IngredientController

Responsibilities
- Allows creation of an Ingredient
- Returns a created ingredient
- Allows editing of an Ingredient
- Allows comparing ingredients
- Allows accessing of the Ingredient details
- Can create a copy of an Ingredient object

Collaborators
- Ingredient
- BasicIngredientListController
- MealPlanController

Ingredient

Responsibilities
- Represents an individual ingredient
- Has a description, best before date, location, amount, unit, and category
- May also just have a description, amount, unit, and category
- Allows accessing of internal data through getters/setters

Collaborators
- IngredientController
- BasicIngredientList
- ShoppingList

Recipe

Responsibilities
- Represents an individual recipe
- Has a title, preparation time, # of servings, category, comments, photograph, list of ingredients
- Implements getter/setters for recipe fields

Collaborators
- RecipeController
- RecipeList
- BasicIngredientList

RecipeController

Responsibilities
- Allows creation of a Recipe
- Able to add an image to the recipe
- Able to add a list of ingredients to the recipe
- Allows editing of a Recipe
- Allows comparing of Recipes
- Allows accessing of the Recipe details (viewing recipes)
- Be able to scale the # of servings for a recipe
- Allows creation of copies of recipe objects

Collaborators
- Recipe
- RecipeListController
- BasicIngredientListController
- BasicIngredientList
- MealPlanController

IngredientStorageActivity

Responsibilities
- An activity that displays the visual components of the IngredientStorage of the MealPlanner
- Displays the list of ingredients that are in the IngredientStorage
- Contains a button to sort ingredients by description or best before date or location or ingredient category
- Allows adding of a food (uses a hAgrithm)
- Able to click on an individual ingredient to view/edit or delete it
- Communicates with the ShoppingList to notify when an item has been edit/added/deleted
- Allows navigation to the other 3 screens
- Communicates with the Firebase to save or store ingredientStorage list

Collaborators
- BasicIngredientListController
- ShoppingListActivity
- RecipeActivity
- MealPlanActivity

BasicIngredientListController   Sub-Class: ShoppingListController

Responsibilities
- Able to create a BasicIngredientList
- Able to add Ingredients to the BasicIngredientList
- Able to delete Ingredients in the BasicIngredientList
- Able to access elements of the list and their data
- Allows displaying of this list
- Able to sort the list based on the Ingredient parameters

Collaborators
- IngredientController
- BasicIngredientList
- RecipeController
- MealPlanController
- IngredientStorageActivity

BasicIngredientList   Sub-Classes: ShoppingList

Responsibilities
- Contains a list of ingredients
- Allows adding or deleting elements in the list
- Able to access list data
- Allows sorting of the list

Collaborators
- Ingredient
- BasicIngredientListController
- ShoppingList (subclass)
- Recipe
- RecipeController
- MealPlan
- MealPlanController

RecipeList

Responsibilities
- Contain a list of recipes
- Allows adding or deleting of recipes
- Can access number of recipes

Collaborators
- RecipeListController
- Recipe
- MealPlan
- MealPlanController

RecipeActivity

Responsibilities
- Contains a list of the MealPlanners recipes
- Displays the list of recipes
- User is able to tap to add a recipe
- Can display details for a recipe
- Can display details for a recipe
- Contains GUI elements that enable sorting of the recipe list
- Needs to update the visuals whenever there is a change in the reciplist
- Be able to communicate with FireBase to save or access the recipe list
- Allows navigation to the 3 other Activities

Collaborators
- RecipeListController
- MealPlanViewActivity
- ShoppingListActivity
- IngredientStorageActivity

RecipeListController

Responsibilities
- Can create a list of recipes
- Allows duplication of a recipe or a list of recipes
- Be able to add/delete recipes
- Be able to view the entire list of recipes
- Be able to view or edit an individual recipe
- Be able to sort recipes by titles, preparation time, # of servings, or recipe category
- Be able to scale all recipes in the list
- Can generate all ingredients that are needed for a list of recipes

Collaborators
- RecipeList
- Recipe
- MealPlanController
- RecipeActivity
- MealPlanActivity

ShoppingListActivity

Responsibilities
- Displays the Meal Planner's shopping list
- Able to press buttons to sort the ingredients by description or category
- Meal Planner is able to note that an individual ingredient has been picked up
- When an ingredient has been picked up, display a button that sends Meal Planner to add the Ingredient to IngredientStorage
- Display each ingredient and it's description, amount, unit, and category
- Allow visual updating og the ShoppingList when required
- Allow navigation to the other 3 acitvities
- Able to communicate changes to/from ShoppingListController
- Communicates with FireBase to save or access the ShoppingList

Collaborators
- ShoppingListController
- MealPlanActivity
- RecipeActivity
- IngredientStorageActivity

ShoppingListController   SuperClass: BasicIngredientListController

Responsibilities
- In addition to what the BasicIngredientListController implements, this should implement some extra features
  - Add a note associated with an Ingredient that it has been picked up
  - Adds ingredients with certain fields left empty
  - Able to view/access certain fields of the ShoppingList (no BestBeforeDate & Location)
- Allows automatic updating of the list based on MealPlan and IngredientStorage

Collaborators
- ShoppingListActivity
- ShoppingList
- BasicIngredientListController (superclass)

ShoppingList   SuperClass: BasicIngredientList

Responsibilities
- Allows an ArrayList containing notes for each element
- Allows editing of the note

Collaborators
- BasicIngredientList
- Ingredient
- ShoppingListController

MealPlan

Responsibilities
- Represents a meal plan for several upcoming days of meals
- Contains a list of recipes and a list of ingredients

Collaborators
- MealPlanController
- BasicIngredientList
- RecipeList

MealPlanController

Responsibilities
- Can create a meal plan and creates a RecipeList and IngredientList for the MealPlan
- Allows adding of Ingredients and Recipes to the MealPlan
- Can calculate all the ingredients needed for a mealplan
- Able to delete ingredients/recipes from the MealPlan
- Able to scale all recipe servings
- Able to view all recipe + ingredient info

Collaborators
- BasicIngredientListController
- BasicIngredientList
- RecipeList
- IngredientController
- ShoppingListController
- MealPlanActivity

MealPlanActivity

Responsibilities
- Display the meal plan and the recipe and ingredient info
- Allows scaling of all recipes in the MealPlan
- Can add/delete Ingredients and Recipes
- Communicates with FireBase to save/save/access MealPlan
- Allows navigation to the other 3 activities

Collaborators
- MealPlanController
- RecipeActivity
- ShoppingListActivity
- IngredientStorageActivity