Object-Oriented Design of Application Domain Model

For every screen layout we define a corresponding activity class, which are all the controller classes we have.

Controllers:

LoginActivity

{

FetchUser(Username, Password); // Return a User object

Login(User); // Set the current user as User

}

NewUserActivity

{

AddUser(Username, Password, Height, Weight, Gender); // Add a new user

}

NewFoodActivity

{

AddFoodbyText(string); // Add a food by text

AddFoodbyPhoto(); // Return an image object

RecognizePhoto(image); // Use the Google Cloud API to recognize the photo, return a food list

}

ConfirmActivity

{

ConfirmFood(); // Return a food list

}

EstimateActivity

{

EstimatedFood(); // Return a food list with estimated weights

}

ResultsActivity

{

FetchNutrition(FoodList); // Return a food list with calories and nutrition facts

ShowTotalResults(FoodList); // Display the total results

ShowDetailedResults(FoodList); // Display the detailed results

}

DetailedResultsActivity

For the user information, we define a User class to model the users and interact with the user database.

For the food information, we define a Food class to model the food that the users eat for a meal. The food class should provide the API to interact with Google Vision API and Nutritionix API we plan to use.

Models:

User

{

getters and setters

}

Food

{

getters and setters

Food name;

Calories;

Weight;

Fat;

Cholesterol;

Sodium;

Protein;

Carbohydrates;

}

FoodList

{

a list of Food objects;

setters and getters;

}