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Project Topic

Our project topic is based on gathering insight from college-aged students on how their dietary restrictions/preferences influence the decisions that they make when finding day-to-day places to eat on and off campus. With this information we hope to create an app that could help these same people figure out places for them to eat that are safe and provide alternatives that coincide with their restrictions/preferences.

Interviews and Analysis with Insights and Affinity Diagram

One general insight that we discovered from the affinity diagram was that almost all of our participants deal with lactose intolerance and many of them use alternative ingredients and substitutions to make up for their dietary restrictions. For example, AS1 (figure 1) stated they find alternatives to dairy products. AS2 (figure 1) buys lactose free milk, such as soy and almond milk, so that they can still enjoy milk and not worry about their dietary restriction. AS3 (figure 1) eats their cereal with soy milk and relies on specific go-to meals when traveling or at home; they have to take time out of their day to prepare and account for their dietary restriction. This is also evidenced by AS5 (figure 1) who grew up in a vegan household and focuses on eating plant-based products to help avoid inflammation caused by processed foods like wheat and meat. Despite having these dietary restrictions, our participants go out of their way to find alternatives, so they feel like they are eating the real ingredient; AS5 buys plant-based chicken patties so they can enjoy the taste and nostalgia of fried food.

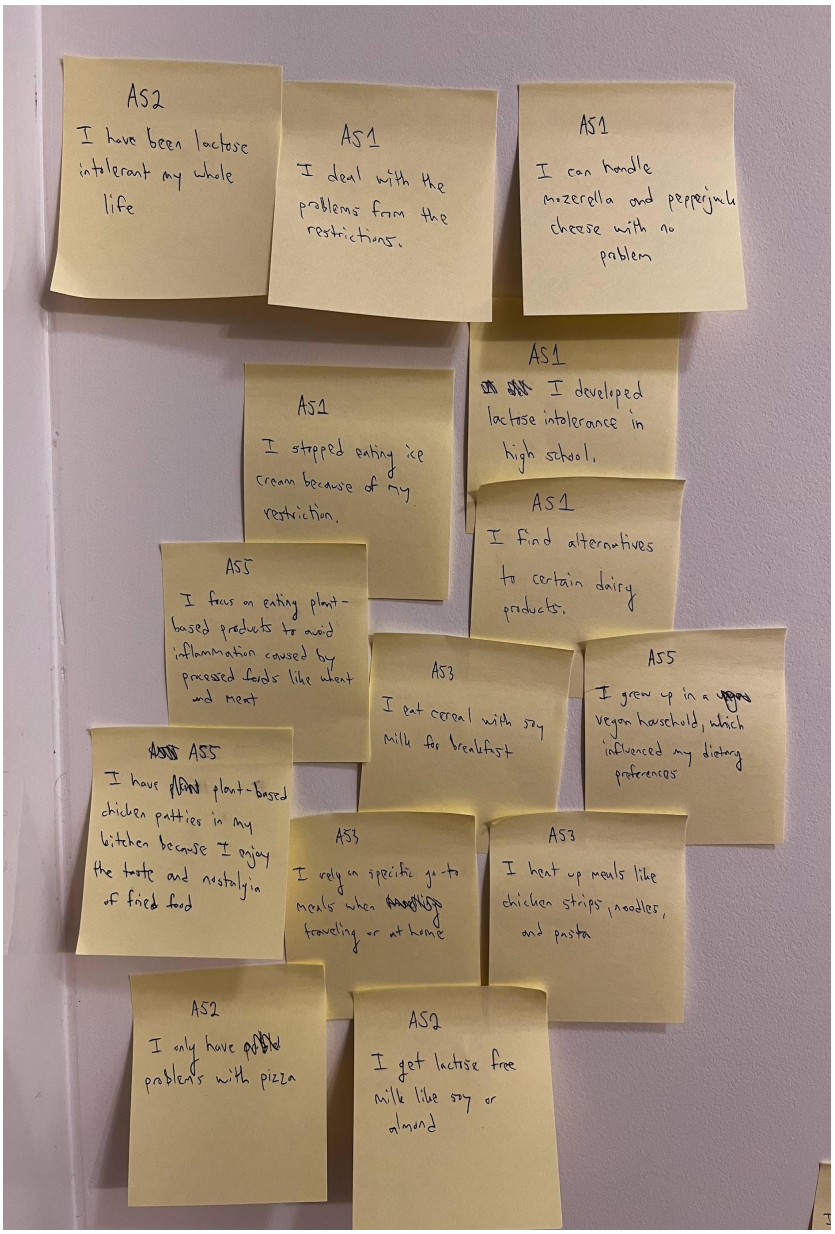


Figure 1

Another general insight we discovered from our affinity diagram is how our participants find suitable food on campus and when dining out off campus. Many of them look at the menus of food options and will consult with the server to understand what menu items they can eat. For example, AS4 (figure 2) lets the server know beforehand about their dietary preferences when dining out. AS5 (figure 2) checks online menus through food delivery apps to help them make

dining choices and AS3 (figure 2) claimed they found menu and online disclaimers helpful when making their food choices. Although some of our participants are able to find suitable food through consulting with restaurant staff and reading menus and/or ingredient lists, others conveyed their frustration and challenges with finding suitable food. For example, AS5 (figure 2) stated they find it challenging finding suitable food, especially with kiosk and convenience-type foods that are often labeled as “healthy”. They believe it's easier to find suitable food in international restaurants. Therefore, we should consider including more international restaurants as suitable options in our app.

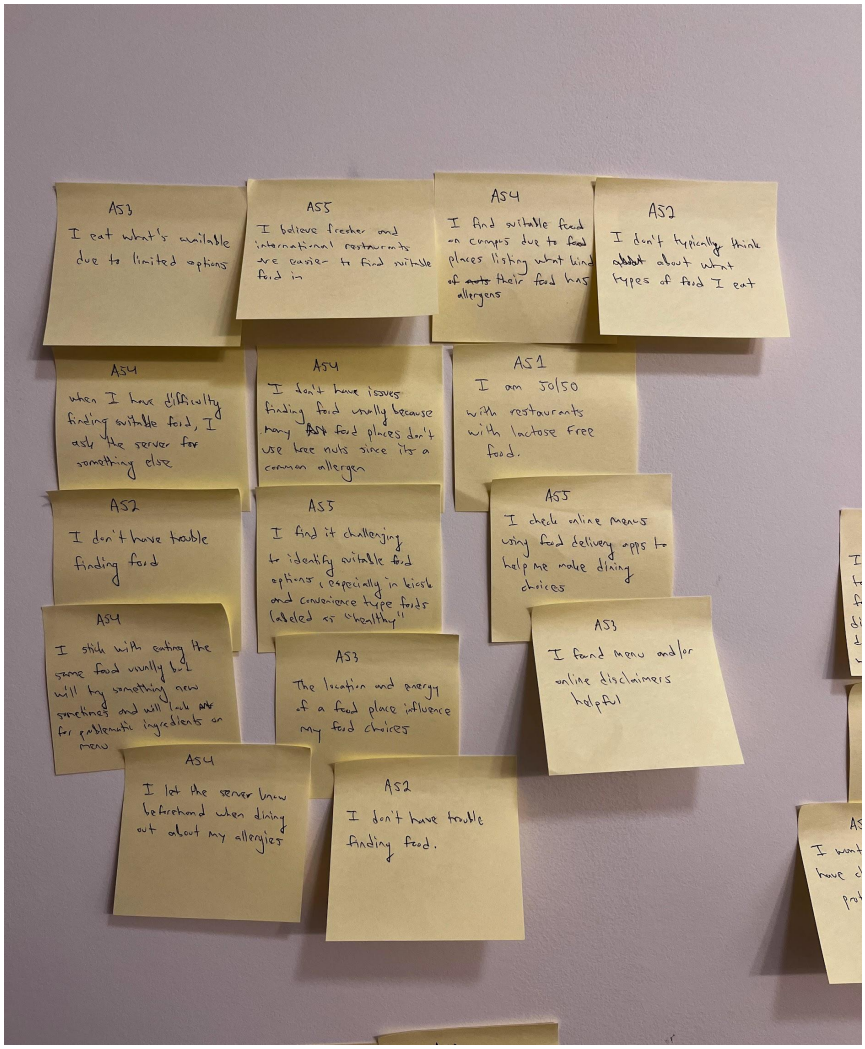


Figure 2

A third general insight we discovered is the potential requirements our participants want the app to have. Many of them, such as AS2 and AS5 (figure 3), want the app to filter food choices based on their dietary restrictions, food types, and whether the food is prepackaged or served on site. AS5, AS1, and AS3 (figure 3) want the app to have a list for each food location the potential dietary restrictions and allergies in their food and to list the substitutions and alternative ingredients they have. This will allow our users to make informed choices about where to dine out without having to call the food location and/or talk with the staff there. Some other concerns that our participants want the app to address are a list of each restaurant's allergen protocol and whether a restaurant has any cross contamination with potential allergens. These are important safety features our app should have, so our users feel safe and comfortable buying food from each food location in the app.

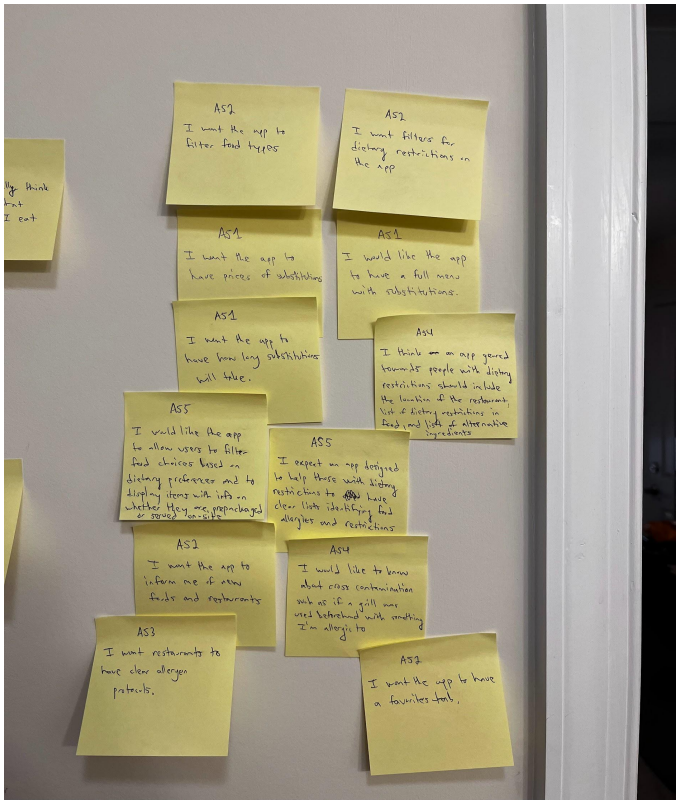


Figure 3

An important insight we found is also how our participants feel when looking for suitable food. It's important to take this emotional aspect into account because it can help us design our app to satisfy our user's needs and make them feel excited to use our app. AS3 and AS5 have both had challenges dealing with their dietary restrictions (figure 4). AS5 had some embarrassing interactions with peers in highschool due to their dietary restriction and AS3 sometimes opts out of social events because of their food concerns. It is important for our app to address these emotional and social challenges, which will have a lasting impact on our users and change their lives for the better.

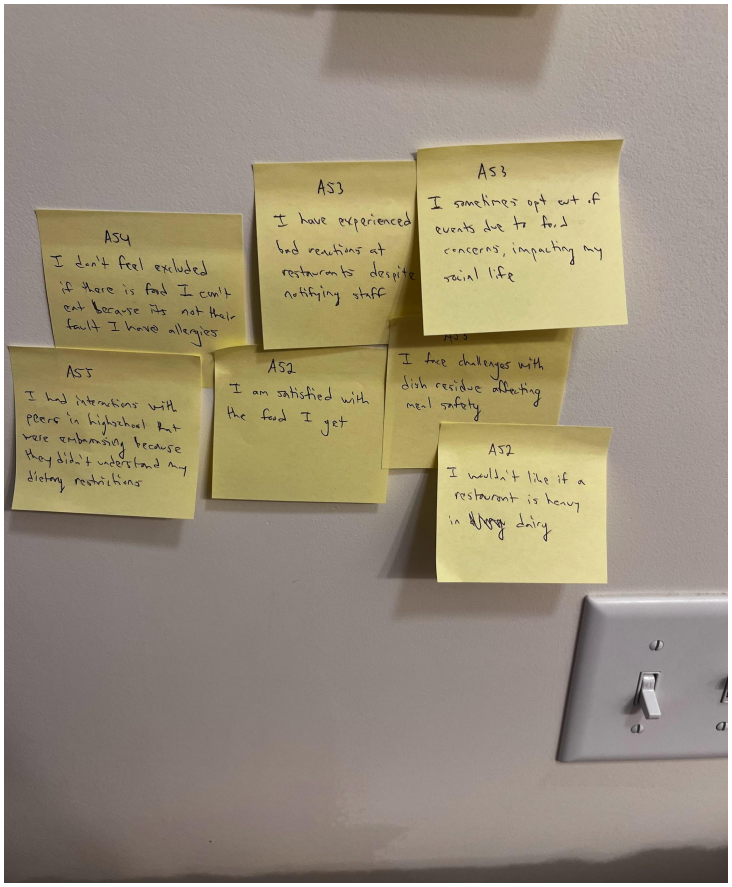
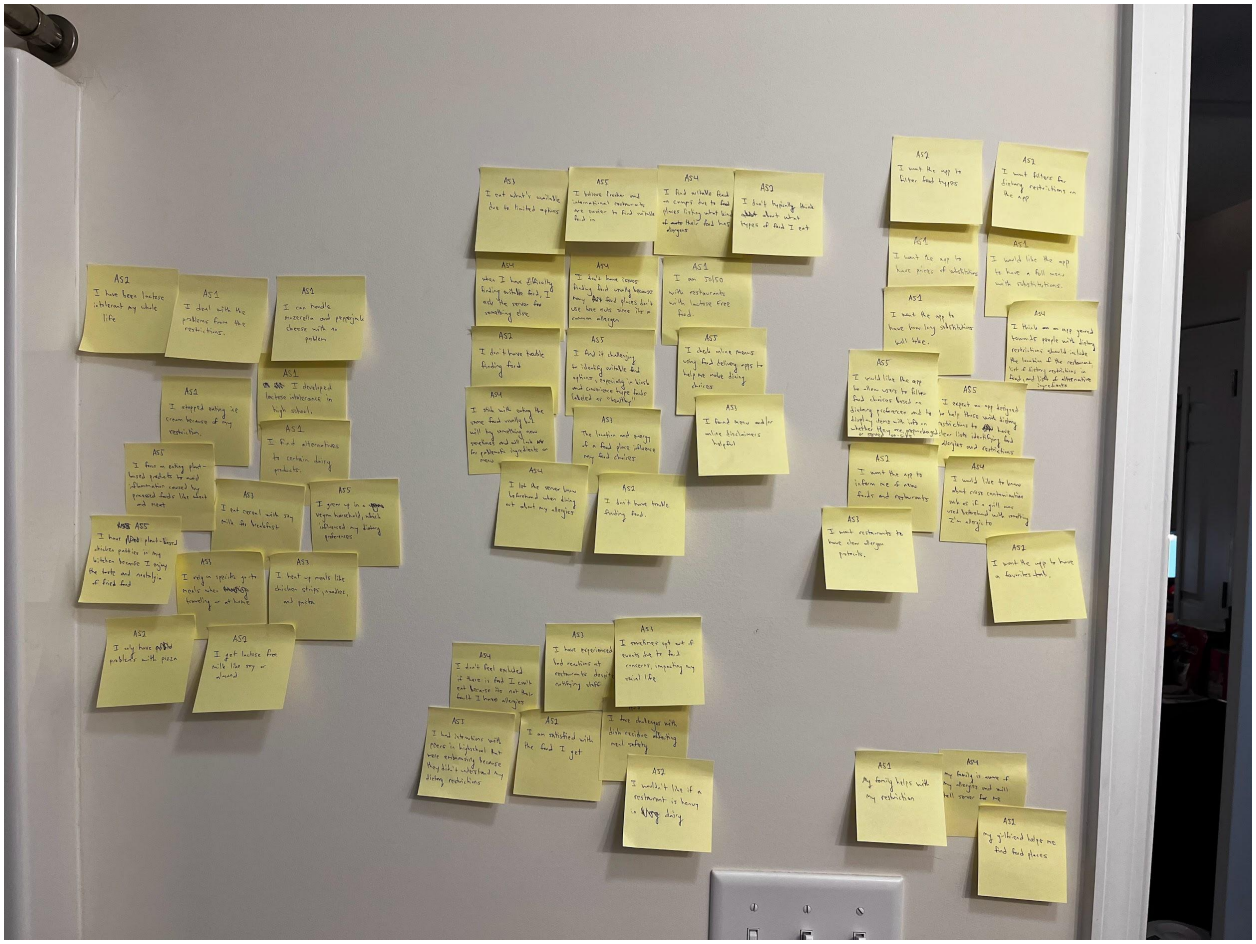


Figure 4



Full Affinity Diagram

Persona

Persona: Emily Parker

Background: Emily Parker, a 21-year-old college student majoring in Environmental Science at JMU. Emily chose this university because of its strong commitment to accommodating students with severe allergies, a significant concern for her. She grapples with a severe peanut allergy, an allergy so intense that even trace amounts of peanuts could trigger a life-threatening reaction. Emily lives in a well-organized apartment, and she maintains a meticulous environment to ensure her safety.

Behaviors: Emily is extraordinarily diligent about her safety. She closely inspects food labels for any signs of peanut-related ingredients and carries an EpiPen at all times. To minimize the risk of accidental exposure, she often cooks her meals herself, allowing her to have full control over ingredients.

Successes: Emily's commitment to her safety has allowed her to create a secure space at home and on campus. Her dedication to education and awareness has positively impacted her college community, fostering a better understanding of severe allergies among her peers.

Frustrations: While Emily excels in managing her safety, challenges still arise. Cross-contamination risks in shared kitchen spaces can be daunting, making dining out a stressful endeavor. Social gatherings that involve snacks or shared dishes can be isolating for her, as she must navigate the delicate balance between socializing and safeguarding her health.

Goals: Emily aspires to complete her Environmental Science degree and pursue a career dedicated to sustainability and environmental protection. She aims to advocate for allergy awareness on a broader scale. In the short term, Emily seeks to continue managing her severe peanut allergy effectively, educate her peers, and ensure her college experience is as safe and enjoyable as possible. Her experience goals include being able to enjoy social gatherings without the constant worry of allergens and to create a strong support network on campus for individuals with severe allergies.

Summary: Emily Parker is a college student whose life revolves around managing her severe peanut allergy while advocating for awareness and support. Her commitment to both personal safety and community education makes her an essential persona for our design project, which aims to enhance the college experience for students with severe allergies. We draw inspiration

from Emily's interview data to create an empathetic and user-centric persona that encapsulates the challenges and goals of those who live with severe allergies.

Requirements

1. Our app should allow the user to select filters for their specific dietary needs and when those filters are chosen the app should show restaurants that serve food that caters to those restrictions or any substitutions. We came up with this because there was a pattern that our participants wanted filters for restaurants that fulfill their dietary needs.
2. Our app should have a filter for different types of food and when a certain food type is chosen the app will display restaurants that serve that type of food. We decided on this requirement because our participants and persona don't want to eat the same food every time since they would like variety.
3. Our app should have a favorites tab where users can select restaurants that they frequent regularly or ones that they particularly enjoyed, so when you click on your favorites tab restaurants that you star will pop up. We chose this because our participants want to know what restaurants they know are safe for them since they have been there before and they don't want to search for the same place every time they use the app.
4. Our app should display detailed descriptions of menu items, including information about ingredients and preparation methods. We decided to include preparation as cross contamination with food allergies can also lead to severe reactions. This requirement addresses the need for transparency in their food choices.
5. Our app should have both user reviews and approved restaurants who follow specific guidelines in preparation of food and users' experiences with that SPECIFIC restaurant as

methods can differ from restaurant to restaurant even if they are the same chain. The requirement for both user reviews and approved restaurants is in line with the insight that the app should be user-driven and up-to-date. Users may have different experiences with restaurants, and this requirement addresses that variation.

6. Our app should use geolocation to recommend nearby restaurants and food options that align with the user's dietary restrictions. This requirement addresses the convenience aspect of finding suitable food choices when users are on the move, not just limited to local areas.
7. Our app should warn users and provide alerts when looking through specific restaurants that either carry or have been reported to serve foods that are filtered out. This requirement will emphasize the importance of user health and safety through live and up to date updates.
8. Our app should provide a feature to allow users to scan barcodes or search product names to tell if those items meet their dietary restrictions or preferences in a quick manner. This requirement addresses the need for quick and easy checks on product compatibility with dietary restrictions. Users would want to ensure products meet their criteria before purchasing them.
9. Our app should create a meal planning tool that generates personalized meal plans based on users' dietary restrictions and preferences, ensuring they have a variety of suitable meal options when wanting to cook at home. This would also include ingredient substitution suggestions allowing them to adapt to multiple recipes and expand their choices. The meal planning tool and ingredient substitution feature respond to the insight

that users want to cook at home. It addresses the need for users to plan and prepare meals that align with their dietary restrictions and preferences.

Team Members' Contributions

Samuel Joo: I worked on two interviews with Ryan as a note taker and an interviewer. I also worked through creating the requirements of the application after looking through the interview results and specifications that users would want on the application. I also made some activity notes as well.

Ryan West: I worked on two interviews, one as a recorder and one as the interviewer. I also completed the persona profile after looking at input from our various interviews.

Alex Karapetkov: I worked on four separate interviews, two as the interviewer and two as the note taker. I also put together the affinity diagram and completed the general insights/analysis from the diagram.

Josh Kuesters:

I worked on four separate interviews, two as the interviewer and two as the note taker, while also drafting up the assignment with the project topic and creating the format for the paper. I also made activity notes that went into the affinity diagram and insights, and I made some requirements for the product.