# Project Specification for Group # 220

## Team Name: BIEBB

## Domain: Personalized Meal Planner

## Software Specification:

The user should be able to create their own recipes, retrieve existing online recipes, save interesting recipes, and export/download recipes. In addition, the app should make recipe recommendations based on the user’s preferences and intolerances as well as nutritional information. Finally, the program should offer detailed analyses of recipes based on factors that the user is interested in.

## User Stories:

1. Ariana wants to create her own recipes. She runs the program, clicks on the “Create Recipe” button, and is prompted with a blank recipe for her to fill out.
2. **Ariana wants to view existing online recipes. She runs the program, clicks on the “Browse Recipes” button, and is given the choice to apply search filters. She is then given a list of recipes that best suit her needs.**
3. Having created or found interesting recipes, Ariana wants to save them. She runs the program, clicks on the “Save Recipe” button, and that selected recipe is saved in a database. The next time she runs the program, she will be able to view it.
4. Ariana wants to view her saved recipes. She runs the program, clicks on the “Saved Recipes” button, and is given the list of recipes she has previously saved.
5. Ariana wants to export a recipe. She runs the program, clicks on the “Export Recipe” button, and is given a PDF version of the recipe for her to download.
6. Ariana does not know what to eat and wants to see what the app recommends. She runs the program, clicks on the “View Recommendations” button, and is prompted to apply recipe filters. She is then given a list of recipes that best suit her needs.
7. Ariana wants to get full information about a recipe. She runs the program, chooses one recipe among her saved recipes, and clicks on it. The program will then display all the relevant information about that recipe (as well as a short list of similar recipes).
8. *(Optional) Ariana wants to create a personalized meal plan. She runs the program, clicks on the “Generate Meal Plan” button, and is given a meal plan either for one day or for every day of the week.*
9. *(Optional) Ariana wants to save her meal plan. She runs the program, clicks on the “Export Meal Plan” button, and is given a PDF version of the meal plan for her to download.*

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| Team Story | Maria’s Story | Chloe’s Story | Michelle’s Story | Henry’s Story |
| 2 | 6 | 5 & 7 | 1 | 3 & 4 |

Proposed Entities for the Domain:

Recipe

* int ID
* String title
* String url
* NutritionData nutrition
* ArrayList<Recipe> similarRecipes

SearchFilter (Superclass)

* ArrayList<String> cuisine
* ArrayList<String> excludeCuisine
* ArrayList<String> diet
* ArrayList<String> intolerances
* ArrayList<String> excludeIngredients

RecipeSearchFilter (Subclass)

* String query
* String type
* ArrayList<String> includeIngredients
* float[] carbs
* float[] proteins
* float[] fat
* float[] calories

NutritionData

* int recipeID
* HashMap<String, float> nutrients

*(Optional) MealPlan*

## Scheduled Meeting Times + Mode of Communication:

Meeting time outside of lab: **Every Saturday and Outside of Classes**

Mode of Communication: **WeChat, Zoom, and In-Person**