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INST 362
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Project Assignment 3 – Part 2: Design Alternatives – Sketches & Scenarios

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.

Requirements Summary:

1. Menu Layout - Specials and Popular items - Popular items and specials shall be highlighted for the user. [Note 1]
2. Food Details - Ingredients - Information about ingredients provided to the user in the item listing description (information about ingredients also included in menu item encoding in POS system, with each ingredient listed) [Note 2]

3. Food Details - Photos - Online ordering customers should be able to see pictures for non-generic items on GrubHub and online ordering services that support pictures (non-generic item if it doesn't have >300 results when searched in the USDA foods database: https://fdc.nal.usda.gov/fdc-app.html#/) [Note 2, 4]
4. Food Details - Descriptions - Short descriptions should accompany different food items, especially for non-generic items. [Note 2,4]
5. Order Editing - Customization - Orders allow for customization and special requirements for preparation without notes (for chef) (can remove or add ingredients and add instructions for preparation if need be) [Note 3, 8, 9]
6. Order Simplification - Payment Methods - Make ordering process simple and less distracting: allow ease of use with payment methods, accepting digital wallet payments, cash, and credit card [Note 5]
7. Order Simplification - Confirmation - Print a legible order confirmation and receipts when customers order to avoid mistakes in orders [Note 4]
8. Online Ordering Menu - Centralization of Online Menus - Online ordering customers will see a consistent online menu among online ordering sites (ex. GrubHub, ChowNow, etc.) (create centralized Google Sheet detailing current menu items and updated based on what is in stock) [Note 10]
9. Online Ordering Menu - Menu Consolidation - Online ordering customers will see a succinct menu on GrubHub (System shall not include repeated pictures for successive menu items (ex. Regular stromboli and meat stromboli item listings on GrubHubwill will have one menu item picture of a Stromboli instead of 2 duplicates)) [Note 11]
10. Menu Layout - Categorizing Foods - Foods should be categorized, allowing users to choose different categories to look at. (Pizza should be a different section than subs, and a view should allow a user to see all available sections at once) [Note 12]

Associated Work Activity Notes:

1. Recommended Food items and Specials helps to grab interest
2. Aids such as photos and ingredients are important to decide what to eat
3. Order customization aids those who are pickier about food or have dietary needs
4. Customers can say the wrong item, or be under a misunderstanding when ordering
5. Customers can be distracted when ordering, causing errors
6. It is helpful to have menu items intended for large groups easily distinguished
7. Speaking directly with an employee can increase confidence in order accuracy
8. Deliberate ordering of item specifications in digital orders improves accuracy
9. Not allowing written specifications simplifies taking online orders
10. A consistent online menu among online ordering sites (ex. GrubHub, ChowNow, etc.) prevents confusion on availability of menu items
11. Succinct Online Menu items makes online ordering an easier process
12. Categorizing Food and organizing it makes the menu easier to read, especially since it is an expansive menu

Design 1 & Storyboard:

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2)

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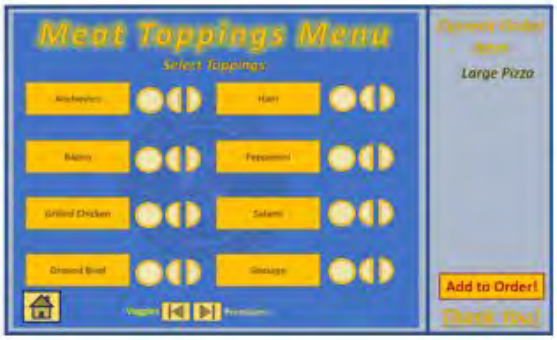

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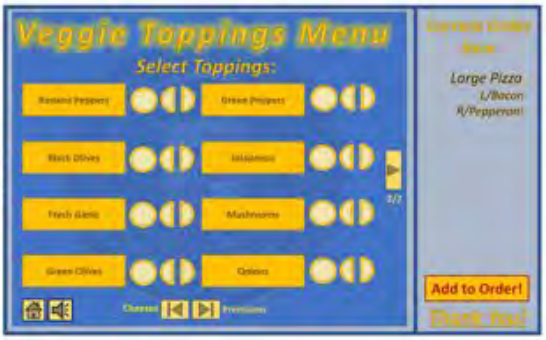

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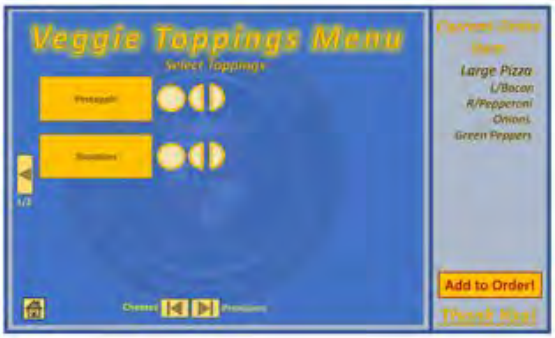

6)

Screen 1	Contains driver check-in in right margin section
Screen 2	Contains first portion of pizza menu
Screen 3	Contains toppings, pizza breakdown, navigation tools, dynamic order item on right, audio.
Screen 4	Continuation of features described in screen 3

Screen 5	Continuation of features described in screen 3
Screen 6	Contains pop-up alert after order item meets parameters of a special currently offered.

Assessment:

The storyboard featured above walks through a user making order selections that end up prompting a pop-up after their selections have met the criteria of a special currently on the menu. The user in this situation likely knew what they wanted but likely was limited by time; which would explain them overlooking a box in the first scene that contains the word ‘Specials’.

There are some flaws in the framework that would need to be addressed before making a prototype from it. For one thing, the special the user has qualified for entails 4-toppings, and while the pizza order contains 4-toppings, two of them are designated for half a pizza. This is not necessarily wrong, but if the business owner does not charge in that manner, than it is incorrect and could result in lost revenue over time. Another issue with these scenes from a visual perspective is the redundancy of the pizza portions for toppings. When a topping is ordered, it is implied that the customer wants the entire pie covered, so the whole circle portions may be better left off a working prototype. Furthermore, it may be more pleasing if the pie portions were left off and generated upon the customer making a selection. It could really go either way from a user’s perspective with some that prefer having toggle action buttons(as depicted in the storyboard) and others that would prefer pop-ups asking for portion confirmation.

The whacky idea of including a side area that acts as a check-in for delivery drivers as well as an accounting tool for customers during the order process is included in the storyboard. This is an area that needs more attention if a working prototype is to be built from the storyboard. What happens after they check-in? How does a driver verify the order they are there to pick up? Is this idea even worthy of implementation(for either/or purpose described)? Those are questions that need to be addressed if the feature is to be included later.

Design 2 & Storyboard:

Interactive Tablet Menu - This mockup represents an interactive menu to be implemented into a tablet in the restaurant. Customers will order items through the application, asking for assistance from employees if needed. Image boxes will be replaced by appropriate images.

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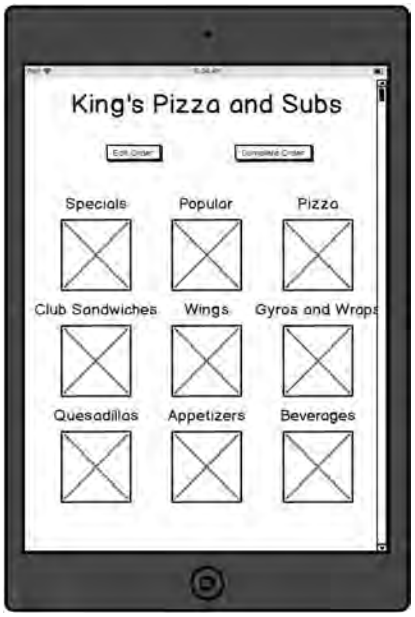
<tr>
<td> 

This screen shows the main menu, a scrollable list of sections of the menu that the user can select to open options in picture 2. Pictures representing each section will be added. From the top buttons, the user can edit or complete their order, leading to picture 4.</td>
<td> 

This screen shows the section menu, the options for all food items in a given category after the user selects it. Pictures, names, prices, and descriptions are given for every item, and tapping on the item allows the user to edit it or add it to their cart in picture 3.</td>
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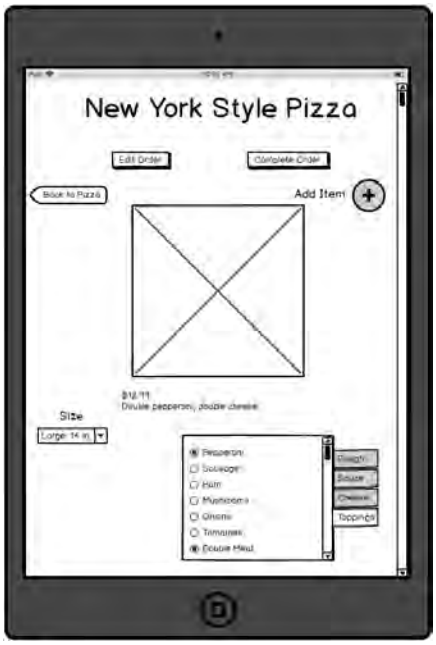
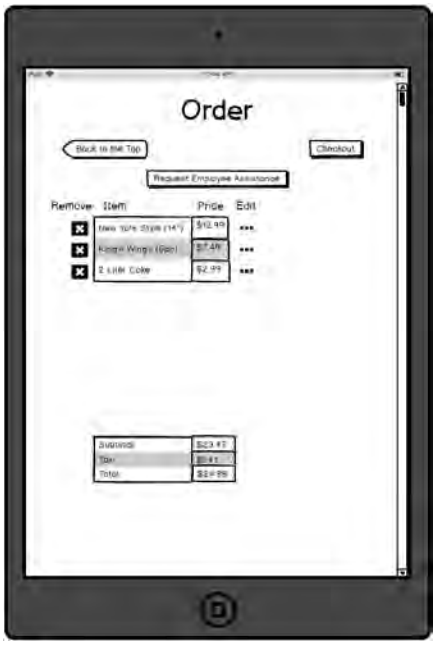
	
This screen shows the item screen, detailing all of the options for a given item. It can be fully customized, and the ‘add item’ icon can be tapped in the top right to add the item to their cart, leading to picture 4.	This final screen allows the user to review and complete their order, as well as request employee assistance for any special needs. Individual items can be removed or edited, with a total price shown at the bottom.

Scenario:

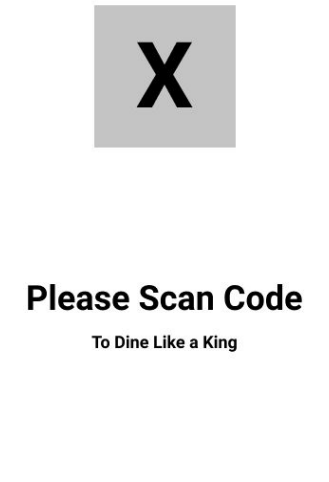
Entering the restaurant, the user is greeted by a tablet ordering system (or multiple) in front of a counter where food is delivered out of. In order to order an item, they tap on the appropriate category. First, the user orders a New York Style pizza by tapping on the Pizza category at the top menu, bringing them to a menu of the available pizzas. After selecting the pizza that they want, it brings them to a customization menu, allowing them to change the size, toppings, cheese, and more, then add the item to the order. They then navigate to wings and beverages in a similar manner to find other items they want, of appropriate sizes. When confirming their order, they can either edit or remove an item, or checkout. If assistance with navigation or technical difficulties is needed, the user can select ‘request employee assistance’ from the middle of the checkout menu.

Assessment:

This design focuses on the visual component of the system, providing the user with the information needed in organized pictures and categories in order to fulfill requirements 1, 3, and 10. Enough information is provided to the user in the form of the item descriptions in order to fulfill requirement 4, as the ingredient information was unknown for requirement 2. Ample order customization is given to the user, fulfilling requirement 5.

With the amount of pictures and easy organization provided to the user, their decision in making a purchase can be guided, seeing if they want to order an item by seeing pictures of the item, reading descriptions, or customizing it to their liking, this being the focus of this design. There are drawbacks, as online ordering services that many of the interviewees used could not pickup their order through this system and would have to talk to an employee. In an effort to unify all order customization, the user is also unable to only customize halves of a pizza at a time. While the ‘Request Employee Assistance’ button may be helpful, it is only on the final screen currently, and there are no employee override functions implemented in the system.

Design 3:



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Scenario:

A customer walks into the restaurant and wishes to order. Upon entering, they see no menu boards, no pictures of items, simply a single QR code displayed where the register should be. Upon scanning the QR code with the King's app or other preferred app, they are brought to the menu for the restaurant and given given the option to choose from a more streamlined and reduced menu with regular staple items as well as whatever specials happen to be available at the moment. Specialty items will only be displayed when they are available, otherwise, they will be removed automatically. After ordering, the user can enter their payment info manually, use a card linked to the app, or use PayPal. They will submit their order, be issued a receipt and order number. Upon their order being completed, they will be called up and given the option to eat in the restaurant or take it to go.

Assessment:

An interesting fact that you may notice about this more radical menu is that it consists of far fewer options in order to help streamline the ordering process. Additionally, the options that are made available are kept incredibly simple in order to keep from overwhelming the customer and to not waste space on the menu. Moreover, since no pictures are being used, in the name of minimalism, limiting the menu to only the must have foods helps to keep the customer from being overwhelmed. A simple scrolled list will keep the user from having to swipe and navigate in and out of various screens. Once they have completed their order, all the user has to do is pay. The process has been made as simple as possible in order to help keep the order process as easy as it can be.

This solution puts a major focus on requirement one for a method of advertising specials. Requirement five, a simple interface that is designed to be easy for potentially distracted users to follow. Requirements 9, 10, and 11 which call for a simple and succinct menu that will be easy to make consistent across platforms and lastly requirement 12 for a categorized menu.

Design three is a more radical idea that we pitched since the incredibly minimalist solution is in stark contrast to the large menu that King's offers and would almost certainly require a change so major on the part of our Client that the value gained would likely be far less than the effort exerted. Pizza is one of the few things where more is more and where restricting options can easily lead to alienating customers. As such design three would really only be appropriate for a strict and hard rebranding of our client's store.

Discussion:

Both design 1 and design 2 give a glimpse into a system that allows a customer to customize a food order. Design 2 carries through to the end of an order, while design 1 focuses on one aspect of functionality. It appears both are poised to advance toward a facsimile paper prototype, but design 2 is likely to be more effective as a paper prototype as it is low fi and more easily updated with hand drawn changes in black and white. Design 1 however, would be less ideal for paper prototyping unless the images were printed and edited to be black and white and use less ink than a printout of what is seen. Design 3 breaks away from those contexts and minimizes the use of boxes and uniquely offers both utility and could be viewed as a prototype in itself. Perhaps the starting point for a prototype is design three as it is minimal, and layering different parts of design's 1 and 2 could append the 3 designs as one. In paper prototyping we could use translucent paper and sketch different elements from each design and assemble them cohesively with Design 1's sidebar, Design 2's spacing, and Design 3's feng shui.