DBMS Project

Group Members Details

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Project Description

The GoI plans to build a database for the disaster management committee to help them provide necessary aid to victims of various disasters like earthquakes, floods,famines etc., and manage the donations. The disaster committee identifies the type of disaster and then takes the necessary precautions for the safety of the victims in the affected area. The relief centres provide the necessary help to the victims like shelter, food, meds and clothes.
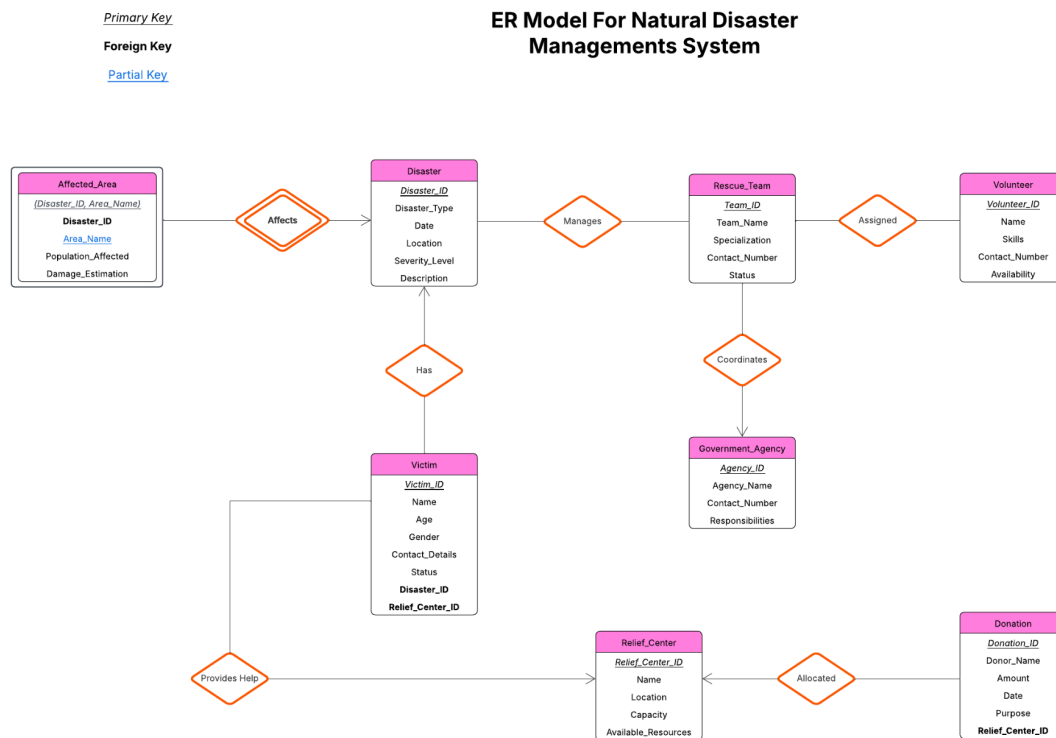
The disaster committee collects donations from various donors and then distributes them to the victims in the affected areas and use the donated money to carry out the rescue efforts. The database system keeps track of all the necessary information regarding the victims like their details, status and relief center that is currently sheltering/helping them and helps coordinate all the rescue operations and information regarding everyone involved in them.The donor may choose for which relief center/disaster rescue efforts they want to donate and the amount of money they want to donate. The donors can also donate in other forms like clothes, food and other important supplies.

A volunteer can login onto the database by giving their name, contact number and their skills/expertise area. They can also decide their current availability status and also have the option to choose where they want to help out. They are assigned to a rescue team for the affected area of where they will be helping out with the rescue efforts for the victims.

Overall, The Database system will be really helpful in managing natural disasters across the country, helping the victims, providing necessary aid and doing damage control in the affected areas.

ER Model Diagram

Link for the ER model diagram on Lucidchart

ER Model For Natural Disaster Managements System

Primary Key

Foreign Key

Partial Key

Affected_Area
(Disaster_ID, Area_Name)
Disaster_ID
Area_Name
Population_Affected
Damage_Estimation

Affects

Disaster
Disaster_ID
Disaster_Type
Date
Location
Severity_Level
Description

Manages

Rescue_Team
Team_ID
Team_Name
Specialization
Contact_Number
Status

Assigned

Volunteer
Volunteer_ID
Name
Skills
Contact_Number
Availability

Has

Coordinates

Government_Agency
Agency_ID
Agency_Name
Contact_Number
Responsibilities

Victim
Victim_ID
Name
Age
Gender
Contact_Details
Status
Disaster_ID
Relief_Center_ID

Provides Help

Relief_Center
Relief_Center_ID
Name
Location
Capacity
Available_Resources

Allocated

Donation
Donation_ID
Donor_Name
Amount
Date
Purpose
Relief_Center_ID

Sources/References

We used various sources to gain important knowledge which was helpful for us during the project. Some of the websites/sources that were useful to us are listed as follows-

1) ChatGPT
2) GeeksforGeeks.com
3) DBMS Google Classroom
4) Database System Concepts' by Silberschatz, Korth, and Sudarshan
5) Fundamentals of Database System, by Elmasri Ramez and Navathe Shamkant