Nutrition App CRC Cards

User Class (Entity)	
Responsibilities	Collaborators

• Represents a user interacting with the app.
• Contains key attributes, including:
 	
    – username
    – passwordHash
    – weight
    – height
    – activityLevel
    – age
	• Stat
	• FoodItem
	
	References User to keep track of their periodic intake. A User instance can be used to access all instances of Stat associated with it, as well as all FoodItem instances associated with them.

Stat Class (Use Case)	
Responsibilities	Collaborators
Stores statistics for the user. Has attributes: • caloricIntake: the total calories for the day. • user: The User instance the stat is linked to. • startDate: when this stat starts tracking. • foodItems: A list of FoodItem • endDate: when this stat stops tracking.	• FoodItem References a list of FoodItem to keep track of what is being consumed throughout that time period. This will also contribute to the Stat that are provided to track progression.

FoodItem Class (Entity)	
Responsibilities	Collaborators
The FoodItem class represents a consumed food item of an associated user. The FoodItem. Attributes: • name: Name of food item • type: Food type (fruit, vegetable, meat, drink) • nutrients: Levels of various nutrients • amount (in grams or litres??)	• Nutrient Keeps track of the name, type, amount and associated nutrients (an instance of Nutrient) from each food item.

Nutrient Interface	
Responsibilities	Collaborators
The Nutrient class makes proper comparisons in terms of nutritional values in addition to keeping track of the totality of nutrient intake. Attributes: • vitamins (amount of vitamins) maybe a map with keys for each vitamin ?? • carbohydrates (amount of carbohydrates) • proteins (amount of proteins) • fats (amount of fats)	• FoodItem Incorporates the different macronutrients that each FoodItem instance contains.

Goal Class	
Responsibilities	Collaborators
The user will set a goal of their body mass with specified duration/deadline. The class has `User`'s goal body mass and date they want to reach that goal. • `userWeight` • `goalWeight` • `dueDate`	• `User`

LoginSystem Class	
Responsibilities	Collaborators
Stores username and password of each user (username). Attributes: • `loginData`: hashtable with key username and value password SHA256 Methods: • `addPerson`: adds a person to the hashtable, inputs are username and password • `checkPassword` same inputs as `addPerson` • `changePassword`: takes in a username and new password, makes required changes	•

MealGenerator Class	
Responsibilities	Collaborators
Constructors with no input or a meal type (Breakfast, Lunch, Dinner, Snack), Calories Goal, and Dietary Information (vegan, vegetarian, etc). Attributes: • `mealType` (either by input or time of day) • `caloriesAim` (either by calories left today or input) • `dietaryInformation` (input or NONE) Methods: `requestMeal`: takes in all 3 attributes, returns a string form of a meal with a little additional information	•

FoodItems Class	
Responsibilities	Collaborators
A database of food items. •	•