**Project Title:** FoodieVenture

**User Analysis**

Our team employed different data curation methods to build robust profiles that closely represent potential users of our app. One strategy we used was a Google Form survey to gather data from peers, family members, and friends who were unable or elected not to participate in a socially-distanced live interview but wanted to share their insights with us. Another interview method incorporated was a real-time interview via Zoom and other video or phone calls to reach friends in a casual virtual setting. The last method we employed was physical interviews with our household members and neighbors who were willing to speak in a more personal and comfortable sharing environment. These three methods enabled us to hear from 11 users from a diverse population and identify patterns and group potential app users based on their eating style and food choice decisions. The four distinct profiles consist of users tired of repeated exposure to similar foods in their daily routine, explorers with great curiosity to discover new foods, those with awareness and accessibility to a fair range of food but only enjoy a limited menu, and those with dietary restrictions seeking a broader menu.

**User Type 1 - Bored, indecisive eaters**

* Task-domain expertise: low
* Expertise with this or similar app: low-medium
* General computer experience: medium
* Motivation to learn: low
* Age: 20+
* Gender: All, though research shows women have higher food sensitivity disgust (FDS) scores than men.
* Occupation(s): Athletes, Fitness Professionals/Trainers, Student, Part-Time Receptionist, Musician
* Experience in cooking: low
* Concern for cost of foods: high
* Frequency of food search: less than 4 times a month/rarely
* Often have difficulty deciding food choices? Yes

**User Type 2 - Food explorers**

* Task-domain expertise: high
* Expertise with this or similar app: medium
* General computer experience: medium-high
* Motivation to learn: high
* Age: 18-mid 50s
* Gender: All
* Occupation(s): YouTuber, Chef, Food Safety Specialist, Student (Casual Foodie), Marketing Coordinator, Software Engineer, Banker, Musician
* Experience in cooking: medium-high
* Concern for cost of foods: high
* Frequency of food search: daily, every other day, or weekly
* Often have difficulty deciding food choices? Yes

**User Type 3 - Picky eaters**

* Task-domain expertise: medium
* Expertise with this or similar app: medium
* General computer experience: all levels
* Motivation to learn: low
* Age: 7+
* Gender: Expected all; female (survey)
* Occupation(s): Student
* Experience in cooking: low-medium
* Concern for cost of foods: low
* Frequency of food search: weekly
* Often have difficulty deciding food choices? Yes

**User Type 4 - Dietary restrictions**

* Task-domain expertise: medium-high
* Expertise with this or similar app: medium-high
* General computer experience: all levels
* Motivation to learn: medium
* Age: 16+
* Gender: All
* Possible occupation(s): Monastics (e.g., Buddhist monk); all full-time professional jobs apply.
* Experience in cooking: medium-high
* Concern for cost of foods: medium
* Frequency of food search: weekly
* Often have difficulty deciding food choices? Yes

**Task Analysis**

★★★ = **often** ★★ = **mediocre** ★ = **seldom**

𓁆𓁆𓁆= **many users** 𓁆𓁆 = **medium users** 𓁆= **few users**

* **Task 1: Explore food options by global cuisines for the first time ★★★**𓁆𓁆𓁆
  + 1. Open the installed FoodieVenture app **★★★** 𓁆𓁆𓁆
  + 2. Create an account and user profile **★★★**𓁆𓁆𓁆
    - 2.1 Create username and password **★★★**𓁆𓁆𓁆
    - 2.2 Enter contact and personal information **★★★**𓁆𓁆𓁆
    - 2.3 Indicate any dietary restrictions **★★**𓁆𓁆
  + 3. Submit profile entries **★★★**𓁆𓁆𓁆
  + 4. Find cuisine of interest **★★★**𓁆𓁆𓁆
    - 4.1 Observe geographic regions of different cuisines **★★★**𓁆𓁆𓁆
      * 4.1.1 Explore map until arriving at a region of interest **★★**𓁆𓁆𓁆
    - 4.2 Find cuisines that match current taste buds **★★★**𓁆𓁆𓁆
      * 4.2.1 Read a brief flavor profile describing primary flavors the cuisine is known for (e.g., spicy, sour,...) **★★★**𓁆𓁆
      * 4.2.2 Learn about a cuisine’s history **★★★**𓁆𓁆
  + 5. Discover new foods to try **★★★**𓁆𓁆𓁆
    - 5.1 Browse the cuisine’s list of foods **★★★**𓁆𓁆𓁆
    - 5.2 View an image and name of each food **★★★**𓁆𓁆𓁆
    - 5.3-a Review # of nearby businesses serving the food and average price range **★★**𓁆𓁆
    - 5.3-b See error message alerting no local businesses serve the food **★★**𓁆𓁆𓁆
      * 5.3.1 Check suggested foods similar to the cuisine’s flavor profile **★★**𓁆𓁆
    - 5.4 Read brief overview and history (if available) of food **★★**𓁆𓁆𓁆
  + 6. Taste the food **★★★**𓁆𓁆𓁆
    - 6.1 Favorite interested foods for convenient future meals **★★★**𓁆𓁆
    - 6.2-a View recipe of a food option**★★★**𓁆𓁆
      * 6.2.1-a Learn how to prepare the food **★★**𓁆𓁆
      * 6.2.1-b Follow steps to cook the food **★★★**𓁆𓁆
      * 6.2.2 Provide personal version of a recipe **★**𓁆𓁆
    - 6.2-b Review nearby businesses offering the food (default sorted closest-farthest) **★★★**𓁆𓁆𓁆
      * 6.2.1 Favorite business for convenient future plans **★★★**𓁆𓁆𓁆
      * 6.2.2 Visit business Yelp profile **★★★**𓁆𓁆
      * 6.2.3-a Order food **★★★**𓁆𓁆
      * 6.2.3-b Make a reservation or join the waitlist **★★**𓁆𓁆
      * 6.4 Visit business **★★**𓁆𓁆
* **Task 2: Find food options for new dietary needs as an existing user** ★★★𓁆𓁆
  + 1. Edit user profile **★★**𓁆
    - 1.1 Open app **★★★**𓁆𓁆
    - 1.2 Add or update dietary restrictions **★**𓁆
  + 2. Use “Food Generator” for personalized matches **★★★**𓁆𓁆
    - 2.1 Choose preferred flavor profiles at the moment **★★★**𓁆𓁆𓁆
    - 2.2 Indicate eating goals (e.g., healthy weight loss meal, medical condition), if applicable **★★**𓁆
    - 2.3 Submit answers to survey questions **★★★**𓁆𓁆𓁆
  + 3. Observe results generated **★★★**𓁆𓁆𓁆
    - 3.1 Read brief descriptions of top food recommended **★★**𓁆𓁆
    - 3.2 Learn more about a specific food **★★**𓁆𓁆
      * 3.2.1 Look through photos of the food **★★★**𓁆𓁆
      * 3.2.2 Read through other criteria that the food might satisfy **★★★**𓁆
    - 3.3 Option to save specific food suggestions for trying later **★★★**𓁆
  + 4. Taste the food **★★★**𓁆𓁆𓁆
    - 6.2-a View recipe of a food option **★★★**𓁆𓁆
    - 6.2-b Review nearby businesses offering the food (default sorted closest-farthest) **★★**𓁆𓁆
* **Task 3: Search for foods based on current mood ★★★**𓁆𓁆
  + 1. Open app **★★★** 𓁆𓁆𓁆
  + 2. Generate food options to try **★★★**𓁆𓁆𓁆
    - 2.1 Complete quiz **★★★**𓁆𓁆𓁆
      * 2.1.1-a Answer all questions to reveal most suitable foods **★★**𓁆
      * 2.1.1-b Skip at least one or at most two questions **★★★**𓁆𓁆
      * 2.2 Indicate **mood** at the moment: happy, sad, tired, anxious, angry, disgusted, surprised **★★★**𓁆𓁆𓁆
      * 2.3 Indicate ideal **flavor**(s): spicy, sweet, sour, bitter, salty, or “umami”**★★★**𓁆𓁆𓁆
      * 2.4 Indicate ideal **texture**(s): hot, cold, juicy, creamy, liquid, crispy, soft, tender, cakey **★★**𓁆𓁆
      * 2.5 Indicate ideal **portion**: appetizer/snack/side/meal/feast **★★★**𓁆𓁆𓁆
  + 3. Discover recommended foods dependent on mood **★★★**𓁆𓁆𓁆
    - 3.1 View findings from quiz **★★★**𓁆𓁆
      * 3.1.1 Learn about possible effects of mood on taste **★★★**𓁆𓁆
      * 3.2.2 Check best ingredients to include in upcoming meal **★★**𓁆𓁆
    - 3.2 Browse food recommendations **★★★**𓁆𓁆𓁆
    - 3.3 View an image and name of each suggested food **★★★**𓁆𓁆
    - 3.4 Review # of nearby businesses serving the food and average price range **★★**𓁆𓁆
    - 3.5 Read brief overview and history (if available) of food **★★**𓁆𓁆𓁆
  + 4. Taste the food **★★★**𓁆𓁆𓁆
    - 4.1 Favorite interested foods for convenient future meals **★★★**𓁆𓁆
    - 4.2-a View recipe of a food option **★**𓁆𓁆
      * 4.2.1-a Learn how to prepare the food **★★**𓁆𓁆𓁆
      * 4.2.1-b Follow steps to cook the food **★★**𓁆𓁆
      * 4.2.2 Provide personal version of a recipe **★**𓁆
    - 4.2-b Review nearby businesses offering the food (default sorted closest-farthest) **★★★**𓁆𓁆
      * 4.2.1 Favorite business for convenient future plans **★★★**𓁆𓁆𓁆
      * 4.2.2 Visit business Yelp profile **★★★**𓁆𓁆
      * 4.2.3-a Order food **★★★**𓁆𓁆
      * 4.2.3-b Make a reservation or join the waitlist **★★★**𓁆𓁆𓁆
      * 4.2.4 Visit business**★★**𓁆𓁆𓁆
  + 5. Restart the quiz for new suggestions **★★**𓁆𓁆
* **Task 4: View user history ★★★**𓁆𓁆
  + 1. Review user activity on the app **★★★**𓁆𓁆
    - 1.1. Revisit specific foods previously viewed **★★**𓁆𓁆
      * 1.1-a Sort by most recent date viewed **★★**𓁆𓁆
      * 1.1-b Sort by oldest to newest date viewed **★**𓁆
      * 1.2-c Filter by mood **★★**𓁆𓁆
      * 1.2-d Filter by cuisine **★★**𓁆𓁆
      * 1.2-e Filter by flavor profile **★★**𓁆𓁆
      * 1.2-f Filter by portion **★★★**𓁆𓁆𓁆
    - 1.2. Revisit liked/commented/shared content **★★★**𓁆𓁆
    - 1.3 Track recorded moods over time **★★**𓁆𓁆
* **Task 5: Review food wishlist for convenience ★★**𓁆𓁆
  + 1. Go to food wishlist **★★**𓁆
  + 2.-a Review saved food choices **★★**𓁆𓁆𓁆
    - 2.1 Browse specific foods **★★**𓁆𓁆𓁆
      * 2.1.1 Explore dine-in or dine-out options **★★★**𓁆𓁆𓁆
        + 2.1.1-a Read recipe to dine-in with the food **★★**𓁆𓁆𓁆
        + 2.1.1-b Review nearby businesses to dine-out **★★★**𓁆𓁆𓁆
      * 2.1.2 Look through similar foods that are recommended **★★**𓁆
  + 2.-b Review saved businesses
    - 2.1 Visit business Yelp profile **★★★**𓁆𓁆
    - 2.2-a Order food **★★★**𓁆𓁆
    - 2.2-b Make a reservation or join the waitlist **★★★**𓁆𓁆𓁆
  + 3. Refine wishlist **★★**𓁆𓁆
    - 3.3.1 Remove a saved food **★**𓁆𓁆
    - 3.3.2 Start a new search for more foods to add to wishlist **★★★**𓁆𓁆𓁆
* **Task 6: Sharing content with others ★★**𓁆𓁆
  + 1. Select a specific food to share **★★★**𓁆𓁆𓁆
    - 1.-a Select or provide personal recipe **★★**𓁆𓁆𓁆
    - 1.-b Showcase cooked or ordered food photos **★★★**𓁆𓁆𓁆
    - 1.-c Input experience **★★★**𓁆𓁆𓁆
  + 2. Select a share option **★★**𓁆
    - 2.-a Share to other social media platforms **★★**𓁆𓁆
    - 2.-b Share to Foodie Community
  + 3. View other foodies’ shared content **★★**𓁆𓁆𓁆
  + 4. Interact with other foodies’ shared content **★**𓁆
    - 4.1 Like content **★★★**𓁆𓁆𓁆
    - 4.2 Comment on content **★★**𓁆𓁆
    - 4.3 Tag other foodies **★★**𓁆𓁆

**Conceptual Analysis**

| **Objects** | **Attributes** | **Operations** |
| --- | --- | --- |
| Account | Username, password, e-mail, phone #, display preference, language, privacy policy, support phone #, support email address, questions, answers | Log in, create account, edit security and personal contact information, change UI theme, set language, review privacy policy, delete account, contact customer support, check frequently asked questions + answers |
| Foodie Profile | Name, birthday, age, gender, country, user photo, dietary restrictions, type of foodie, foodie circle | Edit (attributes), change visibility of dietary restrictions, view friends with similar interests, remove friend |
| Food Generator (Quiz) | Quiz questions, quiz answers, flavor profile, food texture, portion size, mood, food results | Select answer, change answer, view recommended foods, check suggested ingredients, explore mood’s effect on taste |
| Cuisine Finder | Geographic region, cuisine name, flavor profiles common to each cuisine, cuisine history, foods, businesses | Browse cuisines, read about a cuisine’s history, discover foods most suitable for how user currently feels, review nearby business offering the food |
| Foodie Community | Foodie username, shared food photo, shared recipe, activity date + time | Like, comment, write, add user to foodie circle, tag other user(s), view foods made or ordered by other users, read different versions of a recipe, share with other user(s) or social media platforms |
| Food | Name, description, flavor profile, food texture, portion size, cuisine, photo, recipe, businesses, average price range, dietary restriction | Read food overview, view recipe, view nearby businesses, order food, check price range of food, add to wishlist, filter via attributes |
| History | Name + photo of viewed food, recorded date of activity, portion size, flavor profile, cuisine, recorded mood | Browse food history, sort by date, filter by cuisine/flavor/portion/mood, track recent moods |
| Recipe | Food name, foodie username, ingredients, ingredient quantities, chronological instructions, estimate cook time | Look at ingredients and quantity of each needed, understand time to prepare, follow the steps to prepare the food, share with foodie circle/foodie community/other social media platforms, add new recipe |
| Business | Name, location, hours, rating, phone, website, photos, updates, overview, questions, answers, customer reviews | View the business’s Yelp page: (get directions, check operating schedule, order food, call to ask a question or make a reservation, join waitlist, write a review, add photo, view photos, share business page or customer review, read about the business and/or customer reviews, save business, ask or answer the community’s questions) |
| Foodie Coach | Food alerts, rewards unlocked, ingredient alert | Review food suggestions, view local business offers, read about a food recall |
| Food Dictionary | Collection of <Food> | Browse foods, add to wishlist |
| Wishlist | Food, Business | Browse favorite foods, browse favorite businesses, remove foods or businesses |
| Rewards | Foodie username, expiration date, date redeemed, business name, achieved ingredients, coupon code, status, restrictions | View earned coupons, review used or gift coupons, unlock new set of foods, redeem coupons, share coupons with foodie circle, send as gift to foodie circle |