



The database schema for the HUNGERSVAULT website includes tables for managing users, emails, organizations, branches, events, RSVPs, and email notifications. The schema ensures it adheres to 4th Normal Form (4NF), thus maintaining data integrity and reducing redundancies.

#### Users Table:

- Each non-key attribute (username, password, role) is fully functionally dependent on the primary key (user\_id).
- There are no transitive dependencies; all non-key attributes depend only on the primary key.
- No multi-valued dependencies: each user has a single role.

#### Emails Table:

- The email address is fully functionally dependent on the primary key (email\_id).
- The user\_id is a foreign key ensuring each email is linked to one user, adhering to 3NF by eliminating partial dependencies.
- Each email address is unique, preventing multi-valued dependencies.

#### Volunteer Organization Table:

- No multi-valued dependencies, each organization is unique with Organisation ID (only single organisation for website in this case but table created for scalability in mind)

#### Branches Table:

- No multi-valued dependencies, each branch is linked to a single organization.

#### Events Table:

- No multi-valued dependencies, each event is linked to a single branch.

#### RSVPs Table:

- No multi-valued dependencies, each RSVP entry is linked to a specific user and event.

- Also acts as a User-Events table to handle many to many relationships.

**Email Notifications Table:**

- Manages email notifications for users, ensuring no multi-valued dependencies.

**Event-Email Notifications Table:**

- Table to accommodate many-to-many relationship between events and email notifications, preventing multi-valued dependencies.