

“Allergy Assist”– Mobile App and Website

Food Allergies in the United States

Every three minutes, a food allergy-induced reaction sends someone to the emergency room (FARE). Food Allergy Research & Education (FARE) estimates that 15 million Americans have food allergies, and the numbers are only increasing. By 2011, one in every thirteen children had a food allergy – a 50% increase from 1997, and this number has continued to grow (FARE). The rate of Celiac disease, a specific type of gluten allergy, in the United States has quadrupled in the past 50 years. Today, an estimated 3 millions Americans suffer from Celiac (MarketResearch).

Roughly 90% of the food allergies in the United States are caused by eight allergens: milk/dairy, eggs, fish, crustacean shellfish, tree nuts, peanuts, wheat, and soybeans (FDA). While the majority of children with a food allergy are allergy-free by the age of 16, teenagers and young adults with food allergies are at the highest risk of fatal food-induced anaphylaxis (FARE). This means that there is an increasing need for resources for young adults with food allergies.

Target Market

Little Giants Consulting recommends targeting the Bloomington, Indiana market for initial product launch. According to the United States Census Bureau, Bloomington currently has 80,440 residents, 31% of whom are 20-24 years old, and the median age is 23.4 (“ACS Demographic...”). Indiana University boasts 31,984 students, 7,604 of who are undergraduate freshman (“Campus Profile”). The CDC maintains that 5.6% of people have food allergies (“FastStats”). If this figure is applied to Bloomington, there are approximately 4,504 residents and 1,791 of college students with food allergies at Indiana University Bloomington. Because AllergyAssist will also be marketable to friends and family members of people with food allergies, this will make the Bloomington market a good test market before expanding to other locations.

AllergyAssist

AllergyAssist will be a mobile app and website that allows users to track and identify restaurants in Bloomington that can accommodate their allergy restrictions. The combination of restaurant ratings and user-driven reviews will help create a supportive community in the Bloomington area, as well as provide a valuable resource to both the allergen community and area restaurants. The rating scale within the app is derived from a combination of objective criteria scores, use of the top eight allergens, and customer ratings.

The in-app scores are weighted internally on a scale of negative two and four, and translated into a rating between one and five. The three criteria that AllergyAssist weighs

for each restaurant are: “number and flexibility of substitutes”, “interchangeability of existing menu items”, and “cross-contamination”. These criteria are weighted differently according to their importance. Figure 1 illustrates the weighted ranking and rating conversion process.

Criteria	Rating (-2 to 4)	Multiplier (Strength of Criteria)	Weighted Rating
# and Flexibility of Substitutes	4	1	4
Interchangeable of Existing Menu Items	4	1.25	5
Cross-Contamination	4	1.5	6
App Score (out of 5):			5

Figure 1. In-App Criteria Rating

Restaurants are also rated based on the extent of their use of the top eight allergens in their menu items. Like the in-app scores, the allergen use ratings are translated onto a one to five scale from an internal negative two to four scale. Figure 2 shows this rating process.

Top 8 Allergen Use	Rating (-2 to 4)
Use of Peanuts in Products	4
Use of Treenuts in Products	4
Use of Dairy in Products	4
Use of Egg in Products	4
Wheat	4
Fish	4
Shellfish	4
Soy	4
Allergen Score (out of 5):	5

Figure 2. Allergen Use Rating

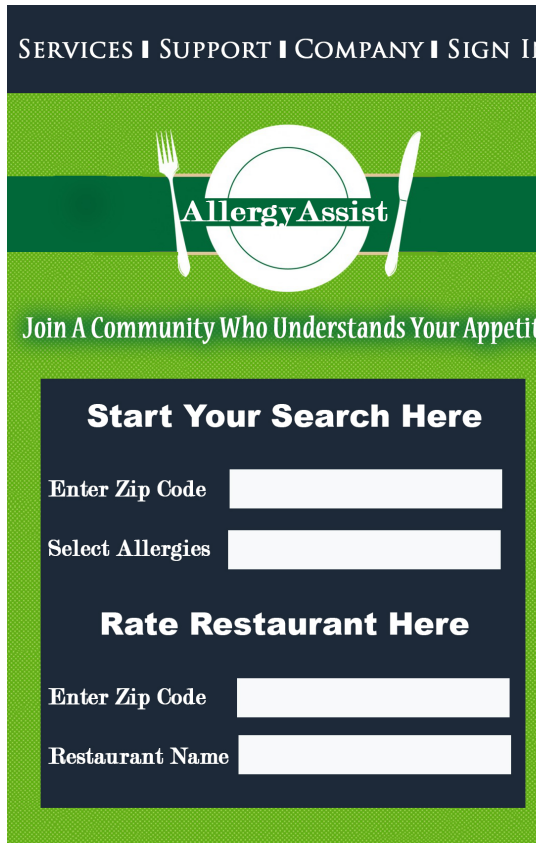
The final aspect of the rating system is reviews from the AllergyAssist users. Users are given the opportunity to rate five different aspects of a Bloomington restaurant based on their personal dining experience. Specific questions about the restaurants help to mitigate the emotional nature of traditional diner reviews and provide a consistent prompt for responses. These questions each correspond to one of the different categories, and users are given a scale of one to five to work from. These ratings are incorporated into the overall restaurant rating. The questions and corresponding rating categories can be seen in figure 3.

Question:	Customer Rating	Rating (1-5)
How helpful was the staff in accomodating your allergies?	Employee Knowledge/Helpfulness	5
Did the staff minimize cross-contamination risk?	Cross-Contamination	5
Were items available for substitution?	Availability of Substitutes	5
How flexible was the menu selection?	Flexibility of Options	5
How would you rate the restaurant overall?	Overall Restaurant Rating	5
User Score (out of 5):		5

Figure 3. Customer Rating

Design

The mobile app starting page will direct users to either search for a restaurant by entering their zip code and specific allergens or rate a restaurant based on the restaurant name (figure 4). Once a specific restaurant is selected, the screen will display the restaurant information (website, hours, phone number, etc.) along with the restaurant allergen rating, including only the users specified allergens. The user will also be given the customer ratings, along with an opportunity to rate the restaurant (figure 5).



The starting page features a dark blue header with navigation links: SERVICES | SUPPORT | COMPANY | SIGN IN. Below the header is a green banner with a white plate, fork, and knife icon, and the text "AllergyAssist". Underneath is a green banner with the text "Join A Community Who Understands Your Appetite". The main content area is dark blue and contains two sections: "Start Your Search Here" and "Rate Restaurant Here".

Start Your Search Here

Enter Zip Code

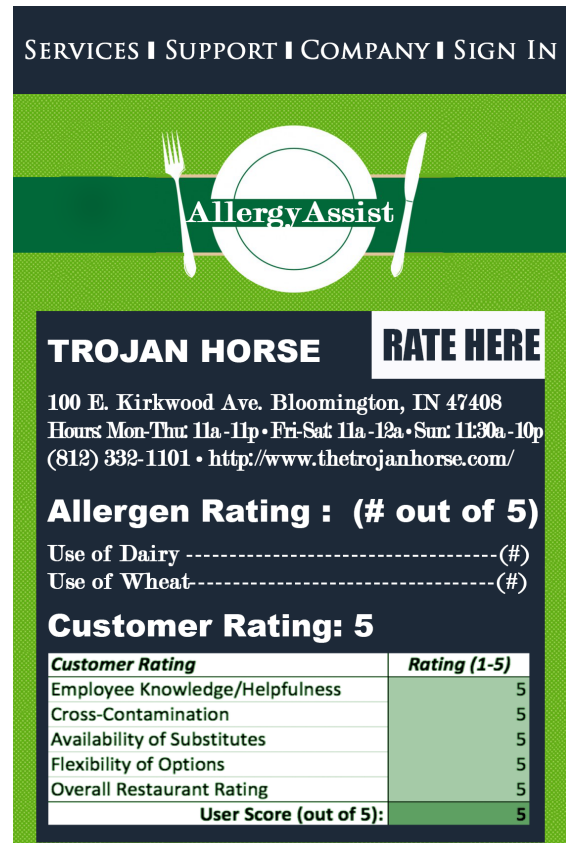
Select Allergies

Rate Restaurant Here

Enter Zip Code

Restaurant Name

Figure 4. AllergyAssist Starting Page



The restaurant information page features a dark blue header with navigation links: SERVICES | SUPPORT | COMPANY | SIGN IN. Below the header is a green banner with a white plate, fork, and knife icon, and the text "AllergyAssist". The main content area is dark blue and contains information for "TROJAN HORSE".

TROJAN HORSE **RATE HERE**

100 E. Kirkwood Ave. Bloomington, IN 47408
Hours Mon-Thur 11a-11p • Fri-Sat 11a-12a • Sun 11:30a-10p
(812) 332-1101 • <http://www.thetrojanhorse.com/>

Allergen Rating : (# out of 5)

Use of Dairy ----- (#)
Use of Wheat ----- (#)

Customer Rating: 5


Customer Rating	Rating (1-5)
Employee Knowledge/Helpfulness	5
Cross-Contamination	5
Availability of Substitutes	5
Flexibility of Options	5
Overall Restaurant Rating	5
User Score (out of 5):	5

Figure 5. Restaurant Information Page

Generating Revenue

AllergyAssist will generate revenue initially by selling ad space around the perimeters of the app and website (figure 6), providing referral links to other restaurant sites, such as Yelp, for royalty fees. Future opportunities also exist to develop and provide a training and certification process for restaurants. If implemented, this training would be available to all restaurants in Bloomington for a fee. The training would not alter their AllergyAssist ratings or assessment. Restaurants will be reassessed annually to help ensure that the information on the app is current and up to date, but restaurants could request to be assessed every three months for an administrative fee. This could be a valuable option for restaurants who are actively making strides towards becoming more allergy-friendly, or who have undergone a recent menu or management change.

AD SPACE HERE >



AllergyAssist

Welcome Hannah,

To the right, you will find restaurants in your area in the order of their allergy friendliness, according to your requirements. If you have visited any of them, please take a minute to fill out your personal rating of the establishment.

Restaurants in Your Area

Click for Customer and Company Reviews & Restaurant Information OR to Rate the Restaurant

Restaurant	Rating
-----	5
-----	4.5
-----	3.5
-----	3.5

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AD SPACE HERE

Figure 6. Ad Placement

Competitors

Although limited, competition does exist in the allergy app market. AllergyEats! is a website and app that provides reviews for restaurants based on users ratings of comfort, accommodation, and knowledge. The National Restaurant Association lists 990,000 restaurant locations in the United States (“2014 Facts...”). According to the AllergyEats! website (AllergyEats!), the app has over 600,000 listings, however, the app is spread very thin and these numbers are a bit misleading. For example, AllergyEats! has 2,306 listings for Indianapolis, IN, but only 21 locations had a review/rating, and of those 21 locations, only 2 restaurants had more than one review.

While AllergyEats! is the only direct competitor, there are two groups of apps that may also serve as competition, those that offer restaurant ratings, but focus on single allergens (Find Me Gluten Free), and those that offer dish identification and substitution suggestions, but no specific restaurant information (iEatOut). By initially focusing on specific markets and providing restaurant reviews for multiple allergens, AllergyAssist can position itself as a market leader in the areas that it chooses to enter.

Risks/Liabilities

There are three liabilities that we have identified as significant. First, the success of AllergyAssist is dependent on the integrity of our restaurant ratings. If the information that AllergyAssist provides is inaccurate or does not reflect user experiences at a

particular restaurant, the app will not appeal to the allergy community. Incorporating user reviews into the rating process could help to mitigate a portion of this risk. This leads to the second liability, maintaining the trust of our viewers. Trust is much harder to build than to break, and maintaining trust will involve active monitoring of the app activity. Finally, the protection of intellectual property is critical to the long-term success and profitability of AllergyAssist.

Future of AllergyAssist

The first critical step towards success is to register AllergyAssist and the assessment tool with the U.S. Patent and Trademark Office to protect the intellectual property. After launching in Bloomington, expanding to other cities with large young adult populations will allow AllergyAssist to continue geographical growth and relevance as an app. Finally, a nearly unlimited potential exists for new products, apps, and programs related to dining and allergies. For example, lobbying for allergen certification requirement from local and federal governments for restaurants could help increase traffic through AllergyAssist's training program.

Investment

To make AllergyAssist a reality, Little Giants Consulting is requesting a \$10,000.00 loan investment for the app development and legal fees in the form of a 5-year note with 5% interest. We believe that AllergyAssist could be game changer for people a quickly growing group of people who struggle to find dining opportunities due to food allergies of their own, or of a family member or close friend. We are confident that a mobile assessment tool like AllergyAssist will be able to serve a market need in a way that no other tool has, and we sincerely hope that you will partner with us in this endeavor.

Bibliography

- "2014 Facts at a Glance." *Restaurant.org*. National Restaurant Association, Web.
- "ACS Demographic and Housing Estimates." *United States Census Bureau*. U.S. Department of Commerce, Web.
- "AllergyEats! - About Us." *AllergyEats - Your Online Guide to Allergy-Friendly Restaurants*. Web.
- "Campus Profile." *Indiana University Bloomington: Student Life*. IUB Office of Admissions, Web.
- FARE. "About Food Allergies." *Food Allergy Research & Education, Inc.* Web. <<http://www.foodallergy.org/>>.
- "FastStats." *Centers for Disease Control and Prevention*. Centers for Disease Control and Prevention, 28 Feb. 2014. Web.
- FDA. "Food Allergies: What You Need to Know." *U.S. Food and Drug Administration*. U.S. Department of Health and Human Services, Web.
- MarketResearch. "Gluten-Free Food and Beverage in the United States." *Gluten-Free Market Research Reports and Industry Analysis*. Marketresearch.com, Web.