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SOEN 6841 – Software Project Management

Project Initiation and Market Analysis

Group 20

Localized Disaster Volunteer Coordination Platform

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Problem Identification Report

Project Charter:

The Localized Disaster Volunteer Coordination Platform is designed to improve the efficiency of volunteer management during disaster situations by providing a structured, real-time coordination system. This platform will enable authorities and relief organizations to assign volunteers to critical tasks based on skills, location, and availability, ensuring a faster and more organized response. By automating volunteer allocation and providing a centralized communication hub, the system aims to reduce response time, eliminate confusion, and maximize the impact of volunteer efforts in emergency situations.

Currently, volunteer coordination relies on manual processes such as phone calls, spreadsheets, and social media announcements, leading to miscommunication, delayed deployment, and inefficient resource utilization. The proposed platform will address these issues by streamlining disaster response through automated task assignments, real-time geolocation tracking, and data-driven resource management. With this system in place, authorities and NGOs can efficiently oversee volunteer efforts, optimize resource distribution, and ensure that critical needs are met swiftly and effectively.

Project Scope:

Problem/Opportunity Statement:

In the aftermath of a disaster, many volunteers will run into volunteer, but with no coordination, efforts become disorganized and inefficient. Most volunteers don't have any information about where their contribution will have the greatest impact, and thus, the distribution of aid turns out to become unequal, with oversupply in one part and undersupply in another part. With no coordination in real-time between groups of relief, efforts become repetitive, resources become inefficient, and delivery of aid takes a long, inflicting unnecessary sufferings and defeating efforts at rehabilitation.

This project will stand a chance to maximize volunteer coordination through an online platform that simplifies work assignment, enables effective communication, and allows real-time tracking of work in progress. With automation and analysis of information, volunteers can then be scheduled to work in terms of skill, location, and level of urgency, offering a balanced and effective response. With such a platform, relief groups, government, and community leaders will have an empowered platform for decision-making, with increased efficiency and effectiveness in disaster response operations.
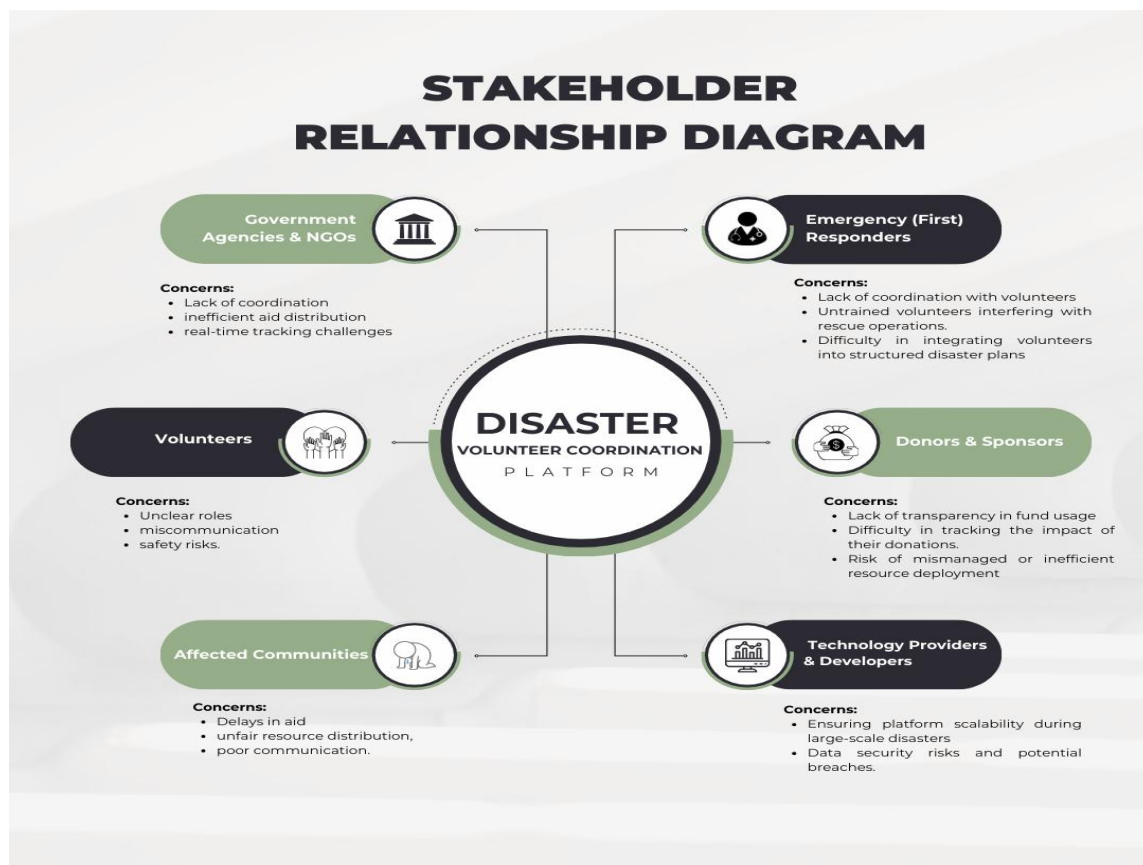
Significance:

Disasters create immediate and widespread humanitarian crises, necessitating rapid and coordinated response operations. An effective volunteer management system is important in curbing disarray and enhancing the efficiency of relief operations. With a centrally coordinated electronic platform, disaster response groups can mobilize volunteers in a timely manner, cutting down response times and delivering aid to beneficiaries in a timely manner with no unnecessary delays and repetitions.

Moreover, a systemic volunteer management system will benefit all involved, including government, NGOs, community groups, and volunteers, through transparency, accountability, and expandability during times of disaster relief. Optimum use of assets, minimizing operational inefficiencies, and a supportive environment for collaboration will be assured through the platform, and overall, increased preparedness and resilience for future crises will be supported.

Stakeholder Analysis:

The success of the Localized Disaster Volunteer Coordination Platform will depend on coordination between a variety of important stakeholders. All have a significant role in disaster response and have specific concerns and interests that will be addressed through the platform. An overview of the most significant stakeholders and how the platform will benefit them is discussed below.

STAKEHOLDER RELATIONSHIP DIAGRAM

Government Agencies & NGOs

Concerns:
- Lack of coordination
- inefficient aid distribution
- real-time tracking challenges

Emergency (First) Responders

Concerns:
- Lack of coordination with volunteers
- Untrained volunteers interfering with rescue operations.
- Difficulty in integrating volunteers into structured disaster plans

Volunteers

Concerns:
- Unclear roles
- miscommunication
- safety risks.

DISASTER VOLUNTEER COORDINATION PLATFORM

Donors & Sponsors

Concerns:
- Lack of transparency in fund usage
- Difficulty in tracking the impact of their donations.
- Risk of mismanaged or inefficient resource deployment

Affected Communities

Concerns:
- Delays in aid
- unfair resource distribution,
- poor communication.

Technology Providers & Developers

Concerns:
- Ensuring platform scalability during large-scale disasters
- Data security risks and potential breaches.

1.Government Agencies & NGOs:

Government agencies and NGOs are primary stakeholders responsible for managing disaster response and volunteer coordination. They require a system that improves efficiency, ensures accountability, and optimizes resource distribution.

Interests: Government and non-governmental agencies necessitate coordinated volunteer mobilization, real-time activity tracking, and data-driven decision-making to enhance response operations.

Concerns: Without a coordinated mechanism, volunteer work can go in vain, distribution of aid can become unbalanced, and coordination of actions can become an issue, leading to delays and inefficiencies.

How the Platform Helps: Empowers automated task delegation, real-time volunteer tracking dashboards, and group messaging tools, ensuring a rapid and effective disaster response.

2.Volunteers:

Volunteers are active stakeholders who work towards disaster relief but often lack proper guidance on where and how to serve. They need an organized system that ensures structured task delegation and coordination.

Interests: Volunteers request clear assignments, timely feedback, and opportunities to make a meaningful contribution in disaster relief. They also value safety protocols and recognition for their efforts.

Concerns: Many volunteers struggle to find where they are needed, lack proper guidance, and face unstructured coordination, leading to frustration and inefficiency.

How the Platform Helps: Matches volunteers to tasks based on location and skills, enables real-time notifications, and creates a structured workflow, allowing for greater impact and efficiency in volunteering.

3.Affected Communities:

Disaster-affected individuals will directly benefit from the platform, as its effectiveness in coordinating relief is crucial for their survival and recovery. Prioritizing their needs ensures fair and timely aid distribution.

Interests: Communities impacted by disasters need timely and organized relief, fair distribution of aid, and direct access to request assistance.

Concerns: Delays in aid delivery, mismanagement of resources, and unequal distribution can prolong suffering. Poor communication channels make it difficult for affected individuals to express their urgent needs.

How the Platform Helps: Ensures faster response times, equitable resource allocation, and a structured system for tracking community needs and aid distribution.

4.Emergency Responders:

First responders such as medical professionals, firefighters, and police officers need volunteers to assist with general tasks, allowing them to focus on critical medical and rescue operations

Interests: Efficient volunteer integration into disaster operations, seamless coordination with response teams, and volunteers assisting with non-specialized tasks such as aid distribution and shelter setup.

Concerns: Untrained volunteers interfering with emergency operations, lack of a structured system for volunteer assignments, and inefficient resource utilization. Poor management can hinder responders from prioritizing critical duties.

How the Platform Helps: Assigns structured tasks, ensures volunteer training and safety compliance, and facilitates coordinated volunteer participation in response efforts.

5.Donors & Sponsors:

Donors and sponsors play a vital role in funding disaster relief and require transparency in how funds and resources are managed.

Interests: Organizations and donors supporting disaster relief efforts seek transparency in fund usage, efficient allocation of resources, and measurable impact on relief operations.

Concerns: Donors often struggle to track how their funds are used, lack visibility in volunteer efforts, and worry about inefficient resource management.

How the Platform Helps: Enables real-time tracking of donations, generates impact reports on volunteer efforts and aid distribution, and ensures accountability in fund utilization, fostering trust and long-term donor engagement.

6.Technology Providers & Developers:

Technology providers and developers play a key role in maintaining a functional, secure, and scalable platform that effectively supports disaster response needs.

Interests: Ensuring a secure, scalable, and user-friendly platform with essential features such as real-time communication, geolocation tracking, and automation.

Concerns: Potential technical challenges, data security issues, and user adoption barriers that could affect the platform's performance during disaster response efforts.

How the Platform Helps: Implements strong security measures, ensures seamless scalability to handle high traffic during crises, and integrates tools designed for efficient volunteer coordination.

Relevance to Software Solution:

Explanation of How Software Development Can Solve the Problem:

The Localized Disaster Volunteer Coordination Platform enhances disaster response through an automated, real-time system that replaces traditional volunteer management with a digital platform. It integrates geotagged tracking for volunteer sign-ups, task assignments, and communication. By leveraging automation, real-time data analysis, and geolocation technology, the platform allows authorities and NGOs to assign volunteers efficiently based on their skills, availability, and proximity to affected areas, ensuring optimized manpower distribution.

Built-in messaging tools facilitate seamless coordination between volunteers, emergency responders, and impacted communities, reducing redundancy, response delays, and resource misallocation. This ensures that aid reaches the most critical areas efficiently and without unnecessary bottlenecks.

Initial Thoughts on the Scope of the Software Solution:

The software will function as both a web and mobile platform, designed for streamlined volunteer coordination. Based on disaster management needs and market research, the platform could include the following essential features:

1. Automated Volunteering & Task Assignment: AI-driven algorithms will match volunteers with tasks based on their skillsets, availability, and proximity to disaster zones, ensuring efficient deployment of human resources.

2. Real-Time Location & Resource Tracking: GPS integration will enable real-time monitoring of volunteer movements, identification of high-priority areas, and proper distribution of aid. Relief teams can assess which locations require additional assistance, preventing overcrowding and resource shortages.

3. Instant Communication & Emergency Alerts: The platform will include built-in messaging, push notifications, and automated alerts, ensuring volunteers receive timely updates, safety instructions, and disaster-related information to improve coordination and prevent confusion.

4. Role-Based Access for Stakeholders: Different access levels will be available for NGOs, government agencies, emergency responders, and volunteers, allowing each group to manage their respective tasks, monitor aid distribution, and oversee relief efforts effectively.

5. Community-Reported Needs & Assistance Requests: Disaster-affected individuals will have a feature to submit urgent aid requests, helping volunteers and emergency responders prioritize their efforts based on real-time data from communities.

6. Integration with Existing Emergency Response Systems: The platform will seamlessly integrate with government databases, emergency alert networks, and relief distribution systems, improving interagency collaboration and response coordination.

7. Multilingual Support & Accessibility Features: To ensure inclusivity, the system will offer language localization options and voice-assisted navigation, allowing both volunteers and affected individuals to access the platform regardless of language or literacy barriers.

8. Performance Analytics & Impact Reporting: The system will generate in-depth reports on volunteer engagement, response efficiency, and impact assessments, allowing organizations and donors to measure the effectiveness of disaster relief efforts.

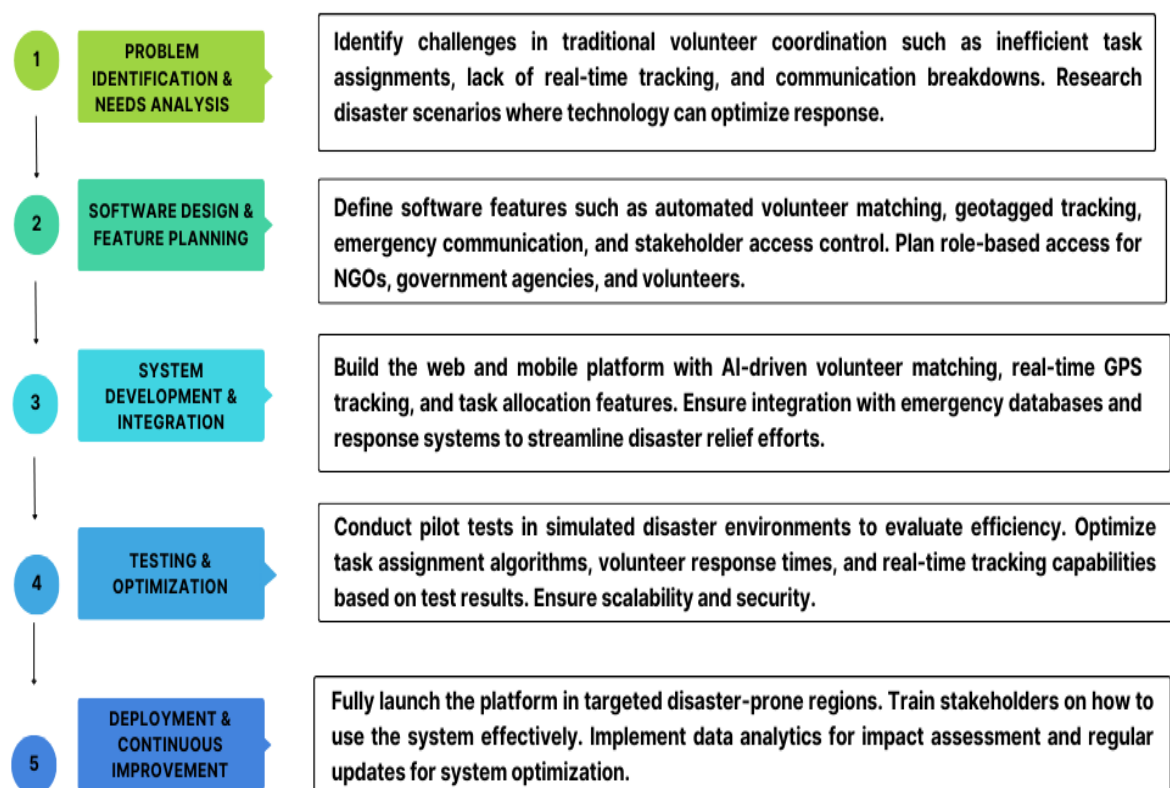**Project   Objectives:**
Explanation of how the problem or opportunity can be addressed through software development.

- ❖ **Improved Coordination:** The platform simplifies collaboration among volunteer groups, disaster response teams, NGOs, and government agencies by bringing them onto a single system. It enables real-time task assignments and updates, ensuring volunteer efforts are well-coordinated and effective.
- ❖ **Efficient Resource Allocation:** With intelligent task assignments, the system directs skilled volunteers to areas where they can have the greatest impact, reducing redundancy and ensuring that urgent tasks receive immediate attention.
- ❖ **Enhanced Communication:** The platform provides instant messaging, alerts, and notifications to keep volunteers and response teams informed about critical updates, emergency situations, and resource needs.
- ❖ **Data-Driven Decision Making:** Real-time analytics on volunteer activity, resource distribution, and affected locations help decision-makers optimize their response efforts and maximize impact.
- ❖ **Accessibility and Inclusivity:** The system is accessible via web and mobile applications, allowing volunteers to register, receive assignments, and update their status from anywhere. Multilingual support ensures communication barriers are minimized, making the platform inclusive for diverse communities.

❖ **Transparency and Accountability:** Volunteer activities, assigned tasks, and completion statuses are logged to maintain accountability. Users can track their contributions, while response teams can monitor operational efficiency and identify areas for improvement.

❖ **Automated Emergency Assistance:** In cases of unexpected events such as worsening weather conditions or sudden increases in demand, the platform generates alerts and suggests necessary adjustments in resource distribution and volunteer deployment.

Disaster Volunteer Coordination Platform

Initial Problem-Solving Approach

#	Stage	Description
1	**PROBLEM IDENTIFICATION & NEEDS ANALYSIS**	Identify challenges in traditional volunteer coordination such as inefficient task assignments, lack of real-time tracking, and communication breakdowns. Research disaster scenarios where technology can optimize response.
2	**SOFTWARE DESIGN & FEATURE PLANNING**	Define software features such as automated volunteer matching, geotagged tracking, emergency communication, and stakeholder access control. Plan role-based access for NGOs, government agencies, and volunteers.
3	**SYSTEM DEVELOPMENT & INTEGRATION**	Build the web and mobile platform with AI-driven volunteer matching, real-time GPS tracking, and task allocation features. Ensure integration with emergency databases and response systems to streamline disaster relief efforts.
4	**TESTING & OPTIMIZATION**	Conduct pilot tests in simulated disaster environments to evaluate efficiency. Optimize task assignment algorithms, volunteer response times, and real-time tracking capabilities based on test results. Ensure scalability and security.
5	**DEPLOYMENT & CONTINUOUS IMPROVEMENT**	Fully launch the platform in targeted disaster-prone regions. Train stakeholders on how to use the system effectively. Implement data analytics for impact assessment and regular updates for system optimization.

Market Analysis Report:

Objective: To perform a thorough market analysis on implementing a localized disaster volunteer coordination system to understand the target audience, potential users, and competitors in the chosen domain.

Content:

Target Audience Identification:

The coordination system primarily focuses on creating a bridge between the people who volunteer themselves to help and the people who need help. To be more specific the system looks for volunteers who can help the disaster victims. The volunteer coordination system mainly focuses on identifying the volunteers who stay very close to the disaster-prone area and who are immediately available with right skills to save people from the disaster. It also includes other target audiences such as local businesses and service providers, philanthropists, educator, and trainers who can train skills for the volunteers who are interested in volunteering at disaster prone areas.

Considering stakeholders and investors, more detailed information about target audience can be defined as follows:

1. Volunteers/ Helpers

Volunteers or helpers are the main target audience of the platform. They are the one who drive the process where in they participate actively in looking for any disasters occurred locally that needs to be addressed. Volunteers should showcase certain skills which helps the platform in identifying them based on skills that are required to tackle disaster type such as fire, hurricanes or cyclone and other disasters. Some of the characteristics of volunteers are:

Demographic characteristics:

a.   **Age:** It is important to identify the volunteer age to select the right range of age for the tasks that might require heavy muscle work. System suggests volunteers below 18 or above 50 might face difficulties in such volunteering and can be assigned a less effort and more effective volunteering works.

b. **Physical attributes:** the volunteer system requires volunteers information about physical attributes help in picking the right candidates for the disaster volunteering to help the victims by moving them to safe places.

c. **Geographic Location:** Since the localized volunteer coordination system focuses on the location specific volunteer identification, it is important to know the location of the volunteers to contact the nearest volunteers who are very close to the disaster site.

d. **Skills:** Volunteers should showcase their skills on the profile as a volunteer with experience which makes it easy to identify the right volunteer for the volunteering activities at the disaster site.

e.   **Language:** Volunteers should mention their language which helps in adding them to the groups that have common language for communication so that they can have smooth conversation and help each other during the volunteering.

Psychographic characteristics:

a. **Interest towards teamwork:** Volunteer should have the characteristic of a team player and should be ready to work as a team and keep coordination with the team members by doing work and parallelly helping other team members.
b. **Interest towards learning:** Volunteers should show eagerness to learn as the disasters are highly unpredictable and always pose a new situation and problem that needs to be eliminated. Volunteers should keep updating themselves for newer challenges and share their knowledge with other team members to gain knowledge on the volunteering work.
c. **Motivation to help:** Volunteers to have a self-motivated goal and aspiration to help the victims of the disaster. Volunteers should work for the humanity as the main soul purpose of the work and help victims to over come the disaster to build a new life.
d. **Personality:** This defines the person on his/her social health in the community. A person who is active in his/her social life and always looks forward to help people in need and have a kind vision for the harmony can be a volunteer.

2. Local NGOs

Local Non-Government Organisations play key role in this system where they identify the disaster struck areas in the local and call for help from the volunteers. They should maintain proper coordination amongst the volunteers and provide them with necessary information all the time during the volunteering process and look after their safety who are part of the volunteering process. Some of the characteristics of NGOs are:

Demographic characteristics:

a. **Geographic Location:** Nongovernment organisation should have an office or a unit near to the disaster-prone area which needs to be recorded in the system for identification. In other words, the system should be effective enough to identify the nearest available NGO and provide the information about the disaster.
b. **Communication:** NGOs should be able to understand the severity and type of the disaster and respond by requesting the right set of volunteers who are ready to contribute with right skills.

Psychographic characteristics:

a. **Motivation to help** NGOs should have strong motivation and determination to help the society and victims who need help. Here the system majorly focuses on identifying the NGOs that has goal to help victims of disaster.

3. Educators and Trainers

Educator and trainers are the one who have experience in volunteering activities and know the right skills used in the process of volunteering in disaster recovery. Volunteers or people who like to contribute and help victims but do not have the right skills and want to learn them can take advantage where they can use the system to learn skills and contribute their kindness by becoming a volunteer and help the disaster victims. Key characteristics of educators and trainers are:

Demographic characteristics:

a. **Geographic location:** The system can find the near by educators and volunteers with skills who wish to train young volunteers.
b. **Language:** The volunteer system is multilingual which makes it easy for anyone to learn and gain skills irrespective of language barrier.
c. **Skills:** Educators and volunteers have to update their skills and willingness to teach the skills.

Psychographic characteristics:

a. **Motivation:** Educators should be motivated through the system who desire to train volunteers and help them for the volunteering activities.
b. **Attitude towards learning:** Educators should show their interest in teaching and skill up the volunteers through the system.

4. Government and local Authorities

Government and local authorities should drive the system there by incentivising the volunteers by providing them with necessary aids such as insurances and benefits to attract more volunteers and help them to skill up to be ready to volunteer whenever a disaster situation occurs. Some of the key characteristics of government and local authorities are:

Demographic characteristics:

a. **Geographic Location:** The system should hold the geographic information system to easily locate the disaster areas and provide the necessary information to government and other agencies to provide resources and help.
b. **Communication:** The system should have systematic data about the disaster and the activities undertaken to resolve that should be available for the government to check.

Psychographic characteristics:

a. **Motivation:** The government should initiate campaigns through the system by training the volunteers and providing necessary actions.

5. Disaster Victims

Disaster victims are the one who are the subject of the system. They need to get all the help they need when they are part of the disaster. Although some of the victims who can take care of themselves and can join the volunteer groups and volunteer themselves in saving people from the disaster can be considered as volunteers and can be applied all the characteristics as the volunteer mentioned above.

Competitor Analysis:

During the market analysis and research on the building the localised disaster volunteer coordination system, the team was able to identify a few organisations that have very similar systems built out of which a few specifically looks after disaster volunteering system. Although they lack a few functionalities and a few having a deviated deliverables which are analysed below with the SWOT analysis on a few od the potential competitors. Some of the key competitors of the system are *ReDI by Galaxy Digital, Crisis Track, Vision link, Zelos*, etc.

1. ReDI by Galaxy Digital:

ReDI by Galaxy digital is a disaster volunteer management system designed to assist organisations during the process of volunteering at the disaster site. This system helps in end-to-end collaboration from identifying the volunteers and coordinating them till the end of the volunteering process that includes excavating the victims and moving them to safe places to providing them shelter and necessary materials to survive. SWOT analysis on this system provides the following data.

a. Strengths:

- **Disaster Response System:** The system mainly focuses on gathering and mobilizing volunteers for disaster response. Provides end-to-end solution for disaster management.
- **User Friendly Interface:** Has a easy interface to guide the usage of the system but has a long process to enroll.

b. Weakness:

- **Limited AI and analytics:** The system has very less exposure to usage of AI and analytics which makes it hard to identify the right set of action for the disaster based on previous disaster actions undertaken.
- **No learning initiatives:** This system only focuses on gathering volunteers for disaster management but does not give interest on training and upskilling the volunteers.

c. Opportunities:

- **Integrating AI:** This system can expand its volunteer management system by integrating AI which makes platform enhances the process of volunteer coordination.

- **Enhancing cross platform availability:** By introducing the system available on smart phones and other devices, the system can be widely used and can help victims in large volume.

d. Threats:

- **Cybersecurity risks:** Introducing the system to cross platform availability can cause potential cyber attacks and risks that needs to be handled to safeguard volunteers' data.
- **Market saturation:** Since the system is non profitable initiative for the social cause, and other competitor's organisation should maintain strategy to keep the interest of volunteers' contribution.

2. Crisis Track:

Crisis Track is a disaster management software that is built to facilitate government and local bodies to identify the disaster and the damage caused. It helps in damage assessment reducing the paper works and gives real time resource management. SWOT analysis on the software provides the following information.

a. Strength:

- **Real time GIS Mapping and Data Integration:** the crisis track has implemented geographic information system that helps in identifying the location.
- **Comprehensive Resource Management:** Software helps in coordinating the volunteers and provides the necessary resources used to volunteer in the disaster-prone area.

b. Weakness:

- **Limited access to AI and Analytical solutions:** Software has not incorporated usage of AI to enhance the resource and volunteers' management.
- **Lacks real time data refresh:** Software lacks real time data refresh and updates need to be explicitly added to inform the process of volunteering work.

c. Opportunities:

- **Expansion to AI and Analytical solutions:** Software has the room for improvement by adding the AI and analytics that can improve the resource management system.
- **Work on scalability:** Crisis track can use new technologies available to work on scalability, there by having covered large area and locations for disaster management.

d. Threats:

- **Cybersecurity risks:** The software has potential risk of data security where the data of the volunteers needs to be secured.
- **Adoption of new technologies:** Software must be optimized and expand the objective by adding new functionalities of volunteer coordination and management to be recognised.

3. Vision Link:

Vision link's community operating system (CommunityOS) is a platform built to support organisations in manage communities and provide disaster responses. It is a suite of integrated tools to enhance the coordination system for various operations. Performing SWOT analysis on the platform provides the following information.

a. Strengths:

- **Comprehensive disaster management system:** The platform offers wide range of resources and coordination management amongst the volunteers.
- **Multilingual support:** Has exceptional multi language responses to reach a large audience to get volunteers and to interact with victims of different ethnicity.
- **Strong API and data integration:** Has APIs that can integrate and data sharing to get insights and information.

b. Weakness:

- **High customization cost:** The platform charges for the volunteering groups to maintain the volunteers.
- **Limited AI and predictive analytics:** Platform has not integrated usage of AI to improve the management of volunteers.

c. Opportunities:

- **Decentralizing the disaster management process:** Platform can move to a decentralized management system by incorporating the concept of blockchain and other decentralized concepts.
- **Use of cloud-based technology to provide better services:** using cloud services can expand the services and can incorporate new features.

d. Threats:

- **Make strategy to maintain the external funds:** Due to many competitors the volunteers' management system should update based on business dynamics to maintain the external funds.
- **Regulatory and compliance challenges:** Due to expansion and integration of government and other agencies it should be able to get over the compliance challenges.

4. **Zelos:**

Zelos is yet another volunteer management system capable of streamlining the coordination of teams which can be used for disaster management although which is a common platform for volunteer management on any task that needs like minded people work.

   a. **Strength:**

   - **Quick deployment and easy onboarding**: This system is more intended to create a community and deploy on a particular work which can be used for disaster volunteering.
   - **User friendly interface:** Has simple interface design and easy to use the system.

   b. **Weakness:**

   - **Limited features for free plan:** Since the system is built for a small operation it has few functionalities. This only focuses on group formation of like-minded people.
   - **Not advisable for heavy emergency logistics:** It has less access to manage the resources and no interaction with government and other agencies makes it difficult to manage the volunteers with necessary resources.
   - **Basic Reporting and Analytics:** This shows only the basic progress of the work being carried out and does not explicitly show the phases of work done.

   c. **Opportunities:**

   - **Integration of AI and Analytics:** Using AI and Analytics can improve the quality of the system by enhancing the real time reporting and improving the volunteers' coordination through AI.
   - **Can build stronger partnership with government and agencies:** Can focus on expanding the system by integrating with government compliances and manage resources required for volunteers.

   d. **Threats:**

   - **Potential competitors:** Competitors with similar functionalities makes it harder to survive with limited functionality.
   - **Regulations and compliance challenges:** To expand services by allowing government and other agencies to access needs compliance challenges to sort.

Business values:

From the above competitor analysis, we were able to draw the intense and the widespread market of volunteer coordination system. Different system has different functionalities with some common features shared, but there are few gaps which makes it possible for the new product to achieve those features and compete with other competitors. Our proposed

localised disaster volunteer coordination system can answer the gaps in the market in this domain.

Unique Selling Points:

1. **Integrated training and learning platform to learn volunteer skills.**

    Volunteering is not all about helping others in need of help. Volunteering is a need of humanity. It should be thought to newer generation and people who want to help but do not have right skill. This feature lacks in most of the above competitors' software. Along with volunteer coordination system, it should also have an option for the volunteers to upskill themselves in terms of volunteering activities and train themselves with skills that help them to volunteer themselves in disaster prone areas and improve their skills to help people with better techniques. Also, volunteers with experience can teach other young volunteers with their experience and skills that help young people in their volunteer works.

2. **Multilingual Support**

    The localised volunteer coordination system should be able to meet the needs of all people irrespective of their ethnicity, language, and region. Hence one of the core parts of the system is multilingual support, where in the volunteers and the victims can use the application without any language barrier and can get benefits from it. Volunteers can interact with the team with any language of comfort and participate in the volunteering activities with the help of the volunteer coordination system.

3. **Secured Donation Management**

    Since the localized disaster volunteer coordination system is a non-profit system built for the social benefit, it cannot be commercialized like a social platform. Although there can be a small registration and maintenance fee but major sort of financial transactions are through donations. So, to keep the record of donations made and use them wisely there should be a donation tracking system that has to handle the donations and keep the transaction data secure. This is another core feature that needs to be developed.

4. **AI and Analytics with GIS**

    One of the key concepts most of the above competitors have weakness and opportunity at the same time is integrating the concept of AI. Artificial intelligence can be a player in this sector and the organisation that incorporates it to its platform can drive the platform and handle complex volunteer tasks easily. AI and geographic information system (GIS) are important to accurately identify the location and type of disaster and alert the volunteers with the right skills near the disaster to take part in the volunteering work and help the victims.

Value Proposition:

From the above detailed analysis of the topic with the functionality, understanding the potential competitors and their products which are later analysed using SWOT approach to identifying the key features and the features that are not implemented or the ones that is not rightly used in the system, we come up with a platform that improvises the previous features and also add new features which makes the system compete with the other competitors in the market.

The proposed Local disaster volunteer coordination system majorly focuses on helping the victims of the disaster by the platform where volunteers who would like to help and contribute in volunteering activities can join the platform and add their skills and preferences that helps in forming groups with right skills required to volunteer to help disaster victims. Also, the multilingual support makes it easy to reach a wide range of locations and help all who are in need. Also, the platform makes it easy for philanthropists to donate and become a volunteer who are unable to serve the people but can help in a way by donating and helping the volunteers through resources. The entire process should be tracked in the platform for a transparent process.

Further, the system should have simple and easy to use interface for the users to easily get the information and get notified of the volunteer work. Plus, as discussed it should hold a learning platform that can train volunteers with new skills that help them in volunteering themselves and taking precautions during the volunteering to safeguard themselves as well. Thus, the platform having real time analytics, volunteering profiles and notifications of the requirements and managing the resources along with the learning platform makes the volunteer coordination system unique.