Using the shared requirements as a boundary for your design, first list the following:

1. Application Pages
   1. Profile
   2. Catalog
   3. Item Display
   4. Login Utility
   5. Modify Opportunity
   6. Modify Volunteer
   7. Point of Entry
   8. Shopping Cart
   9. Account Creation
   10. Customer Portal
   11. Employee Portal
   12. Volunteer Coordinator Portal
   13. Volunteer Opportunity Portal
   14. Event Management
   15. Inventory Management
   16. People Management
   17. System Management
   18. Management info (I replaced volunteer management with this because the former was redundant with the other application pages listed)
2. Database Tables
   1. Person
   2. Volunteer
   3. Admin
   4. Admin\_events
   5. Event
   6. Roles
   7. Event\_time\_slot\_Roles (relationship)
   8. Volunteer\_role\_preferences (relationship)
   9. Event\_date (relationship)
   10. Volunteer\_availability (relationship)
   11. Time\_slot
   12. Date
   13. Event\_time\_slot
   14. Approval\_list
   15. Signed\_up\_list
   16. Wait\_list
   17. Attend\_list
   18. Group
   19. Group\_members
   20. Group\_roles
   21. Shopping\_cart
   22. Inventory
3. Software Components
   1. Authentication w/ Access Control

* User registration with authentication and role based permissions to volunteers, coordinators, and admins to log into the system with different permissions.
  1. User Profile Management
* User hub that allows modification of information and preferences for individual users.
  1. Volunteer Opportunity Browsing
* Search functionality with filterable results for volunteer opportunities.
  1. Opportunity Details
* Provides volunteers with details relevant to an opportunity.
  1. Opportunity Management
* System for volunteer coordinators to create and manage information for opportunities.
  1. Volunteer Assignment / Coordination Management
* Manage Volunteer opportunities and roles working inside and opportunity.
  1. Supply Management
* Inventory control needed for volunteer opportunities.
  1. System Configuration
* System settings for Admins.
  1. User Management / Administration
* Tools for Administration to manage user databases and modify users roles.
  1. Group Management / Administration
* Tools for Administration to manage group database
  1. Cart
* System for users to manage opportunities that the users are not already added to.
  1. Location Tools
* Tools for managing locations relative to volunteer opportunities and users.
  1. Comment Boards
* System for users to communicate with volunteers and volunteer coordinators about opportunities.

ER MODEL

Person

person\_id unsigned int primary key

Username sting key not null

Password string not null

First name string

Last name string

Volunteer Bool

Admin Bool

Volunteer

person\_id unsigned int fk

Address string

Travel range float

Hidden view admin notes (like background check, performance notes)

Admin

person\_id unsigned int primary key

Permissions int (event admin, group admin, system admin) not null

Phone\_number

person \_id fk

Number string not null

Description string

Email

Person\_id fk

Email string not null

Description string

Admin\_events

Peson\_id fk

Event\_id fk

Event

Sys id unsigned int primary key

Date range string (estimate)

Time range string (estimate)

Total\_slots int not null

Slots\_left int (derived)

Address string not null

Description string not null

Roles

Tag string primary key

Description string not null

Volunteer\_role\_preferences (relationship)

roles fk

Volunteer fk

Event\_slot\_time

Time\_slot fk

Event\_slot fk

volunteer\_availibility (relationship)

Time slot fk

Volunteer fk

Time\_slot (30 min time slots)

Sys id primary key

Time string not null

Day string not null

Month string not null

Year int not null

Volunteer\_availibility\_date

time\_slot fk

Person\_id fk

Event\_slot

event\_slot\_id primary key

Event\_id fk

spot\_status Bool not null

Approval\_list (people asking for time slots, before admin approval

event\_slot\_id fk

person \_id fk

Wait list (I think this can be combined with approval, but there is a little bit of a functional difference)

Event\_time\_slot fk

Person\_id fk

attended \_list (for history purposes)

Event\_time\_slot fk

Person\_id fk

Hours float not null

Comments string

Watch\_list (for volunteers to watch events)

Person\_id fk

Event\_time\_slot fk

Group

Sys id unsigned int primary key

Name string not null

Description string

Group\_members

Group\_id fk

Person\_id fk

Member\_type string (admin, normal)

Active/non-active bool

Group\_roles

Group\_id fk

Role\_id fk

watch\_list

Person\_id fk

Event\_slot fk

Location

City string primary key

State string primary key