# PROJECT / RELEASE

Project Design Document

## Team B

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## Project Summary

We will be creating an application that allows a user to register their own recipes, daily consumption of food and track their progress of their current diet. The user will be able to add their own basic foods and recipes by giving the program the required information. In addition to this, the user will also be allowed to register his daily food consumption and the applications will automatically keep track of the amount of calories, carbohydrates, fat and proteins that the user has consumed throughout the day.

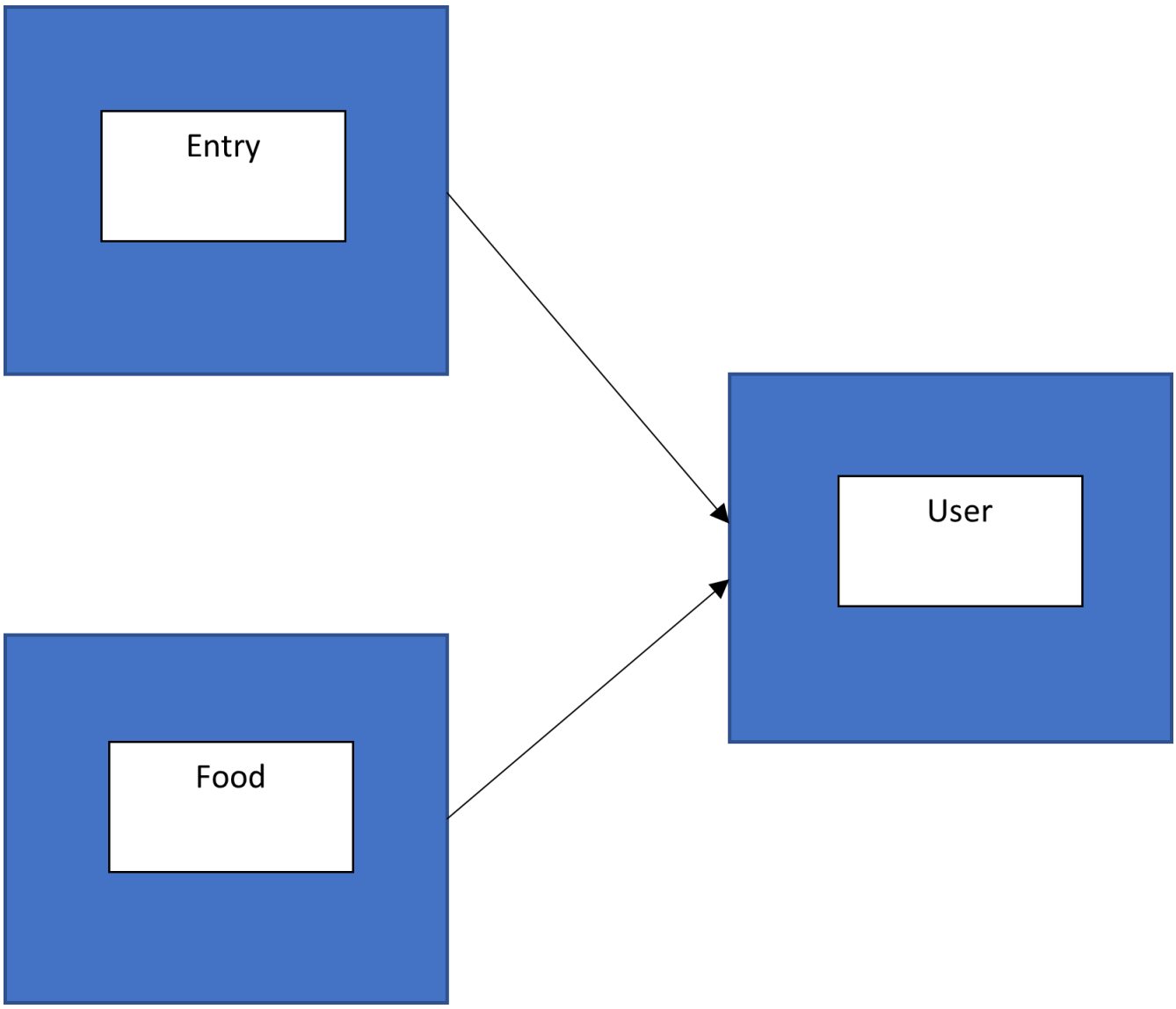
## Design Overview

Team B were assigned to work on delivering a program demonstrating the recipes and log entries of what the users had consumed daily. For example, the user wants to keep track of its calories, proteins, etc. We want to portray an idea of how the food manager manages the ingredients of both basic foods and recipes, later will be used by the log manager to keep track of the consumption of the users. The first step of doing the design is to get a visual idea of how we can see or understand the overview. Team B were able to discuss suggestions in creating this program and being able to provide the same output on the design sketch.

In every meeting, our goal is to focus and ensure that we are all on the same page when working on each assignment of the project. Together, we walk through each step and communicate with each member of the team and take responsibility for parts for the project, such as the design sketch, preliminary design, and the java skeleton. After submitting each assignment, we received feedback from our client, Professor Martinez and Bailey Pearson, regarding what they would like the output to be. So, we decided to focus on the point of being able to read in the food database from the csv files given, and display it.

With our idea, we used a software design pattern called MVC, Model/View/Controller, to decide where each functionality will go. MVC also helps us decide which classes we would later on implement, using the Observer pattern. We have developed our coding platform using the design pattern folders, to input our classes and support the relationship. This MVC tool has allowed us to perform the function and display our expectation of output. Team B was committed to write a program to display the readings of the user's data of consumption.

## Subsystem Structure



## Subsystems

### **Subsystem:** Entries

| **Class:** Log Entry | |
|---|---|
| **Responsibilities** | Represents a logged food item/recipe by the user in the system<br>Provides access to the users weight and goal<br>Provides access to the consumed items calories, fat, carbs, and protein |
| **Collaborators (uses)** | Recipe, Ingredient, User, History |

| **Class:** History | |
|---|---|
| **Responsibilities** | Save a log entry from the user |
| **Collaborators (uses)** | User, Log Entry |

### **Subsystem:** User

| **Class:** User | |
|---|---|
| **Responsibilities** | Allow access to the users name, age, food preference, log entry, history, and recipe collection |
| **Collaborators (uses)** | Log Entry, History, Recipe |

### **Subsystem:** Food

| **Class:** Food | |
|---|---|
| **Responsibilities** | Allow for a food to be consumed as a recipe or as an ingredient |
| **Collaborators (uses)** | User, Recipe, Ingredient |

| **Class:** Recipe | |
|---|---|
| **Responsibilities** | Save a list of ingredients as a recipe or use a recipe as a base for a different recipe<br>Provide access to recipe ingredients, calories, fat, carbs, and protein |
| **Collaborators (uses)** | Food, Ingredient |

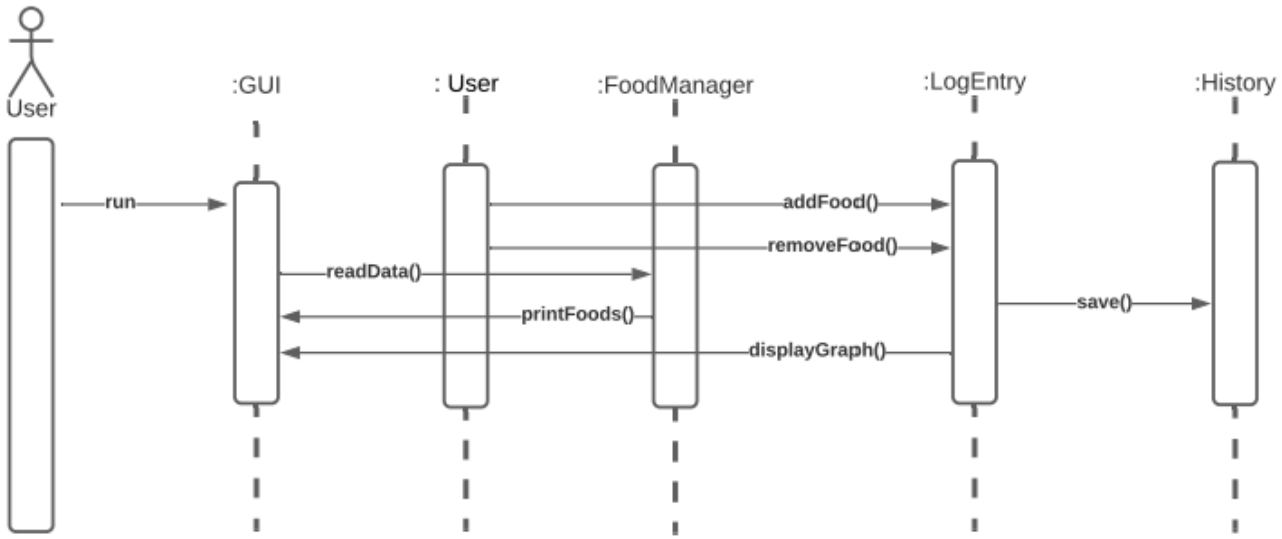
| **Class:** Ingredient | |
|---|---|
| **Responsibilities** | Save a food as an ingredient for recipe use or consumption<br>Provide access to calories, fat, carbs, and protein |
| **Collaborators (uses)** | Food, Recipe |

| **Class:** FoodManager | |
|---|---|
| **Responsibilities** | Read the food database into the program. And populates a list with all the food entries including basic foods and recipes. |
| **Collaborators (uses)** | Food, Recipe |

## Sequence Diagrams

*Diagram #1*

We will be creating an application that allows a user to register their own recipes, daily consumption of food and track their progress of their current diet. The user will be able to add their own basic foods and recipes by giving the program the required information. In addition to this, the user will also be allowed to register his daily food consumption and the applications will automatically keep track of the amount of calories, carbohydrates, fat and proteins that the user has consumed throughout the day.



## Pattern Usage

| Pattern Usage | |
|---|---|
| **Model View Controller (M-V-C)** | |
| Model | Recipe<br>Ingredient<br>BasicFood<br>LogEnteries |
| View | Users |
| Controller | Food Manager |
| **Composite Pattern** | |
| Composite | Recipe |
| Leaf | BasicFood<br>Ingredient |
| Component | Food{Abstract} |
| **Observer Pattern** | |
| Graphic User Interface (View) | |
| WellnessManager | |