

Main Feature 1: Groups/Food Plan

Details

Groups of users with a shared nutritional goal. One of our WebSockets (the group chat feature) will allow these users to communicate with each other.

*POTENTIAL FEATURE: Groups can be “public” in which any user can join, or “limited” where users will require approval to be able to join, or “private” where users can only join if invited.

Users will have permission to join and leave groups. They will also be able to join multiple groups. Users will also be able to view a list of users in the group.

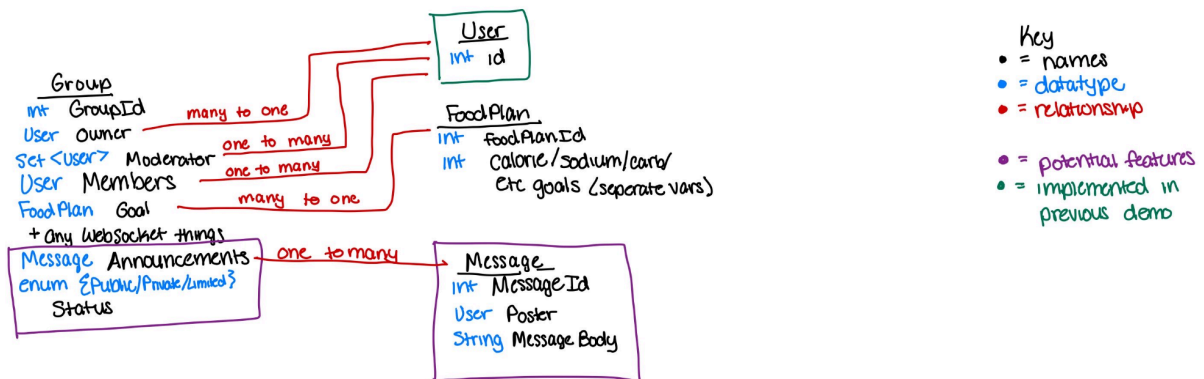
*POTENTIAL FEATURE: Users will be able to view the profiles and achievements (see Main Feature 3) of other users in their group. If this is implemented, users will have to be modified to include which aspects of their profile they are willing to make public.

Groups will have an “owner” (recorded by a OneToOne relationship with Users) and any number of the role “moderator” (recorded by a OneToMany join table to Users). Owner and Moderator will both be able to change the nutrition goals of the group, remove group members, and invite users to the group. Moderators will not be able to remove other Moderators or the Owner from the group. Owner will be able to remove Moderators from the group, promote non-Moderators to Moderators, demote Moderators to non-Moderators, and transfer Owner to another member of the group.

*POTENTIAL FEATURE: An announcement system where Owners and/or Moderators will be able to send a custom notification (see Main Feature 3) to all members of the group.

Administrator users will be able to perform all functions of the Owner.

Data Visualization



Main Feature 2: Notifications

Details

Users will be able to opt into notifications for goals/badges completed. Users will be able to enable the type of notifications they want to receive from the application.

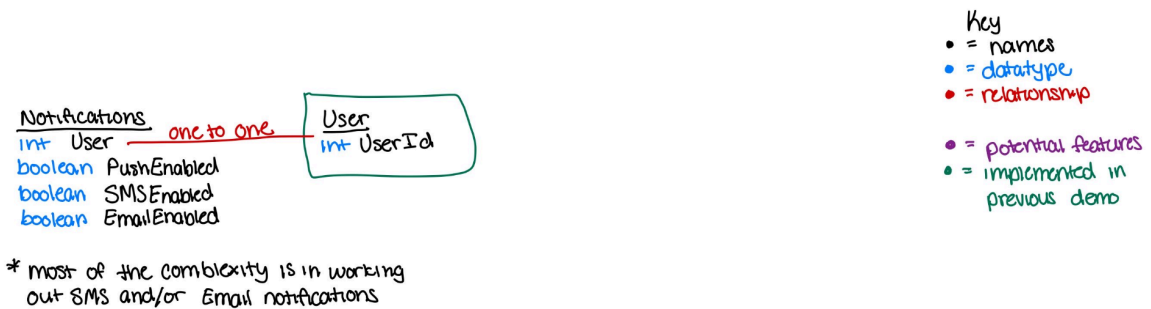
Notifications and their ensuing message will be stored in a table, and when a goal (see Main Feature 3) is completed, and notifications are enabled, notifications of the enabled types will be sent out.

Libraries may have to be used for aspects such as push notifications. SMS or email notifications. More research on how exactly to implement these will need to be discussed.

Users will be able to adjust their own notification settings, turning on and off each type of notification.

Administrators will be able to adjust the notifications of all users.

Data Visualization



Main Feature 3: Achievements/Badges

Details

Achievements will serve to encourage users to encourage consistent behavior and to incorporate the app into part of their daily routine.

Users will “gain” achievements by completing certain tasks such as logging in for a number of consecutive days, maintaining their nutrition goals for a certain number of days, using the group chat feature, suggesting food items to be added to the database, etc.

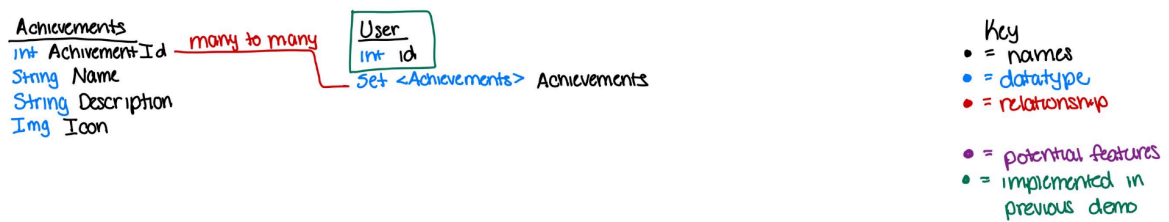
Each type of achievement may require its own function/implementation in the achievement class to check if it is fulfilled, but all achievements will be stored in a join table linking a user to the achievements they have fulfilled the requirements for.

Achievements may have associated badges, a small graphic representing the completion of that achievement.

Users will not directly interact with the achievements, but when they fulfill the requirements for the achievement, they will have it automatically added to the relations table. Users will be able to see a list of possible achievements as well as their progress towards completing those achievements.

*POTENTIAL FEATURE: Users may display one or multiple badges associated with an achievement they completed next to their name in group lists and the group chat.

Data Visualization



Main Feature 4: Advanced Search/Filtering

Details

Quality of life improvements to pre-existing features by adding a search function to various aspects. This search function will include filtering results by keywords in the name or description and sorting by various attributes in ascending or descending order.

*POTENTIAL FEATURE: Advanced search function allowing them to apply multiple filters.

Users will be able to search the database of food items and individual menus in this way.

*POTENTIAL FEATURE: Users will be able to search groups filtering by size and parts of the group's goal.

*POTENTIAL FEATURE: Saving recent searches made by users and having them pop up as "suggestions" to autofill.

Data Visualization

No real changes to databases, mostly implementing filters and sorting with a mixture of Java code and SQL queries.

Websocket 1: Group Chats

Details

Users who are part of the same group will be able to communicate with each other using a chat feature. Messages will be time-stamped and include the user who posted them as well as the message body. This chat feature will include the ability to use emojis either as part of the

message body, as a standalone, or as a “reaction” to a message. There will also be a reply feature where users can reply to other messages, visually linking them.

Users can post messages (including emojis and replies to other messages). Users can also edit and delete their own messages.

Group: Owner and Group: Moderator (see Main Feature 1) will be able to delete the messages of other users.

*POTENTIAL FEATURE: Owners and Moderators will be able to prevent a user from sending messages in the group chat without them being removed from the group, this may be either for an indefinite duration or for a set amount of time.

Administrators will be able to send messages (which will be marked in some way to indicate that Administrators sent them) and perform all functions of Group: Owner and Group: Moderator.

*POTENTIAL FEATURE: Private messaging, a small group chat limited to two users, allowing them to communicate. It could be a sort of temporary group.

*POTENTIAL FEATURE: “Whispers” or chat messages in the group chat that are only able to be seen by a specific member, Group: Owner, Group: Moderator and Administrator.

Websocket 2: Activity Feed

Details

An activity feed of the activity (food eaten, achievements gained, etc) of other users that the user shares a group with. This will update in live time.

When users complete an achievement (if their privacy settings allow for it), a message will be sent out to all of the users they share a group with. If that user has that type of activity enabled, it will show up on their activity feed.

Other important information, such as announcements in groups the user is a part of, changes to meal/goal plans, etc, will also appear in the activity feed. Items in the activity feed will be colored to indicate what type of activity they represent.

Related Feature: Users will have to be updated to include privacy settings with which information they want to share with others. Users will also be updated to include variables that track what information they want to see on their activity feed.