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INST 362

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Project 4: Prototyping – Part 1: Paper Prototyping & Test Results

System Concept Statement:

Despite there being a permanent regular menu board displaying the different menu options a customer can order, this type of menu fails to allow customization and updates to the menu, as well as display the latest deals and what the food looks like. Our role is to create and design a digital menu that shows regular menu options, deals and specials, as well as pictures of the menu items. We plan to implement this in an application, allowing users to interact with the menu via a touch screen interface. This would ideally allow users to add, modify, and/or edit menu items as they wish based on real-time restaurant inventory, while also making the menu easily modified with different items or specials.

This menu system would also allow the restaurant employees to update menu items and prices as needed. The digital menu would fetch the new updated data from the cloud (ex. A Google Sheets document) and display it. We are focusing on creating a system that is both user-friendly for customers that are ordering and for employees updating items on the digital menu. Our prototype will derive elements from all 3 designs, but mostly resemble designs 1 and 2.

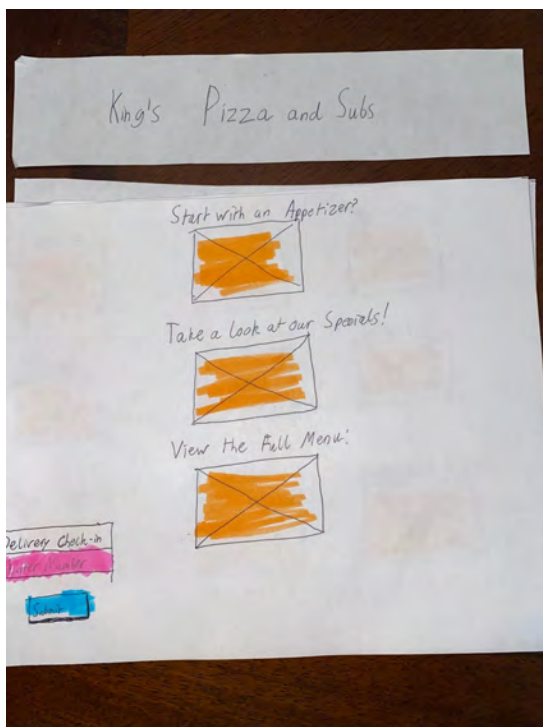
User Tasks Included:

In our paper prototype, we include a walkthrough of the application starting from the homepage continuing through the task of ordering a pizza and choosing custom toppings. Being that the menu we are working with is fairly large, paper prototyping more item categories would erode the process of generating useful feedback. Also, it

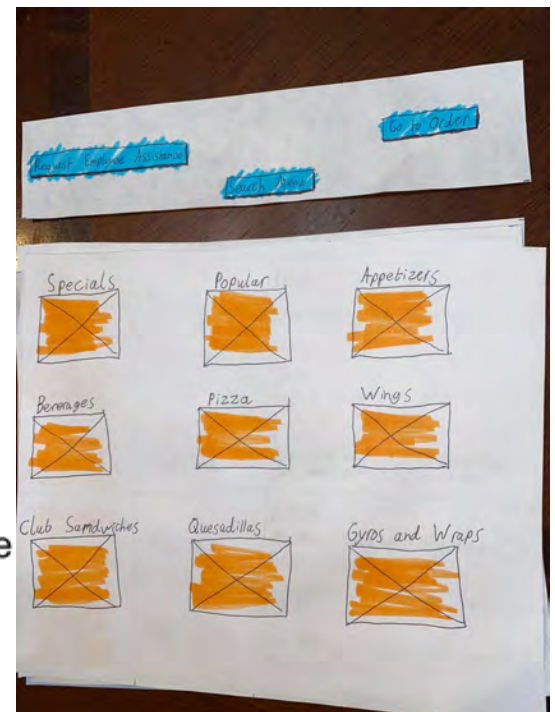
makes sense to focus on pizza to start with, as our client is a pizza establishment. Other tasks include order editing and further pizza order customizations. We avoided including tasks such as paying for items, as payment is a commonly implemented item in ordering applications, and does not need to be tested as heavily.

Our Prototype:

Walkthrough: Our prototype models a tablet screen that a customer can use to place their order. We have 6 different screens/layers as parts of the prototype. The first screen is 3 menu options for the customer: Appetizer Menu, Specials Menu, or Full Menu. After clicking on one of the three menu buttons, the user is taken to a screen where they can choose the food category of what they would like. Upon choosing a food category, a new page with food options is displayed. After the food option is selected, the user is taken to a food customization page where they can specify how they want the chosen food item. The user then clicks a confirmation button which takes them to an Order Review page where they can edit or delete items in their total order.



This image depicts first menu page a user sees before selections




Food items are grouped into categories in order to help keep things organized for the customer

Search Menu

	Name	Price
<input type="checkbox"/>	Name	Description
<input type="checkbox"/>	Name	Description
<input type="checkbox"/>	Name	Description
<input type="checkbox"/>	Name	Description
<input type="checkbox"/>	Name	Description

Users will be able to search the menu dynamically

Food Item



Price
Description

Size

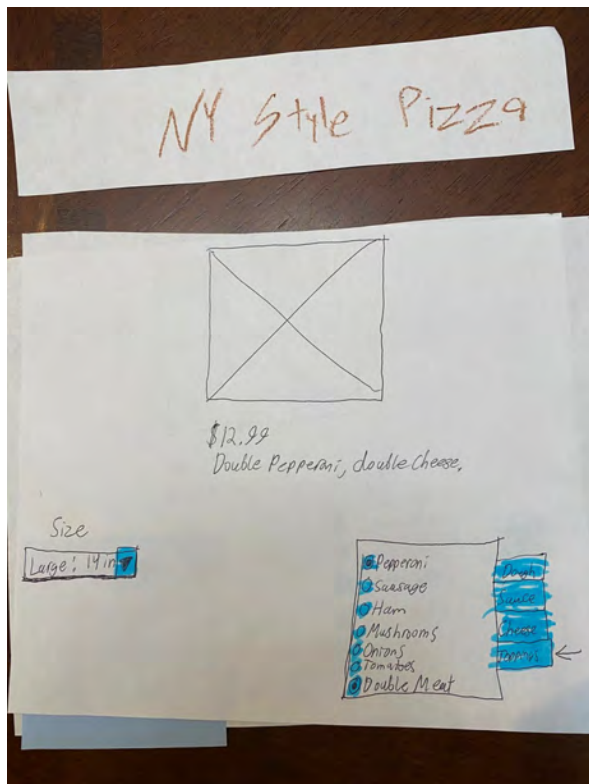
- Customization 1
- Customization 2
- Customization 3
- Customization 4
- Customization 5
- Customization 6

Customers will be able to alter items with an order item landing page similar to this image

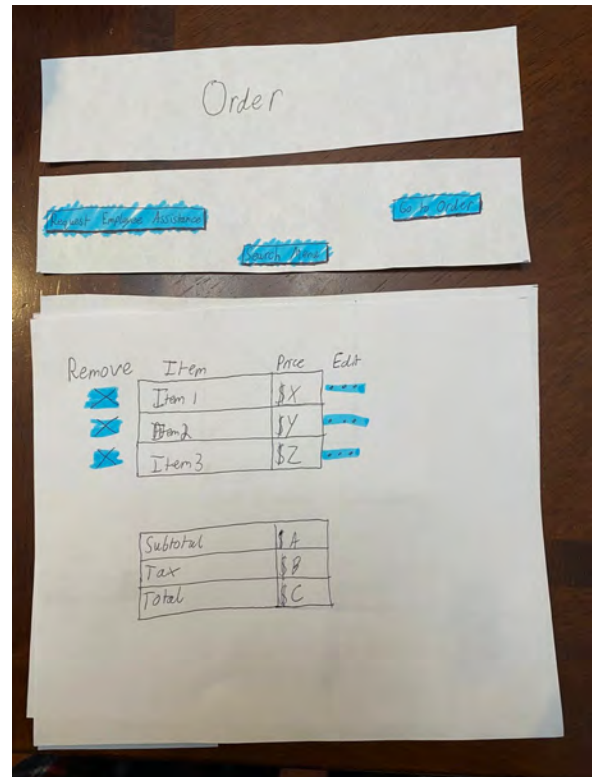
Pizza

<input type="checkbox"/>	New York Style	\$12.99 Double pepperoni, double cheese
<input type="checkbox"/>	Deluxe	\$14.99 Pepperoni, sausage, ground beef, mushrooms, onions, green peppers, tomatoes, turkey...
<input type="checkbox"/>	Vegetarian	\$14.99 Hawaiian, fresh mushrooms, onion, green peppers, black olives, green olives, fresh tomatoes...
<input type="checkbox"/>	Meatzaa	\$14.99 Pepperoni, ground beef, turkey ham, Italian sausage and bacon.
<input type="checkbox"/>	BBQ Chicken	\$12.99 Hawaiian, BBQ sauce, onion, black olives and onions, NO pizza sauce.

Upon selecting an item, customization options will be presented to the user



The user selects their toppings, sizes, and other options before moving to checkout



Once the customer is satisfied with their order, they can see a final review, and can edit or remove items, and must submit order for confirmation.

Pilot Testing: To pilot our prototype, testing was conducted by having different people try out the paper prototype as if they were ordering a pizza without any help. The relevant paper screens were given to them if they “clicked” on a certain category, etc by the designer. In doing so responses were noted and it was found that the system was mostly straightforward, but some changes may be needed.

Results: The testing process was more straightforward than expected. A lot of customers easily followed the design we laid out, with a few minor changes and buttons

needed to be added. Some users navigated the menu differently, depending on what they wanted to order. Also, some of the layers didn't exist in our prototype (ex. Appetizer menu), so navigating scenarios where some layers weren't present was challenging.

What was learned: We learned that our design always needs tweaking and with each usability test, something new was learned. It is easy to leave out common items, like we forgot to include a "Submit and Review my Order" button on the Item customization screen. Without this button, the customer has no way of completing their orders and going to the last screen. We also realized that back buttons were essential in almost every page.

Something that could be changed: I think something that could be added/changed is at the ending order review screen is adding an area to input a promo code. Also, I think it would be useful to display any relevant discounts on this screen (for example, if a customer ordered a special, showing how much they saved with the special). I also think adding a payment screen after the order review screen is necessary to fully understand the system.