Project Write Up

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****Important Note** You must *disable cross origin restrictions* on your browser for the Items to show up in the order bar, this is a browser restriction due to the inner menu being an iFrame.**

1. Requirements

Our system was designed so people could quickly and efficiently order food. This system allows for customers to order food for either a takeout or a sitdown experience in the restaurant. The system allows users to select food based on images that they see. This allows users who are unfamiliar with Japanese cuisine to order based on what looks good to them. Customers can add food to their order, which appears on a sidebar next to the food options. The cart provides users with a current total so they can see how much they are spending on their order. When the user is satisfied with their order, they can check out. This prompt allows users to specify if they want to order takeout or for dine in. The signifiers on the system's pages allows for users to easily interact with it regardless of technical experience or familiarity with the system.

The system was designed to be used in two ways. First, the system can be used as an in-store kiosk that users can interact with in person. We took inspiration from similar ordering devices such as the food ordering kiosks seen at the Student Union Memorial Center. Our system was also designed to be used as a website. This would give users two quick and easy ways to order food. Users would be compelled to use this system for its quick and efficient handling of orders.

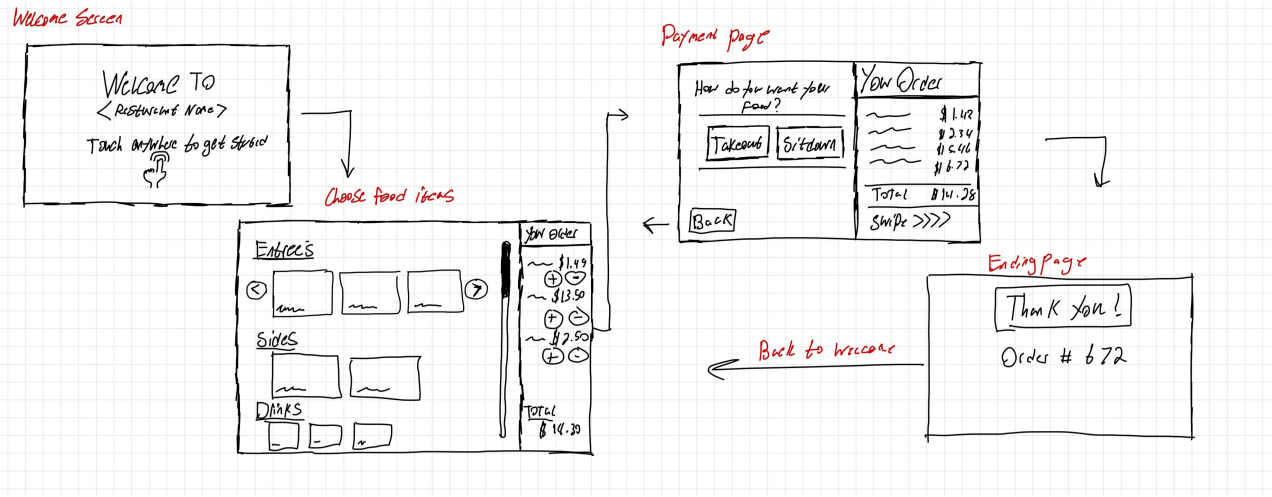
We designed the system with the user experience in mind. We wanted the system to be simple and easy to use for all people. This influenced our design in ensuring that the system was streamlined and not cluttered so users can easily navigate the system. We also wanted users to have a positive experience with the system. Because of this, we designed it to be intuitive to the users so they would not experience any frustrations while ordering. While designing our system, we created a hypothetical user persona for someone who might use the system. This helped influence our design decisions throughout our prototyping process.

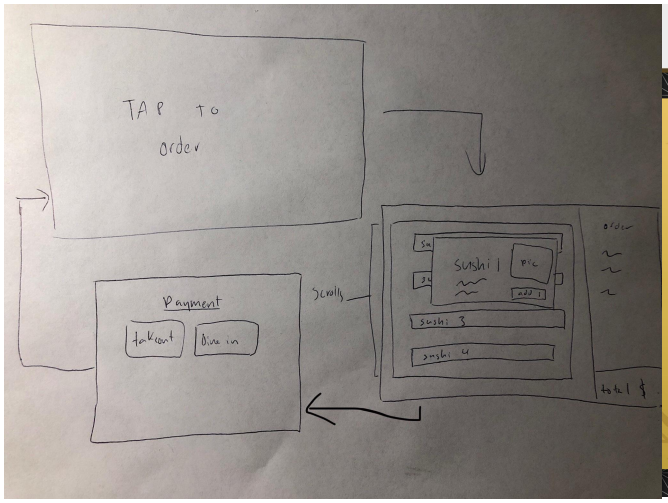
1. Requirements - User Persona

Our persona is Akasuki Sushimi. Akasuki is a radar technician who loves to eat sushi and try new restaurants in his free time. Because he frequently tries new restaurants, Akasuki does not have experience with this ordering system. As a radar technician, Akasuki has a demanding and repetitive job that involves him working with the same user interface all day. He is generally familiar with computers and touch interfaces. His monotonous job leaves him with little tolerance for clunky and intuitive user interfaces. Despite his lack of experience with the system, Akasuki will still be able to easily order due to the system's intuitive and streamlined interface.

2. Design

Each group member developed a low fidelity sketch of their design concept. Our sketches included both the layout and workflow of the proposed interface. This included signifiers and mappings for what buttons on the interface would do. After producing our sketches, we chose one to implement in our final prototype. The creation of these prototypes gave us a chance to discuss which ideas we wanted in our high fidelity implementation. It also allowed us to design the workflow of the interface to our liking. Below are screenshots of our low fidelity prototypes.

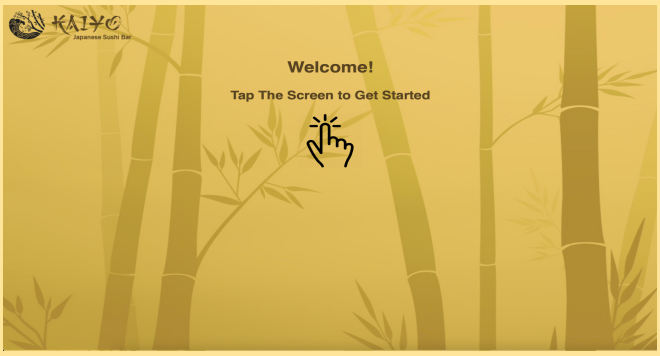


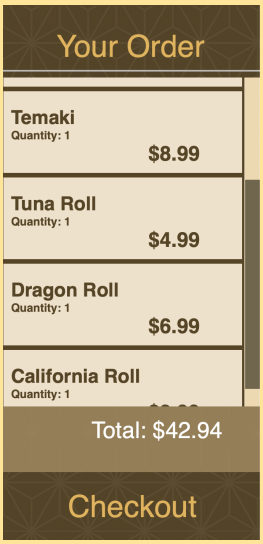


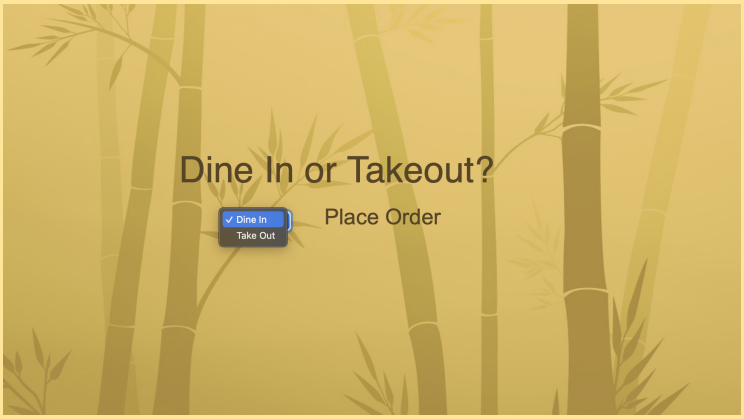
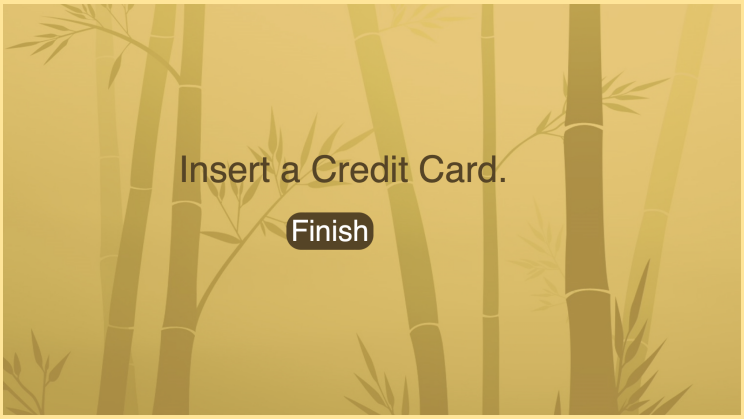
3. Implementation

For the implementation of our food self checkout system we choose to develop in using JavaScript, HTML, and CSS. We choose this due to its flexibility and ease of use along with the ability to style the site in more creative ways as compared to Tkinter.

We choose to combine the flows from our prototypes with the high fidelity prototype to make the final design. Working in a group of 3 we needed a way to efficiently work together on the same code, for this we use GIT. Having this we were able to all work together on different parts of the system at the same time and quickly see/get what the others were working on. For the menu food items we developed a JSON object to hold every food item and its corresponding description, price, and name, along with image location. With this each page can be quickly generated by parsing out the JSON and getting the information from it for each food category. THis dramatically reduced the work needed to make each separate category page since only one frame/layout was needed and depending on the category selected we grabbed different information from the JSON to populate the page with. Below is an analysis of each of the screens and features in our implementation.

The Welcome Page is the first page to be shown to the user. It is a simple and clean page with large readable text and a large signifier prompting the user to tap the screen. Upon tapping the screen the user is taken to the main menu for great feedback for the interaction.	**Welcome Page** 
The menu page is where the user is brought after taping the welcome page, beginning a transaction. On this page the menu is presented in six categories with images. Large touch points make it easy for the user to hit the different menu categories and be taken to their respective pages	**Menu Page** 
On this page the food items are constrained to the specific category. Large buttons under each item that is highlighted signify to the user that there is a clickable button that will add the item to the order sidebar.	**Add to Order Page** 

Order Bar 	The order bar shows all the items in the cart. It will update every time an item is added. The large text makes the items easier to read and the big checkout button makes it easy for the user to press. The button is also located to the right of the browser under the order bar because of the conceptual mapping. The color is darker outside than the color on the list of items. That is because it makes the item texts easier to read and looks more appealing.
Add to Order 	The add to order section shows the food image, name, price, description, and the “Add to Order” button in one container as it contributes to mapping. The button also changes colors when the user presses it as a source of feedback. The text size for the food name and price will be larger than the description as text size maps to the important information.
Tab Bar 	The tab bar will help the user easily navigate through different kinds of food items. Each of the buttons will change color once the user hovers/presses the button as a feedback.

The Dine In or Takeout page prompts the user to select if they want to order dine in or takeout. A drop down menu is placed on the page. This allows the user to choose the option they want. After choosing, the user can click on the Place Order button to progress to the next stage of the ordering process.	***Dine In or Takeout*** 
The Insert a Card page displays a message for the user to insert a credit card. This screen would be shown on the kiosk version of the interface. In this situation, a credit card reader would be attached to the kiosk. In a web implementation, this page would prompt the user for information. The finish button is in the center of the screen and is prominently featured. This affords the user clicking the button to progress through the transaction.	***Insert a Credit Card*** 
The Thank You page is the last page a user will see when ordering food. It displays a message that thanks the user for ordering from the system. It also gives the user an order number. These messages serve as feedback for the user that the order was successful. After a delay, the menu loops back to the welcome page so the process can restart with the next user.	***Thank You Page*** 

4. Testing

To sufficiently test our interface for user interactivity goals, we developed an evaluation plan. Our evaluation plan was to give the system to people to try. We would then ask the participants to give us their thoughts about the user experience and interactivity. Our system testing was done by allowing various friends and family members to interact with the software. The general consensus on these tests was that the text was a little small and that there was a problem with the horizontal navigation bar. We fixed both of these issues prior to the in class demo. To do this, we redesigned the layout to make the text more prominent on the screen. We also fixed the navigation issues by implementing the menu pages at the top. We found that aside from these problems, the users had a frustration-free and generally enjoyable experience with our system.