# **Midterm Project**

**Details of project**

You are meeting with Mr. Bob Rogers and Ms. Edna Smith.  Mr. Rogers is the director of the local Senior Center, where senior citizens gather to socialize, use library facilities, hold meetings, and conduct bake sales, among other activities.  Ms. Smith, a prodigious baker, organizes the bake sales, recruiting bakers, assigning tables, collecting table rental fees, sending out flyers, and so forth.  As Ms. Smith is not technically savvy, she keeps track of all these things by hand in a large ledger book.  Mr. Rogers would like to help Ms. Smith to modernize her operation to better coordinate scheduling of sales, collection of fees, and improving the social profile of the Senior Center.

As Ms. Smith is not much of a smartphone user and only uses a computer to "do email" with her grandchildren, Mr. Rogers says that the system must be as simple as possible to use.  Ms. Smith adds that it also must use big writing because her eyes aren't what they used to be.

The system will need to accommodate four different kinds of users:

Administrative users.  Essentially, the interface that Mr. Rogers will use, which will feature a calendar to coordinate events, a transaction record to keep track of payments, and a user management interface that will allow him to create accounts for other users and reset passwords manually if needed.

Bake Sale Management users: This one is for Ms. Smith.  It will have a view of the calendar which will show her dates that are available for sales, and any sales already scheduled.  For each sale, it will allow a display that shows how many tables are available and who is registered for the sale.  She will be able to assign tables to sellers, preferably by dragging icons from a list of sellers to a graphical table layout.  Mr. Rogers objects that his interface should allow him to create and edit table layouts to match the available space.

Bakers/Sellers: Users can sign up to participate in a bake sale and potentially pay the registration fee online.  Ms. Smith says she still wants to be able to accept cash/checks, so she'll need some way to manage that in the system as well.  Sellers will be able to create a list of items they intend to sell and optionally include pictures of the goods.  Mr. Rogers says he wants to be able to create ads and flyers from these pictures and information, so his interface will need some way to display it.

Customers:  Customers can view the Senior Center's website and see ads for upcoming bake sales, which will link to this application to provide more information.  Customers don't have to log in to see sale information.

**Answer:** From this detail in question here is the answer to the question. So, the first part of the project is to work with GitHub and create repository for this project. copy that detail of the project because need to read everything then written requirements.

**Top level goals:**

(1) Provide an easy-to-use bake sale management system.

(2) Ensure accessibility for Ms. Smith.

(3) Allow multiple user roles with specific permissions.

(4) Provide a user-friendly interface for managing volunteers, create online bake sale and broadcast outreach messages.

(5) Enable efficient data storage and management for volunteer and event information.

(6) Support communication features like email and text broadcasting for event promotions.

(7) Ensure system scalability to handle large numbers of users and events.

**High-Level Component Architecture**

(1) Frontend: User-facing application website and application where users interact with the system.

Basic: HTML, CSS, JavaScript

Framework: React, Angular

(2) Backend: Handles business logic, data processing, and interactions with the database.

Software Requirements: Node.js, Python, Java

(3) Database: Stores and retrieves data for the application.

Database Requirements: MySQL, MongoDB

(4) API Layer: Allows communication between the frontend and backend.

Software Requirements: RESTful API, Graph QL

**Functional Requirements**

*Admin Features:*

View and manage calendar events.

Track transactions and payments.

Manage users and reset passwords.

Bake Sale Manager Features

View the sale schedule.

Assign sellers to tables using a drag-and-drop system.

Track cash and check payments manually.

*Bakers/Sellers:*

Register for sales and pay online (or mark offline payment).

Create a list of items with pictures.

Modify their listings before the sale.

*Customers:*

View upcoming sales.

See items for sale.

No login required.

**Non-Functional Requirements**

Simple UI: Large fonts, minimal clicks.

Performance: Fast load times for slow connections.

Security: Role-based access control.

Scalability: Can add more sales or users in the future.

**Diagrams for the project:** Entity-Relationship Diagram

A computer screen shot of a computer

AI-generated content may be incorrect.

Use-case Diagram:

A diagram of a company

AI-generated content may be incorrect.

Data Flow Diagram:

A diagram of a company

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