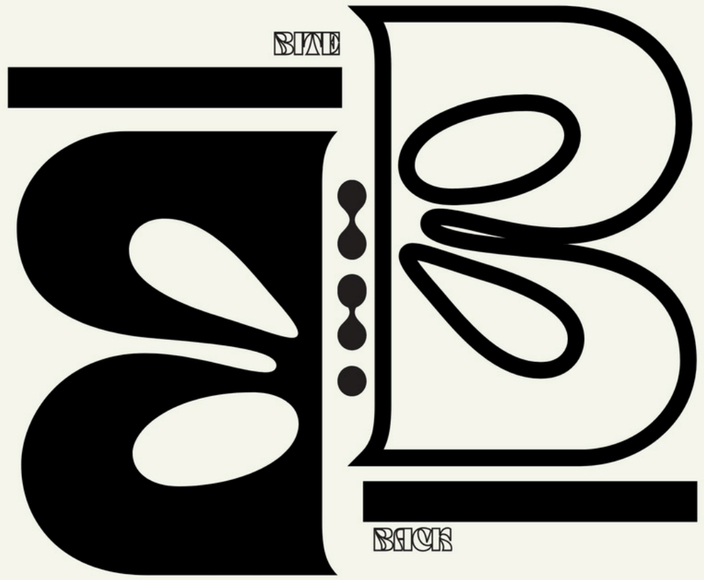
CS152: HUMAN COMPUTER INTERACTION

PROJECT PRESENTATION



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CONTENT

Motivation

Identifying The Problem

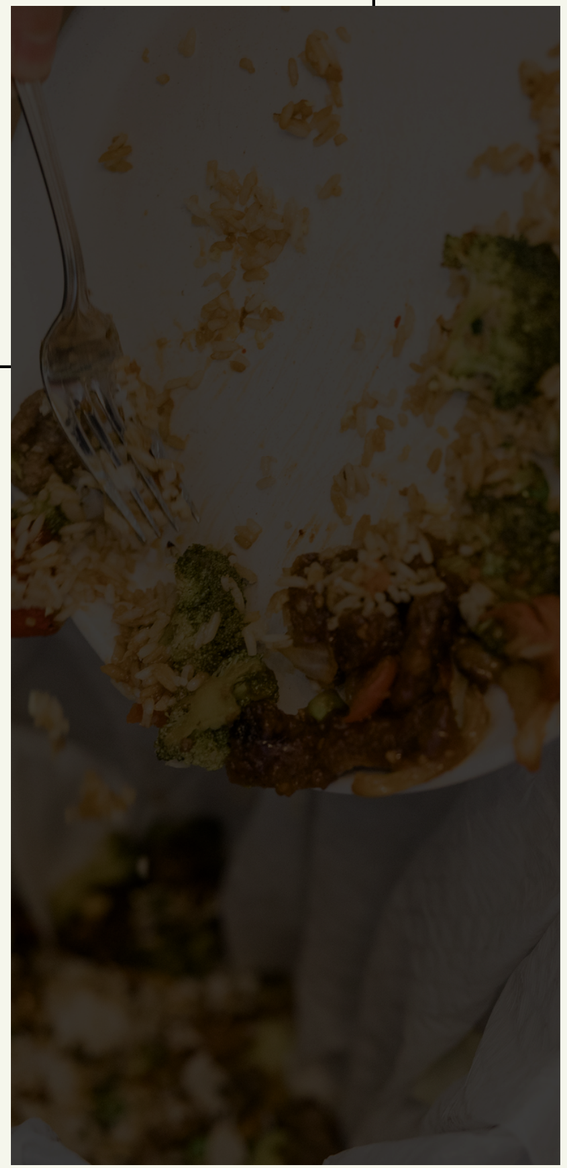
Prototype Design

Evaluation

Conclusion

WHY: THE MOTIVATION. WHAT PROBLEM DID WE WANT TO SOLVE?

Global food waste is a major issue. It accounts for 8–10% of global landfill greenhouse gas emissions and 1.05 billion tons of food loss, or 132 kg per person in 2022. 60% of food waste comes from households. Food services and retail rank second (28%). Metro Manila discards 2,175 tons of food daily. This waste harms the ecosystem and hinders food access.

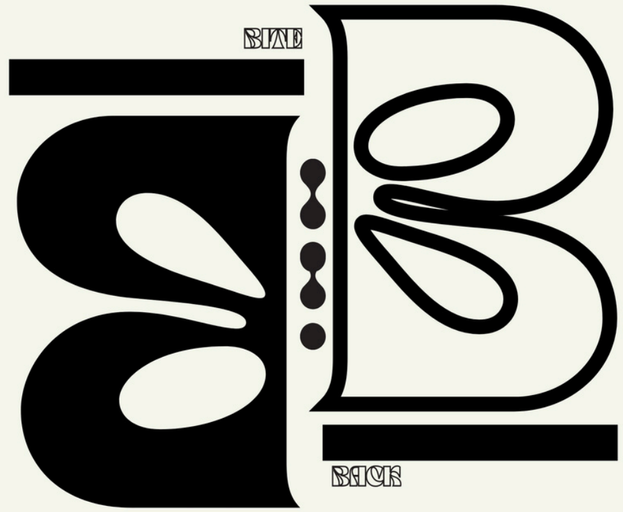


HOW: IDENTIFYING THE PROBLEM

How did we identify the problem?

Based on the Sustainable Development Goals 2 (Zero Hunger) and 12 (Responsible Consumption and Production) of the United Nations. The waste of food has emerged as a significant issue in several countries. If this issue is not resolved, it is anticipated that more than 300 million people will be at risk of experiencing hunger, and the increase in the cost of food is not helping the situation. This is a significant issue, and we need to begin taking the initiative to search for sustainable solutions to assist in finding a solution to this.

BITEBACK PROTOTYPE



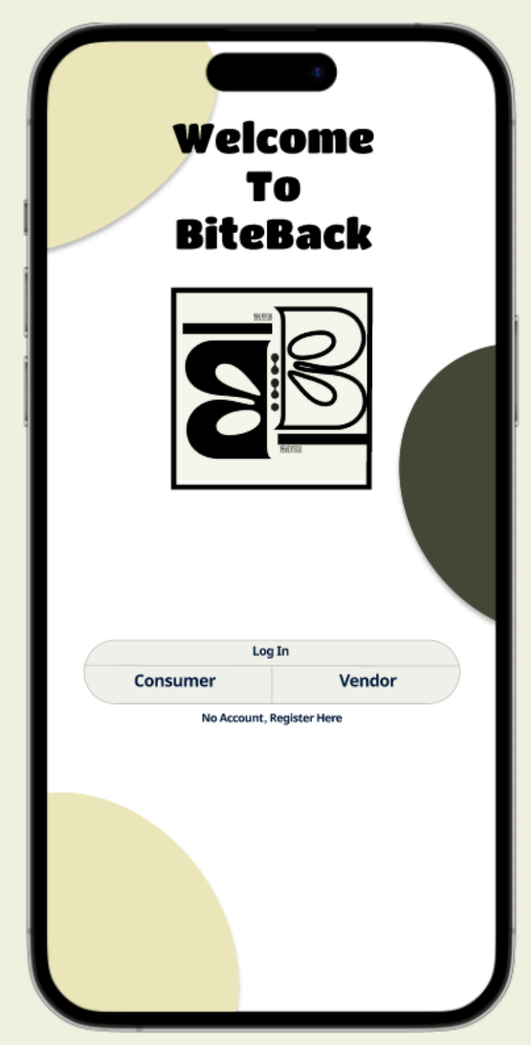
BREIF DESCRIPTION

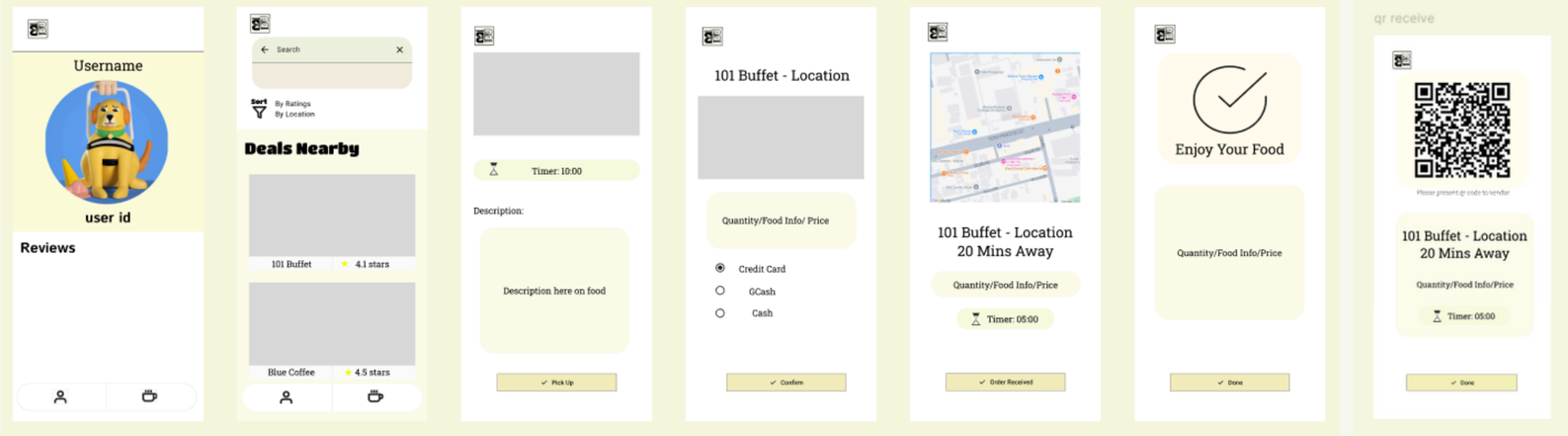
BiteBack helps food service and beverage companies redistribute surplus food. This software helps users find cheap food, especially from local vendors. The idea will allow business owners to make money from waste food and give neighborhood residents affordable and accessible food.

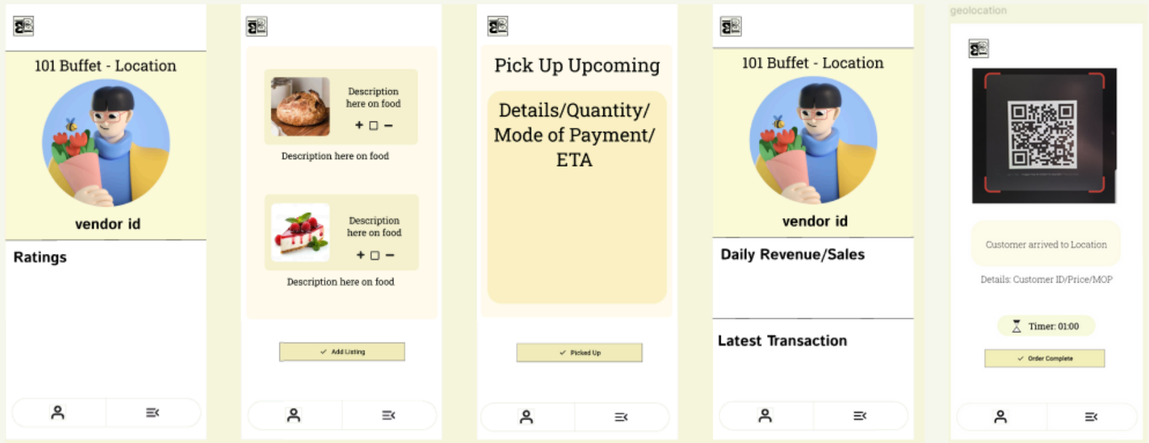
PROTOTYPE OBJECTIVE

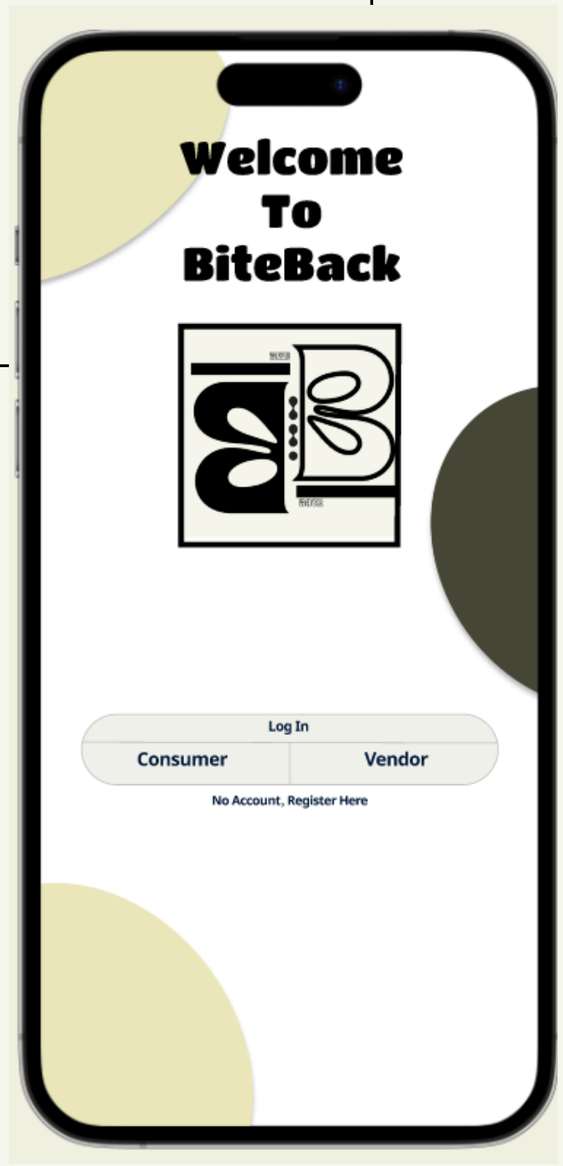
The prototype is used to gauge the usability of the the application, focusing on the users' and vendors' perspective and helping them with our main objective of reducing food waste

PROTOTYPE DESIGN









FEATURES

Order Confirmation

Geolocation

Food Waste Reduction

Ecommerce Tracking

EVALUATION PLAN

PREPARE

The group will prepare the prototype link, the survey for participants, and the schedule indicating the availability of selected participants.

LAUNCH

The prototype link will facilitate participant interaction with the prototype, thereby mitigating potential bias in the evaluation process.

EVALUATE

To evaluate the prototype, team members will monitor the process and provide instructions to the participants. The survey will contribute to the evaluation process, alongside the Heuristics Evaluation.

DISCUSSION

Upon collecting the results, the team will engage in a discussion regarding the results that were collected during the evaluation

CONCLUSION

The team will provide their final thoughts and critique.
and supply responses indicating areas where the prototype may require enhancements

METHOD OF EVALUATION

USABILITY SPECIFICATIONS

Evaluates usability through tasks performed by participants. Task completion times and ease of use are assessed to identify usability flaws.

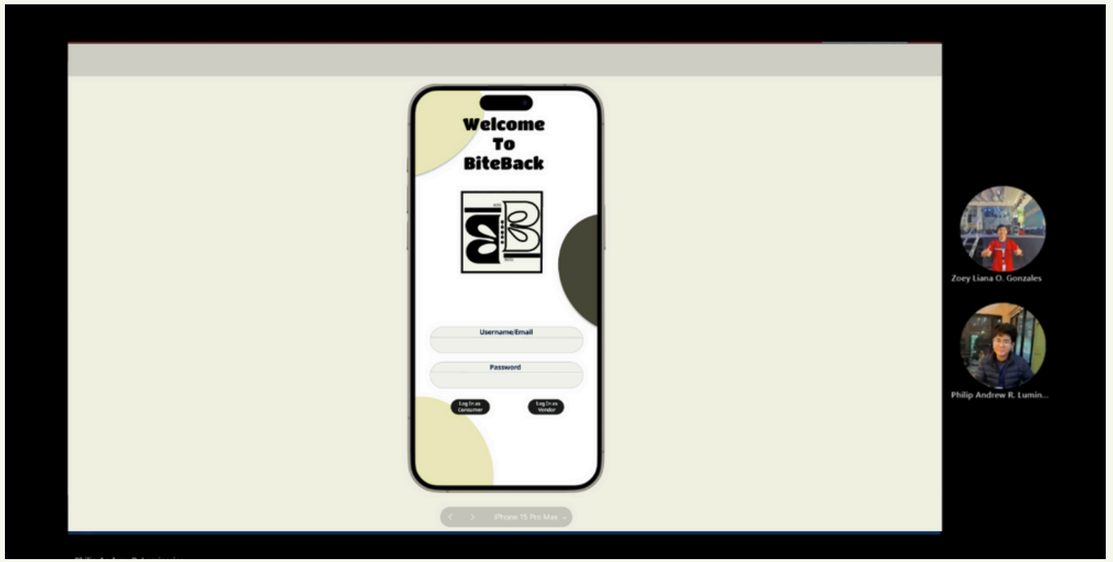
HEURISTIC EVALUATION

Evaluates UX design based on industrial-standard usability principles, quickly identifying potential improvements or issues.

PARTICIPANT SURVEY AND FEEDBACK

Gathers quantitative data (via a 5-point Likert scale) and qualitative feedback to objectively assess user satisfaction and identify specific areas needing improvement.

ONLINE TESTING WITH PARTICIPANTS (MICROSOFT TEAMS CALL)



USABILITY SPECIFICATION

BROWSING & RESERVATION

1 min 12 sec

Highly Acceptable

Participants could locate a deal, reserve, and pay in just over a minute (1 min 12 sec), beating our ≤ 90 s target thanks to the clear card-based layout.

VENDOR LISTING

21 sec

Highly Acceptable

Vendors uploaded surplus items in only 21 sec, well inside the ≤ 30 s goal, aided by the single “Add Listing” card.

PICK-UP TASK

3 min 48 sec

Marginally Acceptable

Imprecise map pins and no QR stretched the hand-off to 3 min 48 sec. This drove the decision to add precise geolocation and QR verification.

OBSERVATION

PICK-UP HANDOFF FRICTION

The collection point experienced delays as participants were uncertain due to the imprecision of the map pin and the absence of a QR token, resulting in an extended pick-up time.

SMOOTH CORE NAVIGATION

Users, irrespective of their technological proficiency, were able to navigate deals, make reservations, and vendors could incorporate listings independently, suggesting an effective structure of information.

LOW ASSISTANCE NEEDED

Apart from the pick-up step, participants rarely requested clarification, suggesting most icons and labels were self-explanatory after the recent button-renaming pass.

HEURISTICS EVALUATION

HOW WELL DID THE PROTOTYPE PERFORM USING HEURISTIC EVALUATION?

Most of Nielsen's heuristics were met by the BiteBack prototype, but users was lacking clear guidance when QR scans or map pins were ineffective. BiteBack's remote pilot demonstrates its solid workflows: consumers complete reservations in under one minute, merchants create listings in under 30 seconds, and satisfaction scores (SUS = 84) are comfortably within the “very good” range. The main bottleneck, imprecise geolocation and the lack of a QR hand-off, has been discovered and a remedial plan created. The average pick-up time is 3 minutes and 48 seconds. BiteBack is well-positioned to accomplish its usability goals and create an efficient, sustainable food-rescue experience with these targeted improvements.

AVERAGE MEAN OF THE SURVEY QUESTIONS

4.36

The survey results demonstrate that BiteBack is positioned within the “Acceptable” to “Highly Acceptable” range, confirming that users perceive the design as effective. However, there remains an opportunity to refine the pick-up flow to achieve an even higher rating.

FEEDBACKS

FEEDBACK I

“The core flows exhibit a level of smoothness; however, the pick-up process appeared sluggish due to the map pin inaccurately placing me.”

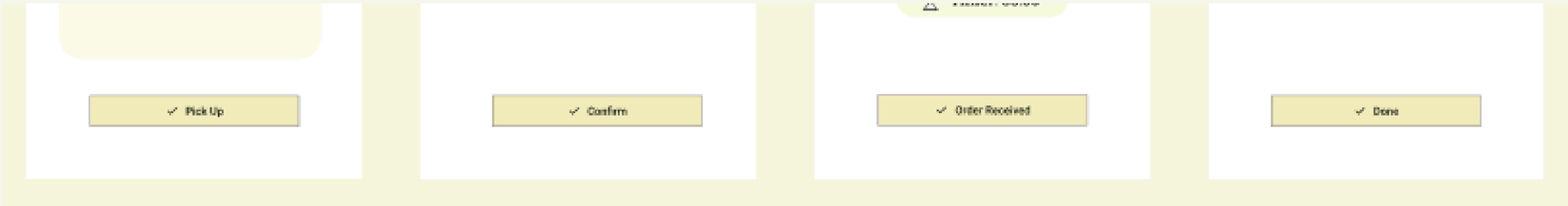
FEEDBACK 2

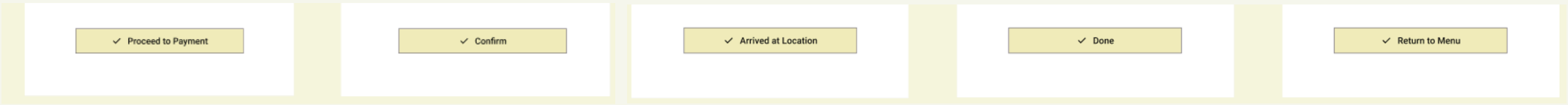
I had no trouble navigating as the user interface is well-organized.

FEEDBACK 3

Implementing a retry mechanism or providing a manual code entry option would be beneficial in the event of a QR scan failure.

ALTERATIONS

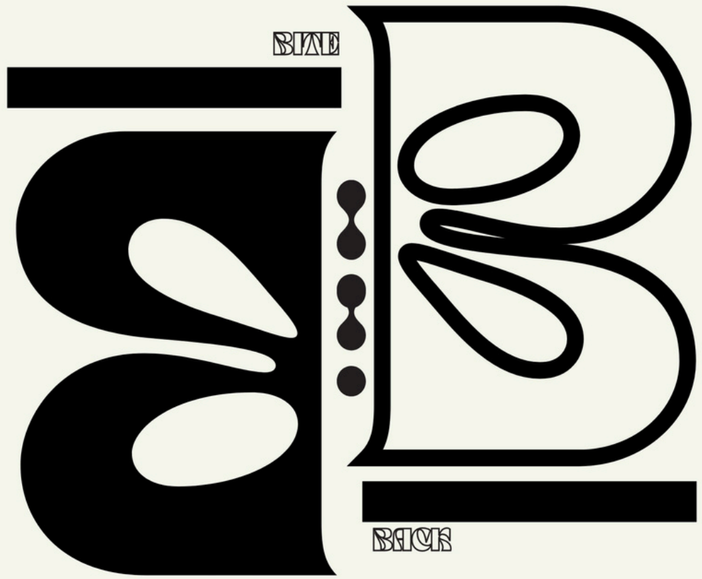




CONCLUSIONS: IF YOU HAD MORE TIME, WHAT WOULD YOU DO NEXT?

In a scenario in which we had more time, we would implement other functions, such as monitoring the impact that the food that was saved has had on the overall environment. In addition, we would increase testing by including genuine sellers and suppliers in order to collect their input, which would enable us to make improvements to the application.

THANK YOU FOR LISTENING



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