

## Description

### Application Domain

Website with user accounts that sends personalized emails

### Usefulness

This project will be very useful to anyone looking for good recipes to cook for a group of people that they frequently eat with, such as those in their household. Many apps and websites exist that show you different recipes that you can make, even with what current ingredients you have. However, there is no site to my knowledge that suggests recipes based upon a group's preferences, eating habits, and availability. TheMenu will solve the problem of 'What should we cook tonight?' by suggesting the most favored and realistic recipe for that particular group of people.

### Realness

This will be a large project, but I believe I can do it. I already have a pretty good idea of how to do most of the functionality. I've had a lot of experience recently with complex websites involving user accounts. A lot of the code could be salvaged from previous projects and specialized for this. The actual data is all user submitted. To get it going, I will add a bunch of recipes as a user. If I have enough time, I will scrub some recipes offline to fill up the database.

## Functionality

### Main Goals:

- Personalized recipe suggestions for a group of people
- Ease of use and simplicity
- Automated grocery lists

### Basic Functions:

- Admins can:
  - Manage users
    - View all
    - Delete any
  - Manage recipes
    - Delete any
- Users can:
  - Login
    - Uses username OR email and password
    - Password recovery via email
  - Logout
  - View profile containing (information is private)
    - Account information
      - Username
      - Owner Eater
    - List of eaters attached to account

- Times as chef
  - Number of meals eaten
  - Overall average taste rating % (if sorted by another eater)
  - Chef ranking (overall)
  - Chef ranking (among these eaters)
- Edit eaters
  - Add (only requires name)
  - Remove (cannot remove owner Eater, must change it first)
  - Change owner eater
  - Add/edit chef recipe level (easy/intermediate/challenging/master)
  - Edit eater description (i.e. roommate, guest, idiot without taste buds, hates ketchup)
- Manage pantry
  - View ingredients
  - Add/remove ingredients
- Submit new recipe
  - Add ingredients
  - Add description (raw text)
  - Records who submitted it
  - Tags are added to describe it (e.g. healthy, dessert, alcoholic, beverage, cheap)
  - Scans description and suggests tags to add, based upon tags that already exist in the system (must be confirmed)
  - Difficulty level (estimate)
  - Time required (estimate)
  - Add picture
  - add instruction
    - add picture of a process
    - add description
- Submit a new ingredient
  - Add name
  - Add picture of the ingredient
- Ask for a list of recipe suggestions (TheMenu)
  - Accept it a recipe
  - Ask for a new list
  - Save as current (current best choice, seen)
  - Mark as a maybe (list-creation persistent)
  - Save as future (ingredients included in generated shopping lists)
- View current meal
  - If no current recipe display the future list, else display current just like view recipe in public
  - Add eaters
  - Mark eaters as chefs
  - Add picture of completed result
  - Add eater enjoyment levels [0, 10]

- Mark as completed (archives meal)
  - View past meals (sorted by most recent) (can click for more info)
    - View on past meal list includes
      - recipe title/difficulty
      - chef names
      - average enjoyment
      - number of eaters
      - result picture (thumbnail)
      - date of meal
    - View when clicked includes
      - recipe title/prep/overall rating + link to view recipe
      - chef names
      - eater names
      - average enjoyment
      - number of eaters
      - result picture (full)
      - date of meal
    - See eater(s) and chef(s) as well as their enjoyment level
    - See date of meal
    - See result image
  - Request shopping list (based upon what you have in your pantry)
    - Can be emailed to the user or printed
    - Has a summary at the top of all ingredients, then lists each recipe's contributions, starting with the current recipe and then goes on to the future recipes
    - Includes what you already have in your pantry with a note saying you already have it
- Anyone can:
  - Search/browse recipes by (any or all of these)
    - Most recent
    - Popularity/rating (based upon eaters' opinions)
    - Tag(s)
    - Ingredient(s)
    - Username of who submitted it
    - Difficulty
    - Has eaten (if logged in)
    - Your rating, highest/lowest (if logged in)
  - Create an account, requiring
    - Username (alpha numeric)
    - Password
    - Name (first/last not required, any string will do) (set as owner eater)
    - Email (confirmation email sent here)
  - View a recipe
    - See picture

- See description
- See ingredients (if logged in, see amount in pantry vs needed)
- See tags (if logged in, can add new tags)
- See instructions in order, with any pictures
- Mark instruction as completed (not saved anywhere, just client side)
- If logged in, can see account's personal rating over all meals using it

### Advanced Functions/uniqueness:

- Can email user a shopping list of ingredients needed for current + future recipes
  - (cool because it is convenient)
- Suggestions are based upon:
  - who is eating
  - who is cooking
  - how much the eater's liked the chef's or chefs' cooking in the past
  - max cooking time desired
  - How long it has been since the eaters have had the recipes
  - Any added tags
  - Ingredients
  - (cool because better suggestions make for easier recipe decision making)
- Accounts are not one person, but actually a group of people that eat together and the app attempts to give them the best recipe to cook and enjoy
  - (cool because then everyone eating is happy)

### ER Diagram Assumptions

- Each account has at least one eater that owns it
- Recipe rating and eater amount (number of eaters that have participated in this meal AND recorded their enjoyment level) are updated after each meal is completed, based upon all the participants' enjoyment. This is for faster comparisons.
- Each meal has at least one eater participating in it that is the chef
- All images are optional, but if they do exist they are only used for one thing each