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;
}