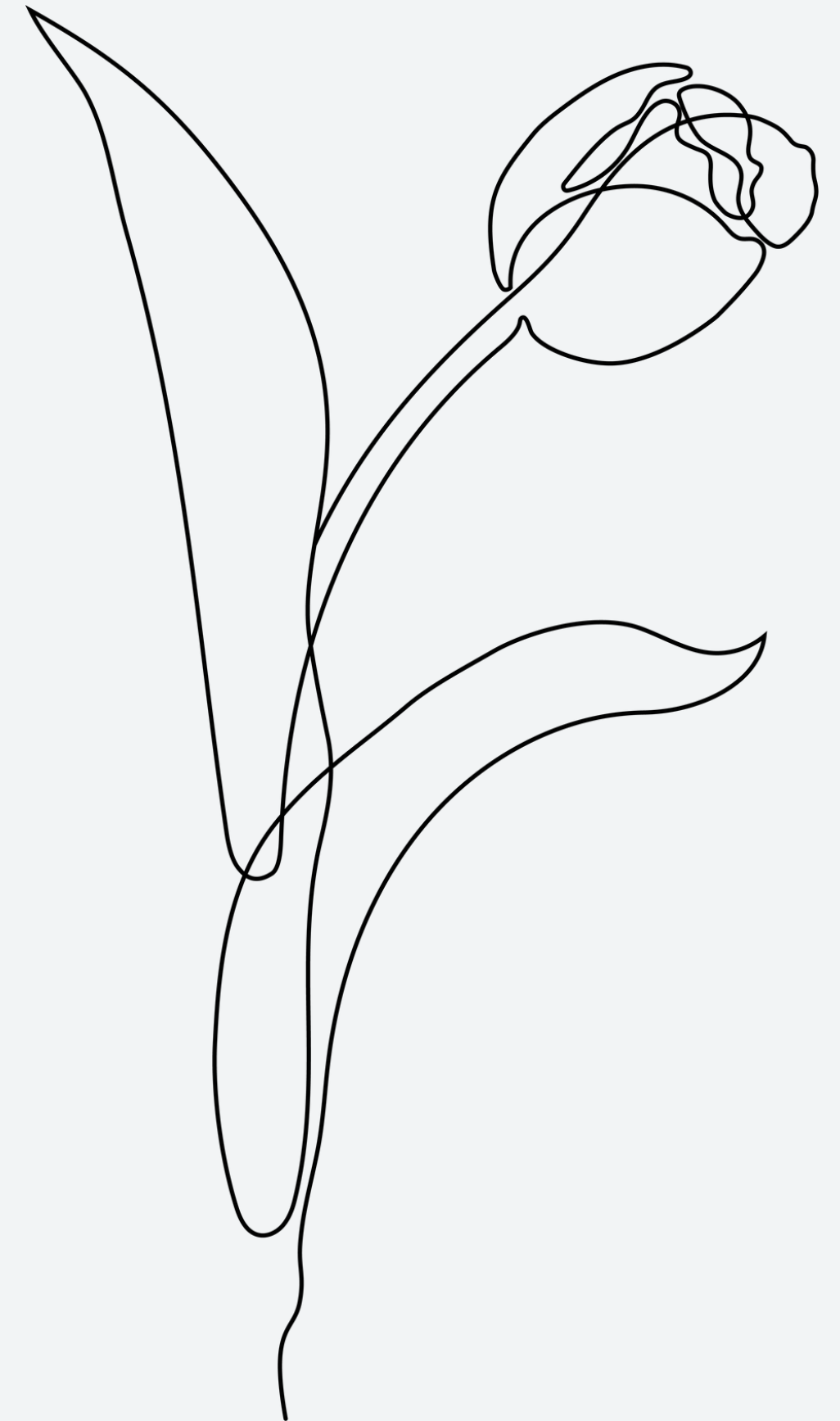
CONTENT

PROBLEMS:-

In the wake of escalating natural disasters, the efficacy of relief efforts hinges on the ability to efficiently channel resources to meet pressing needs. Despite commendable support from various quarters, the absence of a centralized coordination mechanism exacerbates challenges, often leading to mismatches between donated items and actual requirements. Complicating matters further are infrastructural deficiencies such as power outages and disrupted communication networks in affected regions.

ABSTRACT

- In the realm of disaster relief, the efficient allocation of resources poses a critical challenge, particularly in the face of escalating natural disasters exacerbated by climate change. Despite the commendable outpouring of support from various entities, the absence of a centralized coordination mechanism often results in mismatches between donated supplies and the genuine needs of affected areas. This abstract highlights the pressing need for innovative solutions to address key challenges in disaster relief, including balancing supply-demand dynamics, optimizing resource allocation, validating requirements, broadcasting urgent needs effectively, expediting delivery, and maintaining real-time monitoring of evolving needs. Such solutions are vital for enhancing resilience and ensuring the timely and targeted delivery of aid to disaster-stricken communities.

GOALS AND OBJECTIVES

OBJECTIVE 1

CONNECTING THE ORGANISATION RESPONSIBLE FOR DISASTER MANAGEMENT AT VARIOUS LEVEL (WHICH INCLUDES NATIONAL AND STATE DISASTER MANAGEMENT)

OBJECTIVE 2

CREATING A RESILIENT AND DECENTRALISED NETWORK FOR ORGANISATIONS AND GOVERNMENT TO WORK EFFECTIVELY AT SCALE

OBJECTIVE 3

MATCHING AND SOLVING SUPPY-DEMAND ISSUE FROM THE GOVERNMENT AND ENSURING TIMELY FULFILLMENT OF THE RESOURCES TO MINIMISE THE DELAY

RAHUL IN ACTION

- Rahul is a typical 17-year-old Indian boy.

- Let us take a deep dive how Rahul save from an natural calamity by using THE ORCAS

SCENARIO 1:

Now, Rahul is currently stranded in a flood in Chennai.

Rahul's network is very low, so he calls a SOS emergency number for help.

An automated voice recorder assists Rahul, and asks for his needs through automation.

BACKEND 1:

Let's see how The National Disaster Management Authority helps users

The user has 5 options to connect and ask assistance to NDMA.
1. SOS Emergency Call
2. Text message
3. Whats App messages
4. Hardware device
5. Automated low frequency messages

The user response is automated through API and information such as Location, number and calamity percentage is sent

The automated data which is collected from the user goes to the central dashboard of National Disaster Management Authority, which is a Governing body throughout the Nation.

STEP 1

STEP 2

SCENARIO 2:

- An official from the National Disaster Management Authority views the response and sends it to the State Disaster Management Authority of the particular State.
- The National Disaster Management Authority splits the work between different authority to assist the user based on their needs.

BACKEND 2:

Connecting the organisation responsible for disaster management at various level.

The National Disaster Management Authority splits and sends works to different governing authorities based on their Locations from Backend 1.

The NDMA-directed case is stored in blockchain

The National Disaster Management Authority directed cases can be viewed in dashboard of the Govering body of particular area

STEP 3

STEP 4

SCENARIO 3: CENTRALISED BLOCKCHAIN

The National Disaster Management Authority response is stored in the centralized blockchain.

The centralized blockchain is:

- Fault tolerance
- Transparency
- Decentralisation
- Efficiency

BACKEND 3:

The responsible authority dashboard displaces:
1. Phone number
2. Location with date and time
3. Requested services
4. Area affected percentage
5. Department involved
6. Nearest authority to attend
7. Nearest and possible route
8. Remarks

Communication between the connected Authorities to assist the particular users

The respoinsible authorities for a particular case can communicate back and fourth between other authorities to send the service for the user.

STEP 5

STEP 6

SCENARIO 4:

- Since, the Department of Public Distribution which is responsible for ration and food supply gets the order on the dashboard and the department starts to pack the required ration for the user.

- In this case of insufficient ration, the Department of Public Distribution gets rations from nearby located DPD, and all of them are stored in blockchain so that all the Department of Public Distribution can view and send items to places where it is insufficient.

BACKEND 4:

The authorities dashboard of a particular governing body has information regarding:
1. Items in the shelves
2. Total number of workers
3. Items low in stock
4. Items with date of manufactured and expiration
5. Nearby same governing body information of stock
6. Outside donors

All this information is stored in blockchain and updated in real time

STEP 7

The Network is connected in a decentralized manner between the same organisation

The respoinsible authorities can view and supply items to the nearby authorities where the need of items is low.

Even the authorities can trade off workers in case of shortage.

STEP 8

SCENARIO 5:

- The Department of Public Distribution which is responsible for ration and food supply gets the order and the order is packed. Now, the package is delivered to the users by relief governing body.

- The relief governing body allots workers and some transportation to send the supply to the affected areas by using AI (Artificial Intelligence).

BACKEND 5:

AUTHORITY 1:

The each authorities involved can view each other work in a decentralized workspace.

Communication between the connected Authorities to assist the particular users

AUTHORITY 2:

After authority 1 delivers the required things to the authority 2.

Authority 2 comes into action

STEP 9

STEP 10

SCENARIO 6:

- Here the Department of food and Public Distribution sends the required ration to the relief governing body.

- The relief governing body sends the officials to the located person area and delivers it based on the calamity conditions.

SCENARIO 7:

RAHUL IS SAFE NOW

GIST

01

USER

THE USER CALLS AND ASSISTS FOR HELP THROUGH
1. SOS CALLS
2. MESSAGE
3. HARDWARE DEVICE
4. WHATSAPP MESSAGE

02

DASHBOARD

ALL THE USERS RESPONSE IS AUTOMATED WITH THE HELP OF API

03

BLOCKCHAIN

THE WORK DIVIDED IS STORED IN THE BLOCKCHAIN

04

AUTHORITES

THE DIFFERENT AUTHORITES COMES INTO ACTION TO SAVE THE USER

THANK YOU FROM
THE ORCAS