Volunteer & Operations Management System for University District Food Bank

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Overview of the University District Food Bank and Challenges

The University District Food Bank is a non-profit organization that works to address food insecurity and provide resources to marginalized groups in the community. In order to carry out its mission to help individuals in need, the organization heavily relies on donations, strategic planning, and volunteers.

The University District Food Bank is currently facing problems in operations because of unorganized and ineffective data management procedures. This includes difficulties in monitoring volunteer information, such as availability, assigned tasks, and abilities. Additionally, manual labor is essential for monitoring data, which limits the organization's ability to concentrate on its primary goal.

In order to address these issues, a Volunteer and Operations Management System is being developed. With this database, important operation data, including volunteer profiles, event calendars, donation records, and inventory management, will be centralized. This system will enable real-time schedule updates, efficiently assign volunteers based on skills/availability, and generate comprehensive information (hours, event participation, etc). Through such operational enhancements, the food bank will be able to maximize both its impact and service to the community.

Information Needs of the University District Food Bank

The University District Food Bank requires a comprehensive database to efficiently manage volunteer operations, event planning, and gift monitoring. The system will save key information on volunteers, such as contact information, availability, and talents, to ensure that they are efficiently assigned to assignments and activities. It will also monitor event schedules and volunteer involvement to improve the organization. Furthermore, the database will keep full records of donations, including donor names, donation types, and donation dates, allowing for accurate reporting and financial planning. The system allows coordinators to assign volunteers to events based on their abilities and availability, amend schedules, and reassign volunteers as necessary. In addition, the database will produce reports detailing volunteer hours, event participation, and donation patterns, which will be useful for strategic planning. This solution will enable the food bank to streamline operations, maximize resource allocation, and better focus on its purpose to serve the community.

Main Entity List:

1. Volunteer
2. Events
3. Roles
4. Recipients
5. Distributions
6. Inventory

7. Schedules
8. Donors
9. Donations

Preliminary ER Model

Business Rules:
1. A Volunteer can participate in many Events, and each Event can have multiple Volunteers.
2. A Volunteer can have one or more Roles during their activities, and each Role can be assigned to multiple Volunteers.
3. A Volunteer must have at least one Schedule, but a Schedule links to only one Volunteer.
4. Each Event must have at least one Schedule, but each Schedule is linked to one Event.
5. Each Role must be associated with at least one Schedule, but each Schedule assigns only one Role.
6. Each Inventory item must be included in at least one Distribution, but a Distribution can include many inventory items.
7. Each Recipient can receive multiple Distributions, but each Distribution is linked to one Recipient.
8. A Donor can make multiple Donations, but each Donation is associated with only one Donor.
9. Each Donation contributes to the Inventory, but an Inventory item can be linked to a single Donation source.