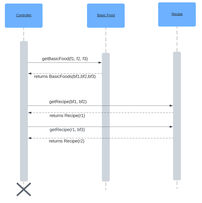
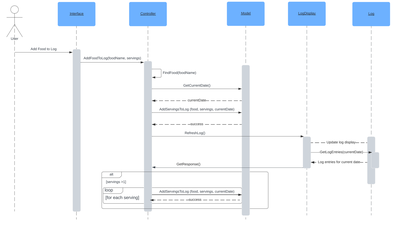
Sequence Diagram Scenario #1



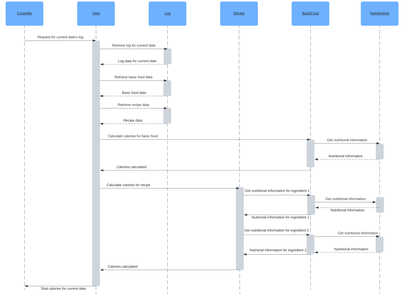
Read in a food database consisting of three basic foods, a recipe that contains two of the basic foods, and a recipe that contains the first recipe and the remaining food.

Sequence Diagram Scenario #2



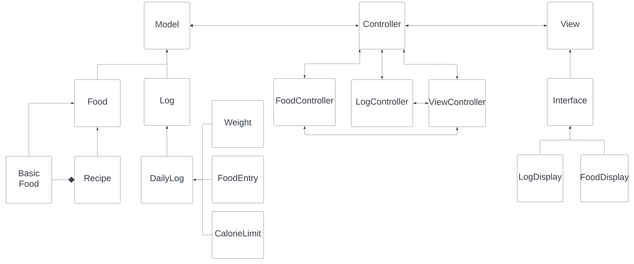
Add two servings of a food to the log entry for the current date.

Sequence Diagram Scenario #3



Compute the total number of calories for the current date, assuming the log consists of a basic food and a recipe consisting of two basic foods.

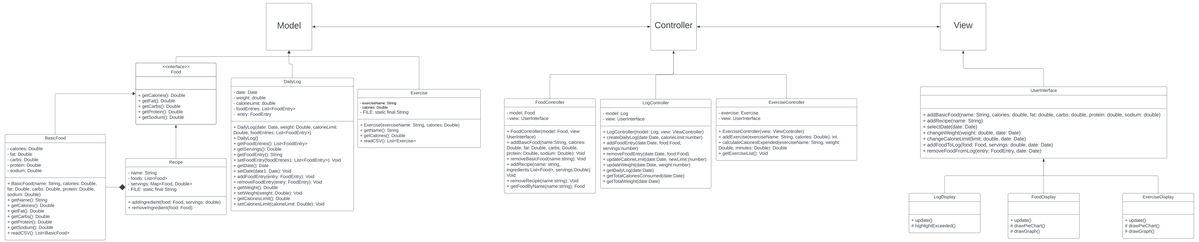
Domain Diagram



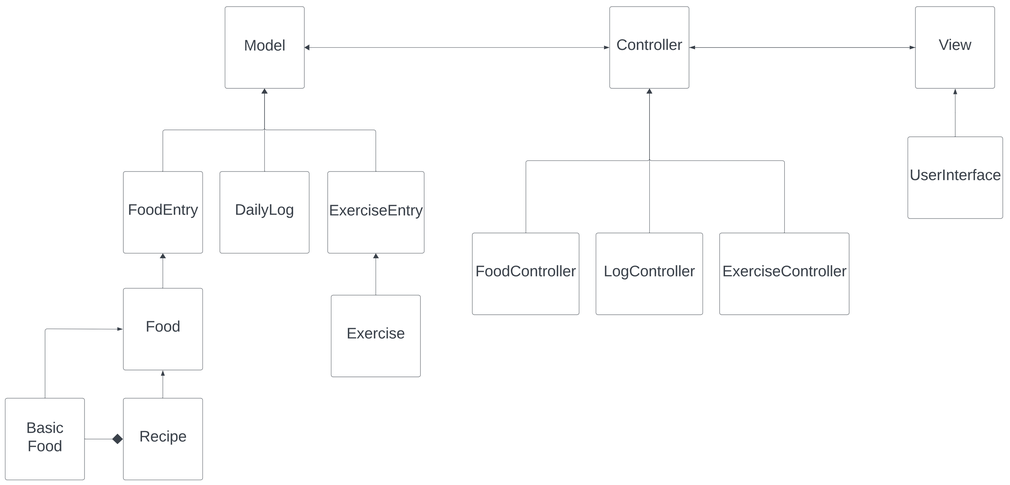
Controller: Acts as the intermediary between the View (UI) and the Model (data). It processes user inputs from the View and translates them into actions to be performed by the Model. Responsibilities include fetching basic food items, generating recipes, and adding food to a log based on user requests.
Model: Represents the system's data structure and logic for handling food items, recipes, and nutritional information. It is responsible for storing and manipulating the data, such as adding servings to a log, calculating calories, and retrieving nutritional information for both basic foods and recipes.
Log: Manages entries related to food consumption. It can add servings to a log, refresh the log display, and retrieve log entries for a specific date. Its primary responsibility is to track the user's food intake over time.
Basic Food and Recipe: These classes are part of the food database. Basic Food represents individual food items with their nutritional data, while Recipe represents a combination of these items into a meal, including the calculation of total nutritional values from its ingredients.

The organization of the system into separate classes for handling the UI, data processing, and data storage (Model-View-Controller or MVC architecture) allows for a clear separation of concerns, making the initial implementation more straightforward and future maintenance or upgrades easier to manage. This separation enhances the system's scalability and adaptability, as changes to one component (e.g., the user interface design) can be made independently of the others (e.g., the data model). However, this approach may introduce complexity in managing the interactions between components, especially for large-scale applications, and could require more effort in the initial design phase to ensure that all components communicate effectively

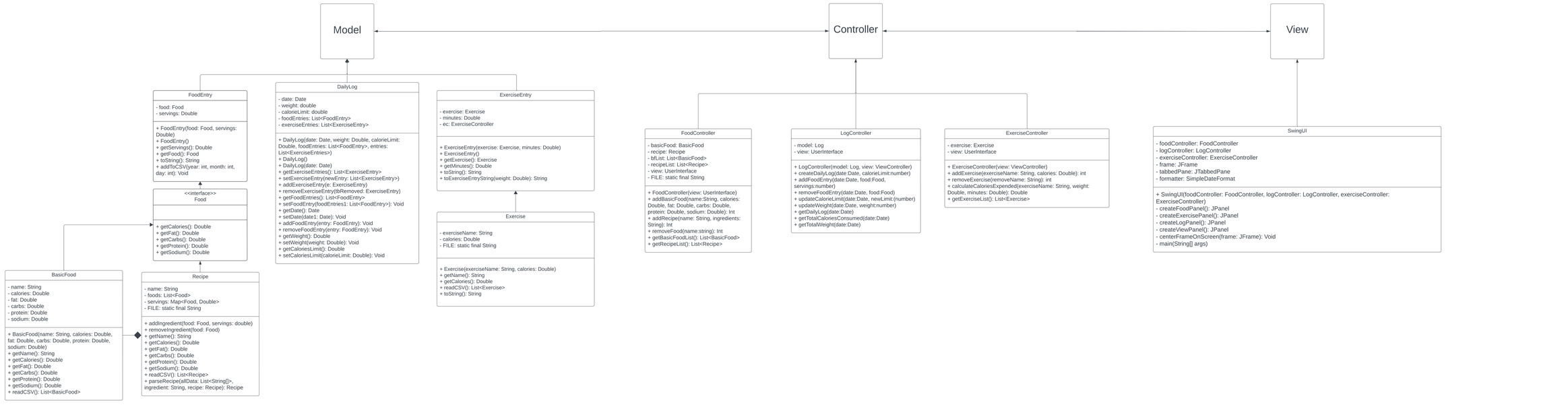
Class Diagram



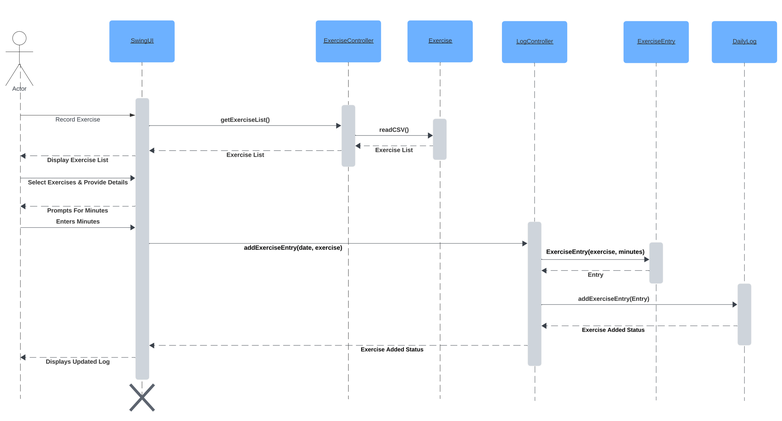
Domain Diagram



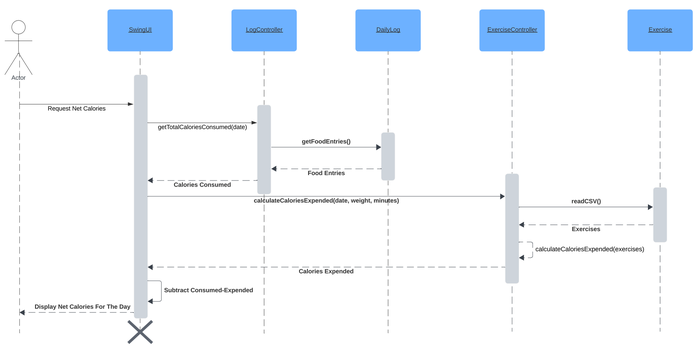
Class Diagram



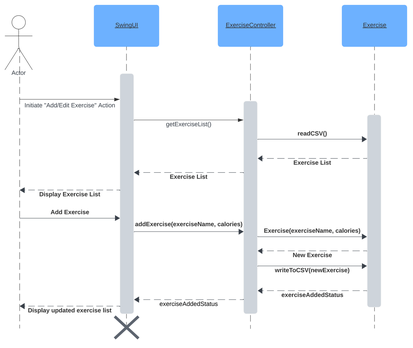
Recording Exercises



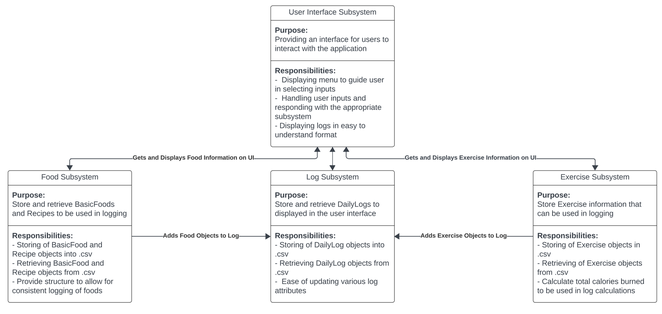
Subtracting calories depleted from calories consumed in order to compute net calories per day.

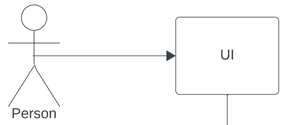


User adds to/edits the collection of exercised provided.



Subsystem Structure





UI

FoodController

Model

- Person clicks add recipe
- UI prompts for recipe name
- UI displays options:
  - Create New Basic Food
  - Add Existing Basic Food
  - Add Existing Recipe
- Person selects "Create New Basic Food"
- UI opens Add Basic Food window
- Person enters basic food information (name, calories, protein ,etc)
- UI prompts for how many servings
- UI stores basic food name and servings in string
- UI ALSO sends basic food information to FoodController
- FoodController add basic food to food.csv
- UI displays add successful
- UI displays options again:
  - Create New Basic Food
  - Add Existing Basic Food
  - Add Existing Recipe
- Person selects "Add Existing Basic Food"
- UI calls FoodController to grab list of Basic Foods
- FoodController notifies Model (Basic Food) to update itself and return
- Basic Food reads in .csv and returns List<BasicFood>
- FoodController reads through List<BasicFood> and updates view with list of basic food
- UI displays list of basic foods for user to choose from and how many servings
- Person selects "Apple" from list and puts 2 servings
- "Apple" and servings are appended to ongoing recipe String
- UI displays options again:
  - Create New Basic Food
  - Add Existing Basic Food
  - Add Existing Recipe
- Person selects "Add Existing Recipe"
  - Repeat "Add Existing Basic Food" process again
- UI displays list of basic foods for user to choose from and how many servings
- Person selects "PB&J" from list and puts 3 servings
- "PB&J" and servings are appended to ongoing recipe String
- Person selects finish recipe
- Ongoing recipe String is then sent to FoodController

Scrap this on the right

Must have something to do with FoodEntry objects

List<FoodEntry>

iterate through FoodEntry list

for(food in FoodEntry)

- Person opens program
- UI will call FoodController.java to return both Recipe.java and BasicFood.java from the foods.csv
- FoodController.java calls both ReadCSV methods of model objects

- find r
- if r, create recipe object
- if Pizza Slice, need to go through csv and look for pizza slice, if exists, create basic food out of pizza slice
- take next number next to pizza slice and use the addIngredient function
- Put recipe in array of recipes