SMART INDIA HACKATHON 2022

# Project Details

## Basic Details of the Team and Problem Statement

Organization Name : National Disaster Response Force (NDRF)
PS Code: GS910
Problem Statement Title: Using Innovative Blockchain Technologies in Emergency Management and Disaster Response.
Team Name: Trojan Hex New
Team Leader Name: Ajit Raghunath Dakre
Institute Code (AISHE) : C-33885
Institute Name: Vasantdada Patil Pratisthan’s College Of Engineering & Visual Arts
Domain Bucket : Disaster Management

# Problem Description

- We are making a blockchain system for the disaster-hit areas where there is a scope of mishappening on the side of NGOs, Govt, or Supervisors
- By this, we are trying to make everything available to the public so that there is transparency
- To solve this problem we have created a smart contract that cannot be altered by anyone as per the predefined rules.
- The smart contract and its public ledger will be available to anyone all over the world, and anyone over the internet can verify the smart contract for any vulnerabilities.
- This will reduce the corruption or mismanagement done by govt or NGOs during any natural disaster or calamities.

# Idea/Approach Details

## TECHNOLOGIES USED:

- Front-end
  - ReactJS
  - Tailwindcss
  - Web3.JS
- Blockchain
- Smart Contract
  - Solidity
  - Ethereum / BNB Testnet

## Dependencies:

- Blockchain net for executing contracts.
- CDN server for delivering website files.
- Authorized blockchain wallet required to authenticate user access.

## Stopper:

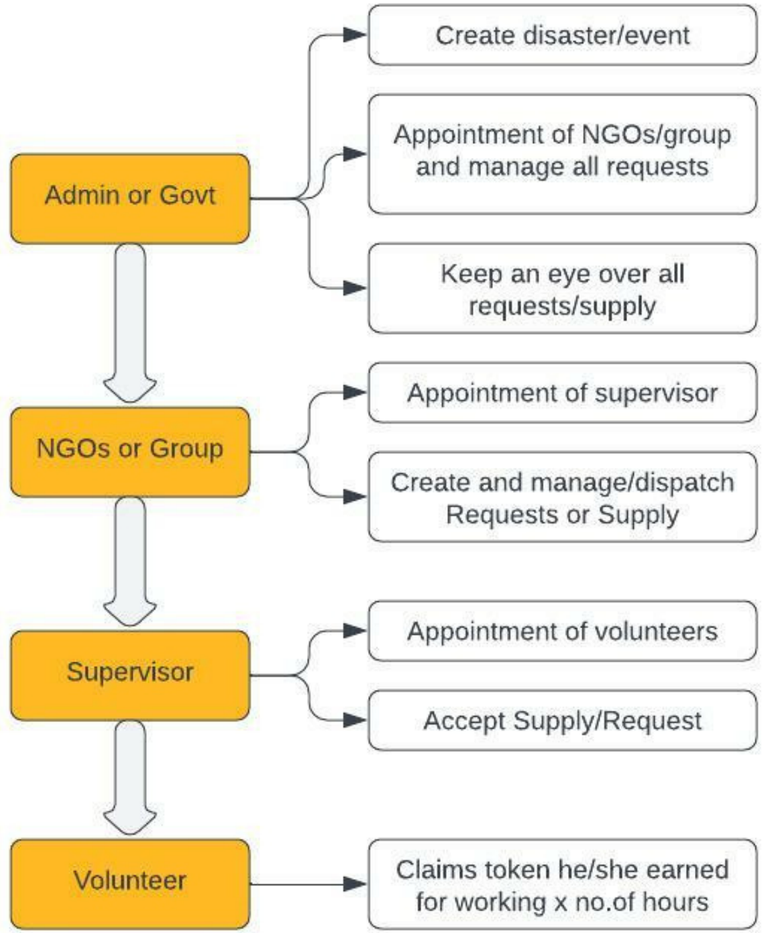
- Certain user/authority interactions at levels are required to run the application efficiently.
- Losing user's access credentials, which are required to access the application.

## Use Case:

- Government/NGOs will be able to reduce redundancy by using smart contracts.
- Government/NGOs will be able to provide aid to the disaster-prone region locals and at the same time can track the entire process.
- By tracking the entire process at every single level, government decreases the chances of bad practices.
- Any third party can verify this.
- Volunteers can claim rewards for his work.

# Navigation & Conclusion

- ADMIN: Create disaster events and manage the process and information.
- NGO/GROUPS: Create a supervisor, also create supply and manage supervisors.
- Supervisors: Create volunteer/group members, also accept supplies from NGO/Group and maintain volunteers/members' volunteer hours
- Volunteer: Redeem rewards for volunteering.
- Features (To be implemented):
  - Levels of the severity of disaster/events.




## Conclusion:

By covering all aspects and capabilities of blockchain, a high level of security and third-party verification is achieved. With help of Solidity, we create a smart contract to efficiently secure the process, thus creating a highly secure system to manage disasters/any such event.

**Wallet Private key :**
89815f24e96cdac88383129509f41ffae50090c83484ce79f74f2a36fb750469
**Hosted Prototype:** https://trojan-hex-new.netlify.app/

# Team Members

| Name | Branch | Stream | Year |
|---|---|---|---|
| Ajit Raghunath Dakre | B.E | Comps | 3rd |
| Ashutosh Yadav | B.E | IT | 3rd |
| Darshana Ranjay Patil | B.E | Comps | 3rd |
| Gauri Sanjay Patil | B.E | IT | 3rd |
| Rushikesh Jadhav | B.E | Comps | 3rd |
| Tejas Sandeep Warambhe | B.E | Comps | 3rd |