

Design III 'Sprint Challenge

Collective Innovation Best Practice: Food Allergy & Dietary Assistant App

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Introduction

Our team sought to develop an application concept assisting consumers in managing food allergies and preferences while enabling restaurants to better understand customer needs. I served as team leader, guiding research, ideation, prototyping and process.

Role

As team leader, I enabled progress by directing research, facilitating ideation workshops, managing prototypes, and encouraging ongoing constructive debate. My leadership focused on promoting inclusive communication, nurturing diverse perspectives, and translating insights into solution-oriented action. I spearheaded user studies uncovering pain points around food preferences. Facilitating technique sessions, I bridged findings with imaginative concepts aligned to consumer and business needs. Overseeing iterative prototypes, I evolved designs through user feedback. By fostering participative problem-solving, I expanded soft skills crucial for uniting multifaceted stakeholders towards a shared vision flexible enough to accommodate uniqueness yet coherent enough to activate tangible innovation.

Overview

Our team sought to develop an app concept that would help consumers manage dietary restrictions while providing restaurants valuable customer insights to enable more tailored food offerings. I served as project leader across research, ideation, prototyping, and process coordination efforts.

Problem statement

Consumers need assistance identifying menu items and grocery products aligned to dietary issues like allergies or personal preferences. Meanwhile company lack aggregated patron data revealing fulfilment gaps around specialized requests and data from customers.

Solutions

The proposed application concept would enable customers to easily discover and order items compatible with entered allergy information and stated preferences through an engaging interface. For restaurants, aggregated patron data dashboards would provide population ordering behaviour insights to guide potential menu innovations attuned to undersupplied patron needs.

Objective

1. Assist users in conveniently finding suitable dining and grocery options.
2. Provide restaurants actionable customer analytics to expand specialty offerings.
3. Intuitively balance business and consumer data transparency needs
4. Validate value proposition through user research and iterative prototyping.

Design Sprint Process:

Empathy Phase

Stakeholder Map

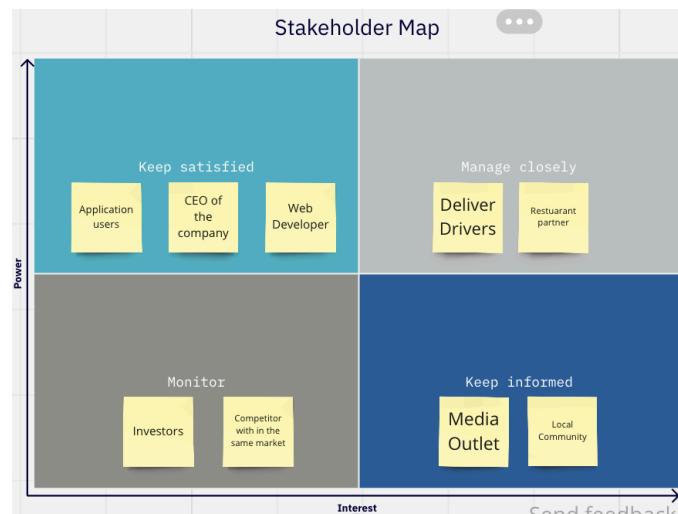


Fig 1. Stakeholder Map

The stakeholder map categorized key players into quadrants based on their power/influence in the project and their level of interest.

In the “Keep Satisfied” box with high power but low interest, App Users who needs central so keeping them satisfied with an intuitive, useful app is critical. Company CEO has high decision-making power yet lower engagement in day-to-day activities and Web Developers that in charge of technical build yet focused narrowly on that role. In “Manage Closely” with high power and interest, Delivery Drivers who are key partners requiring coordination as customer touchpoints and Restaurant Partners who are Collaborators integrating app features with own systems and offerings.

In “Monitor” with low power but interest, Investors who Provide financial backing, so app success impacts their returns and Competitors who don’t directly influence us, but app differentiation is important. Finally, in “Keep Informed” with low power and interest, Media Outlets that could drive general awareness if interested and Local Communities that can indirect beneficiaries from economic impacts if app succeeds.

User Journey map

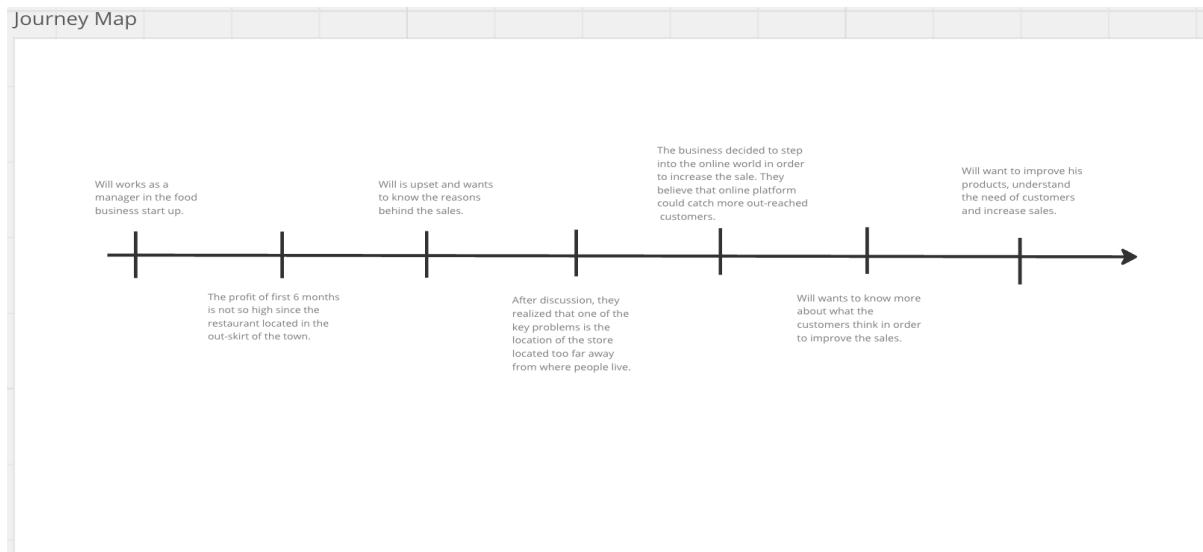


Fig 2. User journey map

The user journey map outlines the story of Will, the manager of a struggling food starts up facing low profits in its first 6 months since opening a remotely located restaurant. Upset by poor sales, Will worked with the team to diagnose their out-of-town placement as the primary culprit in failing to attract sufficient in-person customers. Seeking to expand their reach, the business decided to establish an online platform enabling delivery and order

pickup. Will realized that this digital channel also presented an opportunity to capture customer feedback more easily on preferences and menu experiences. His objectives evolved to leverage such insights by using direct customer input to systematically improve offerings in hopes of boosting satisfaction, meeting previously unmet needs, and ultimately driving higher sales revenue. In summary, the journey map depicts Will moving from confronting disappointing financial results to envisioning an integrated online customer experience that supports both digital access and data-driven menu enhancements guided by user opinions and spending trends.

Empathy map

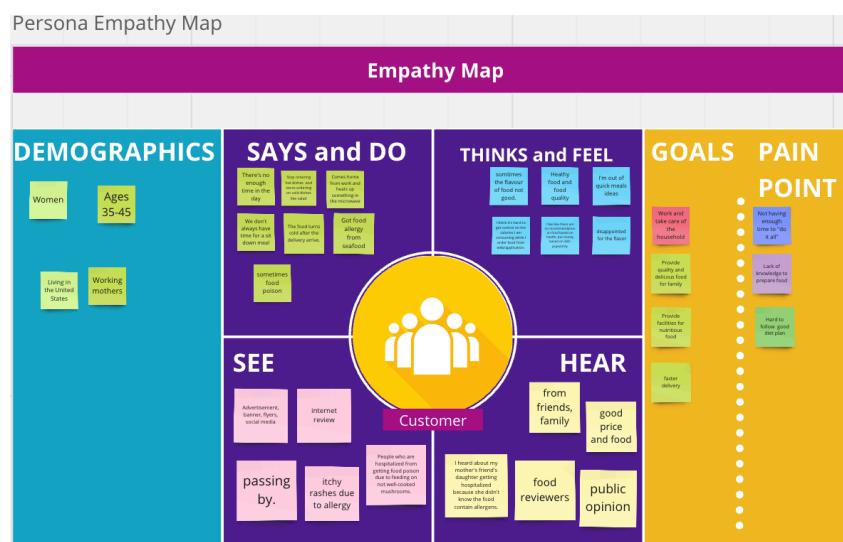


Fig 3. Empathy map

Define Phase

Persona and POV

Selection of Persona and POV			
Will			
Persona 5 Demographics Name - Will Age - 40 Role - Food Company Manager Gender - male		Behaviors & Habits Will is a manager in a Food company. He does not have time to cook and pays attention to the quality of food.	POV: The food companies want to understand customers' thought because they want to increase the sale.
Pain Points & Frustrations Will is stressed because the sales of the food company was dropping and less customers are ordering. The staffs do not know the causes behind this problem.		Needs & Goals Will needs to understand the root of the problem about the decrease in sales and getting fewer customers. His goal is to learn about the problem customers are having and improve sales.	

Fig 4. Will's persona and Point Of view

The persona we defined is Will, a 40-year-old male working as a food company manager. As a busy professional without much time to cook, Will pays close attention to food quality. However, he has been stressed due to decreasing sales and fewer customers ordering from the struggling start-up he manages. Unclear on the root causes behind these business performance challenges; Will's needs and goals revolve around better understanding customer perspectives to diagnose issues in the ordering experience or offerings. By gaining insights into problems customers are facing, Will aims to drive changes, such as menu improvements, that could ultimately increase sales and revenues for the food company. This aligns to our point of view that food companies want to understand customer thoughts according to raise sales.

Ideate Phase

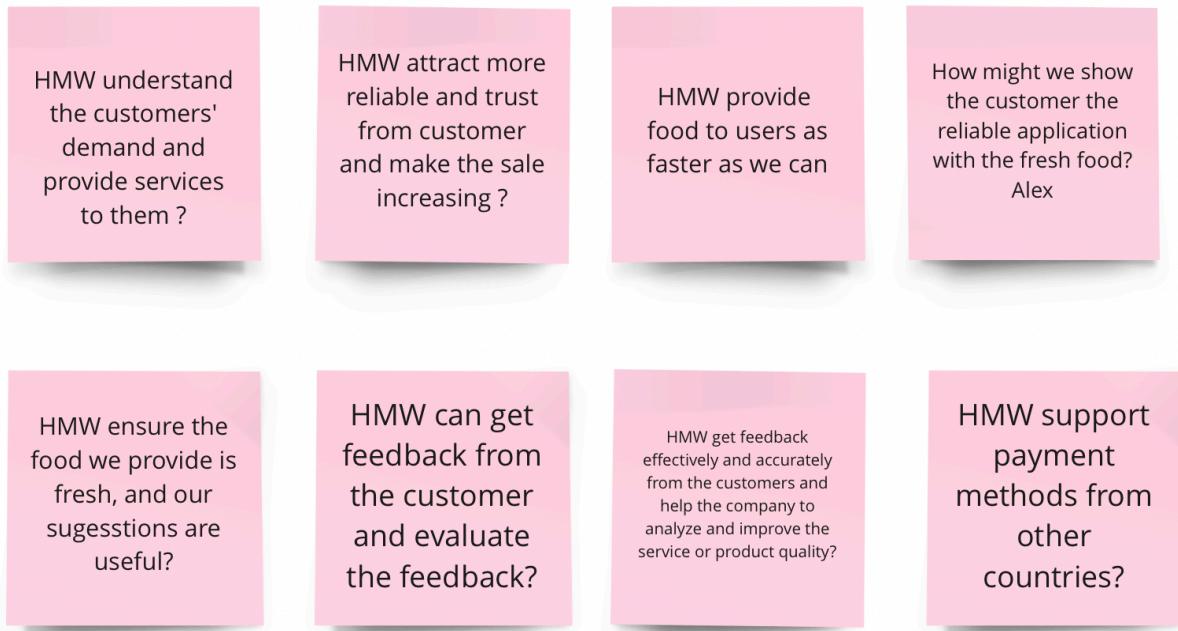


Fig 5. Here are some examples of HMW questions to a spark idea.

6-3-5 Sketching templates

1. 6-3-5 Method – Thant Zin Oo

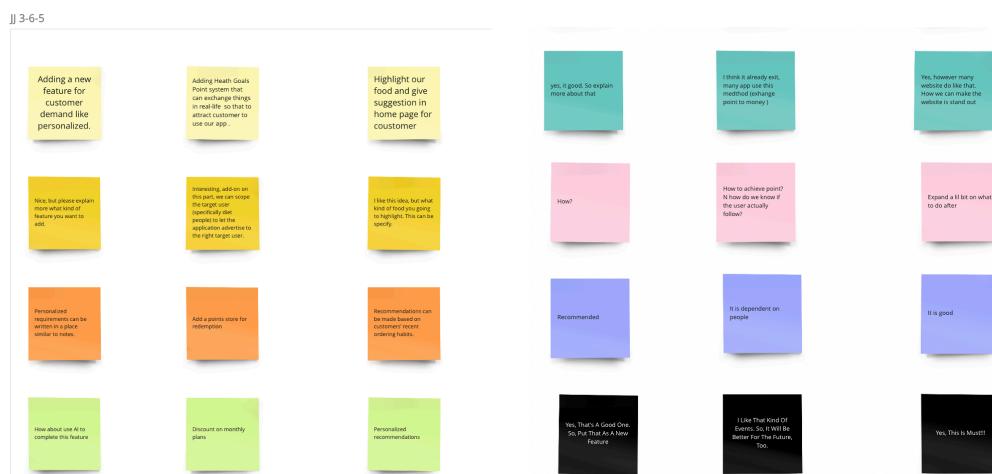


Fig 6. 6-3-5 Method

Storyboard



Fig 7. Story Board

The storyboard depicts a struggling food company that decides to analyse customer feedback to diagnose issues impacting their declining sales. It opens with a manager requesting insights into the drop in revenue. The staff propose collecting structured customer input online then analysing it in a report after a few months. The subsequent feedback highlights complaints around bland flavour, texture issues, and small portions. After additional processing, the data is categorized across key attributes – appearance, portion size, flavours, texture, taste. This informs their SWOT analysis on strengths like pricing and weaknesses around flavour options that guides targeted changes. Months after modifying offerings based on the report, the manager happily announces that sales and customers have been restored. The sequence illustrates how actively listening and responding to user perspectives through data analytics enabled the business to systematically address shortcomings within their offerings and strategy.

Prototype Phase

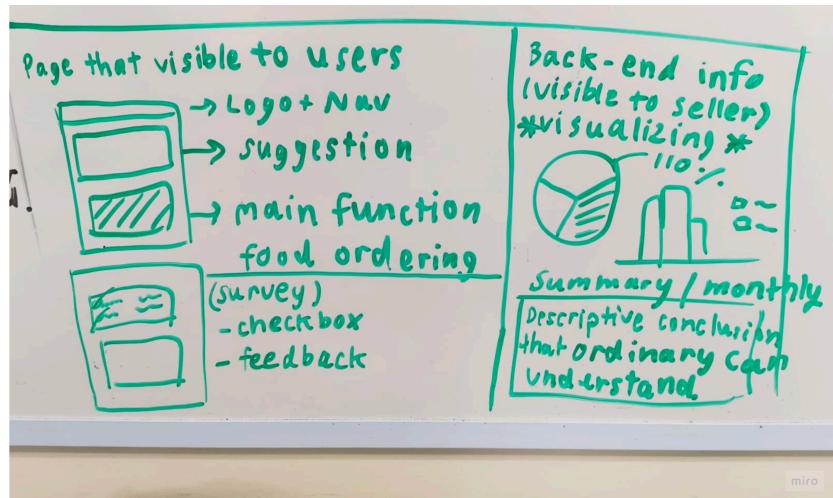


Fig 8. Zen voting of Sketch Idea

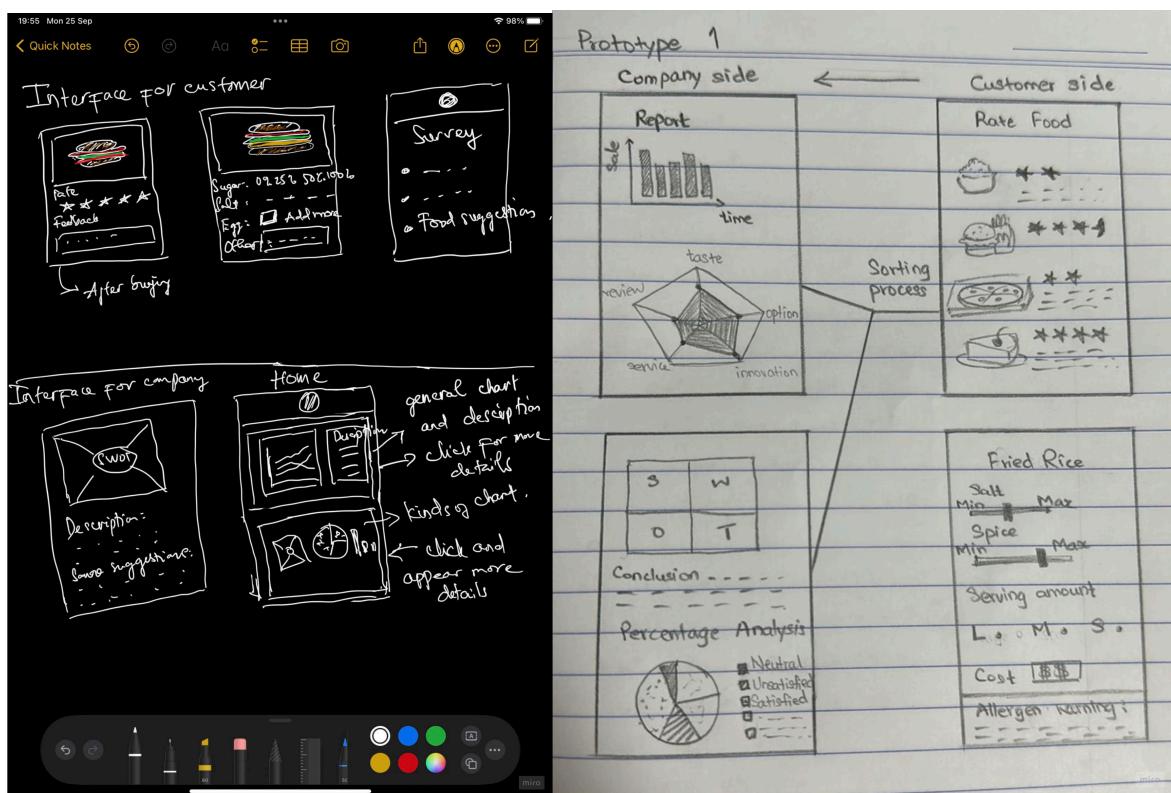


Fig 9. Paper Prototype

We began by sketching our ideas on paper based on the persona POVs and top storyboard. Testing revealed the need for additional features like expanded customer and company options which are survey, data analyze and food options.

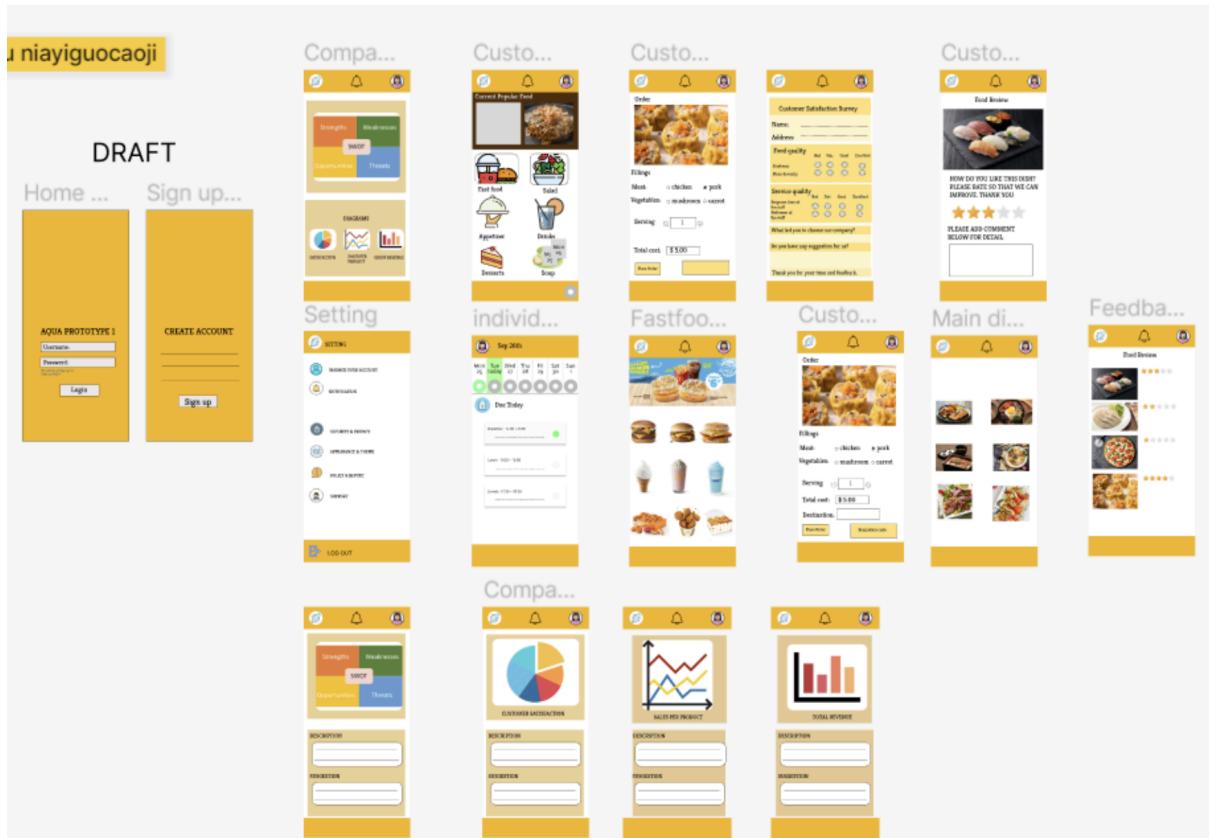


Fig 10. Mid-fi Figma Prototype

We created a digital prototype on MIRO to represent app screens and flows for more feedback. Key add-ons were a 24/7 chatbot providing self-service options and get feedback from stakeholder.

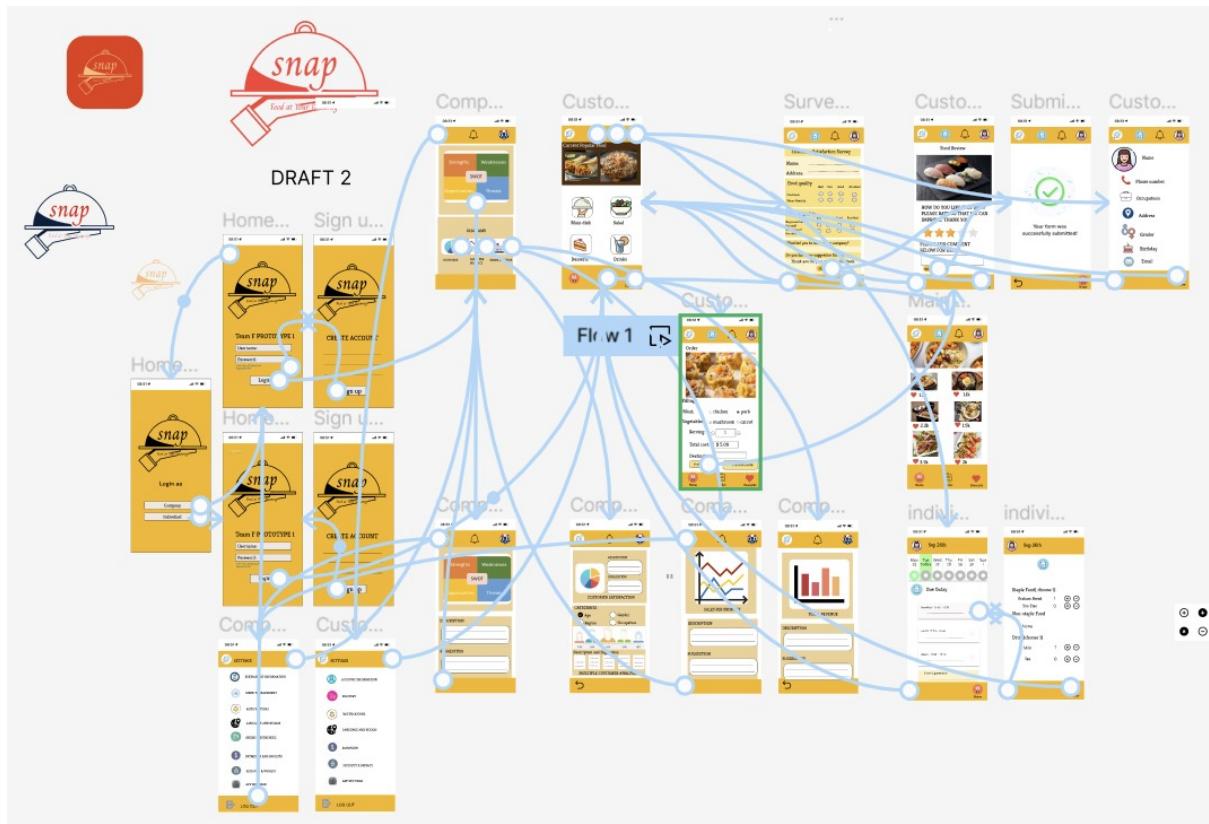


Fig 11. Final prototype with testing

Our interactive wireframe prototype incorporated feedback by showing appointment history details and user report archives for easy access and review.

Testing and Iteration

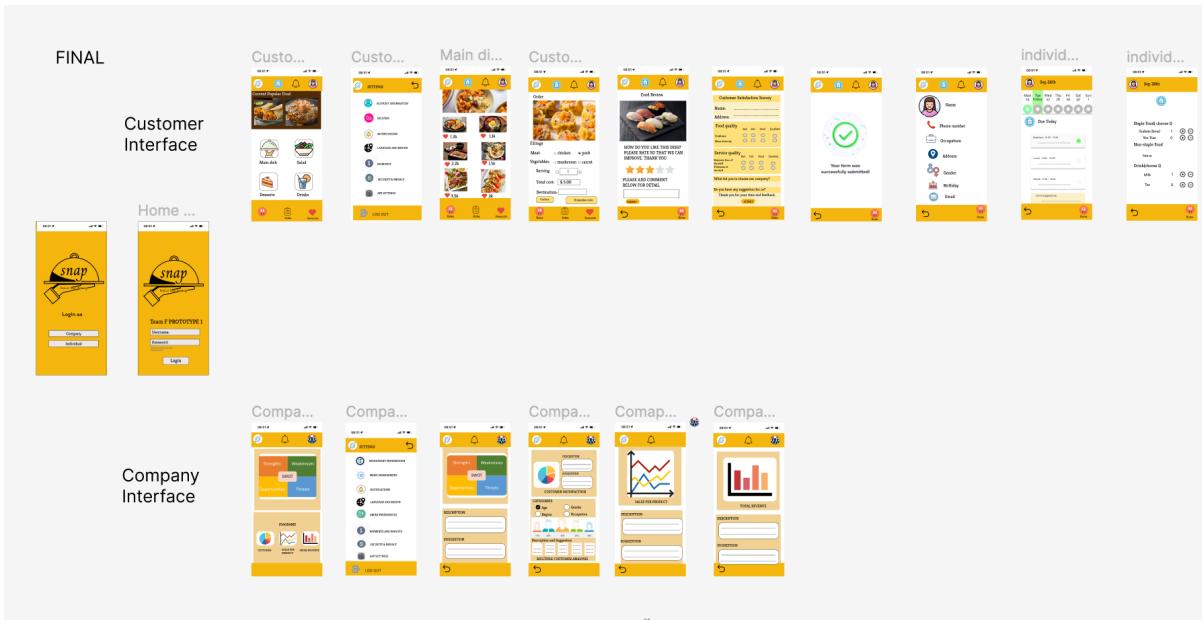


Fig 12. Final Clickable Hi-Fi Prototype with Customer and Company views

After initial paper prototyping, users requested more details and options in areas like ordering, company settings, and distinguishing between customer and business flows. This drove additions like individualized meal plans, menu recommendation popups, modified order pages and multiple business analytics views. Mid-fidelity Figma testing yielded feedback to incorporate user location data for personalized insights while linking innovations to best practices to educate audiences on design decisions.

This spurred further changes including advanced customer segmentation by attributes like age and geography, deeper logic connecting modules like the feedback surveys to reporting dashboards, and supplemental models illustrating connections to research on effective features. Across both validation rounds, feedback around completeness, specificity and coherent user experiences triggered incremental refinements that evolved the prototypes towards comprehensive design systems suiting diverse readership needs while maintaining core utility.

Feature interaction

User Interaction

The customer-facing application provides an intuitive journey for discovering and ordering suitable menu items. On the homepage, users can browse popular dishes and refine by categories like mains or desserts. Their profile allows establishing preferences and restrictions for personalized recommendations. As users select menu items, they can provide feedback ratings to continually improve suggestions. After ordering, customers can take more extensive surveys on their experiences while their individual order history provides reference for future decisions.

Business Interaction

For restaurants, the platform focuses on gathering and synthesizing customer behaviours to inform menu innovations. The SWOT dashboard gives high-level insights on strengths like pricing as well as areas for improvement. Aggregated user profiles and order trends reveal target customer segments to consider tailoring to. The customer satisfaction metrics quantify feedback themes to address, such as flavour issues. Analysis reports translate patterns into actions like emphasizing certain dishes. This enables data-driven decisions around optimal recipe mixes and inventory volumes for delighting customers.

In summary, an intelligent recommendation system suits user needs while aggregation of their collective activities empowers restaurants to actively listen and respond based on evidence.

Conclusion

Through a structured design process, we developed an app concept connecting consumers with Food Company. Customers can discover dishes matching dietary needs and preferences. Company can analyse aggregated ordering data for menu innovation attuned to patron tastes.

Despite early disagreements, we stuck to core principles - research informing decisions, participation across activities, and focusing on human impacts above all. This upheld ambition while uniting viewpoints into an inclusive vision flexible enough to empower uniqueness yet cohesive enough to nurture relationships. The resulting application proves that methodological design safely navigates teams from confusion to clarity, conceived innovations to impactful solutions.

Link

- **Miro**
- https://miro.com/app/board/uXjVMiRqPHM=/?share_link_id=355477281932
- **Figma**
- <https://www.figma.com/file/wtIYhkFTY1E25vZMk3vBIW/Team-F?type=design&node-id=0-1&mode=design>
- **Google Doc**
- <https://docs.google.com/document/d/1YU-jRlxfaTA37EJglb8uoM2pRx5HBQ8tpsbze5ocrcE/edit>