Final Project Proposal Version 2: Lisa Hachmann, Logan Sweet, Lucy Wilcox (Section 2)

1. **The Big Idea**

We are creating a software which will generate recipes for most daily food types, with a focus on cooking not baking. We are exploring data management, computer generated information, and GUIs. Our minimum viable product is generating a passable salad recipe. Additional goals are creating really tasty recipes, beautiful UI/UX, giving the program increasing levels of freedom and having it still render good food, and the user might also be able to give feedback and possibly even learn from said feedback.

2. **Learning Goals**

All three of us are interested in learning how to make and use GUIs. Lucy is interested in deciding how the computer will generate and decide the recipes, Lisa is interested in how it will use and manipulate the information from the database, and Logan wants to focus the most on creating the GUI. We want to get more familiar with classes, plan our code structure before we begin implementing, become more comfortable using Git, and have clean, reliable, readable, commented code.

3. **Implementation Plan**

We will start with recipe data manipulation in order to move into recipe generation. We will chose a GUI library with the insight of others (professors, NINJAs). We will address our recipe as a dictionary or list of ingredients, and also perhaps with some sort of taste profile. Overall, the program would look at other recipes and see what foods appear together and then look at this online data to chose food combinations.

4. **Project schedule**

Deadlines:

March 30: Create basic implementation plan for software, Have recipe database for testing

April 2: Design Review!

Deliverable: If you have one ingredient, give 1-5 ingredients that go with it. Have final design plan for software execution.

April 6: Use generated list of recipes to make instructions

April 13: Code Review!

April 20: Continue to refine instructions

April 23: Mid-Project presentation, Think about GUI

April 27: Determine if a recipe is “good” or not

May 4: Finish project; practice final presentation

May 6: Final due date and project presentation

5. **Collaboration plan**

We plan to have multiple pair programming techniques: rotating pair programming and experiment with triple programming (having a driver, navigator, and googler). We plan on having quick reflections with every deadline but also decide before every meeting what we will try to get done, and after every meeting decide what we should individually do before the next meeting. Logan and Lisa both prefer working in pairs, while Lucy is flexible and neutral, so the decisions on the pairing of work will happen based more on scheduling. We will also have multiple files (one for the GUI and one or more for dealing with our data) so people can focus on different parts and work at the same time. Floobits might also be used so we can work together on the code.

6. **Risks**

We are at risk for making nasty recipes and having inaccurate instructions. The instructions will be a particularly large risk just because every recipe cooks differently and it's hard to base the instructions of a new recipe off an old one. To avoid this, we will start with salads and smoothies, examples of foods with a standard instruction pattern. Getting a functional GUI will be more difficult than running our software through the terminal, but will make a huge difference in terms of professionalism and functionality.

7. **Additional Course Content**

Support on other GUI platforms besides PyGame would be useful to learn about in class. The rest of the project seems manageable with the course content we have already learned, although more understanding of classes and objects will of course help us. We don't really know what machine learning is, but it might be useful.