# User Study Report

903-13



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### **Executive Summary**

Our project is a web application that provides a variety of services for customers, cashiers, and managers of Rev's Grill. It is a continuation of project 2, however, this time following the Agile methodology. This application provides an online ordering system for customers to place orders from outside the restaurant. It also includes a POS system that allows cashiers to take orders from customers inside the restaurant. Along with these ordering features, the application enables managers to generate a variety of key business reports, as well as view and modify the restaurant's menu or inventory.

For our user study report, we focused on four main categories: personas, user studies responses/ findings, and the proposed design moves for our project moving forward. In the next few paragraphs, these topics will be addressed.

For the project, we are focused on making our website accessible so that it can accommodate people's different needs and disabilities. To account for this we included some user personas that will help guide our direction for the development of features such that it will become an easier website for anyone to use since that would help drive more sales for the company. For this report, we focused on 3 main personas and their needs to make a website more user-friendly for

them. The three personas are Maria, Carol, and Vishnu. For Maria her main needs within a website are they must be mobile friendly as she uses her phone mainly, it should be able to switch to different languages because English is not her primary language and she needs dietary information on items so that she can get the right food items. For Carol, her main needs are an easy-to-use interface since she doesn't use technology that often, a way to enlarge the text because she doesn't have the best vision, and the buttons/icons must be well-sized since she has unsteady hands. For Vishnu, his main needs are that the website should have high contrast in the coloring to accommodate his poor vision, a magnification tool to enlarge everything to help make it easier to read, a translation feature to accommodate different languages, and include nutritional information so he can make informed decisions on the food he is eating.

Once we identified personas for our user studies, we interviewed people with similar needs to our personas so that we could get a better understanding of what needs to be improved on the websites through interviews. For the interviews, we conducted 6 of them but we kept the user's names anonymous for privacy reasons. Through our user study interviews, the main theme that we were able to establish is that making an order as a customer is currently an unpleasant experience because they can't see what is being added to the cart very easily. The menu and inventory views are both cluttered and could use organizational improvement. The Excess/Sales Report, and What Sells Together were easy to understand overall. The Inventory Usage needs more detail on the graphs because it is a little hard to understand currently. Lastly, The Restock Report functionality was not clear to the users and could be improved by adding a way to restock to custom quantities.

Lastly, the proposed design moves provide possible directions to take with our development so that we can improve the website as a whole. From a customer perspective, this includes making the orders more visible, adding descriptions and pictures to the menu items, and making the cart easier to view on the page. From an employee/manager perspective, these moves entail making it easier to view all the menu items and inventory items from the manager page, making it easier to make large orders for the cashiers. From a more general perspective of improvements to be made for the website, this included mankind the menu item panel easier to understand, improving the navigation between the different pages, increasing font size and readability, provide tooltips for different features so it is easier to use them, and lastly ensuring that all the web application information and features work on a mobile device.

### Personas

#### Persona 1:

#### Maria

Maria primarily uses her mobile phone to browse the web. She requires clearly written information as well as translation options as she prefers to read web content in Spanish. Currently, she utilizes external tools for translating written content on web pages, which is tedious for her. As a community health worker, she also commonly needs access to dietary information and allergies for her patients. For Maria and many other web users like her, we will assume that they prefer sites that offer built-in translation options so that they don't have to translate content themselves. Also, whenever possible, we will avoid using language that is not easy to translate to other languages. We want to make sure that all users, regardless of their primary language, have a smooth experience free of confusion when they use our website.

#### **Assumptions:**

- There is a significant language barrier as Maria prefers to read in Spanish. Therefore, a translation tool is crucial in order for her to read in her preferred language.
- We will need to display dietary information for the menu items somewhere, and risks of allergies if there are any
- Mobile friendly because Maria prefers to use her mobile phone to browse the web

#### Needs

- Must be optimized for mobile devices
- Pages must have translation functionality for users that don't speak English natively
- Menu items must contain dietary information and allergy risks if there are any

#### **Abilities**

- Accustomed to browsing through the web on her mobile phone
- Able to speak Spanish and English
- Very knowledgeable about dietary restrictions as she is a health worker

#### Persona 2

#### Carol

Carol is a retired bookkeeper who owns an old computer and a basic mobile phone. She is familiar with computers from using them in her job but has trouble with technology for a variety of reasons. She has macular degeneration and mild arthritis and has to use a hearing aid. Her computer has minimal assistive technology. When browsing the web, she finds that she often needs to enlarge text on the screen, and she has trouble clicking on things accurately due to unsteady hands.

#### **Assumptions:**

- Carol is an elderly who is not experienced in technology, seeing that she is learning from her grandchildren
- She has trouble reading clearly due to macular degeneration

Has unsteady hands

#### Needs

- A very simple but clean interface so that everyone can use it
- A way to enlarge the text so that it is easier to read
- Buttons need to be well-sized so that unsteady hands do not affect her usage

#### **Abilities:**

• Willingness to learn seeing she is trying to adapt to new technologies

#### Persona 3

#### Vishnu

Vishnu is an engineer specializing in medical technology. His work aims to create solutions that impact global health, embodying his belief in being a world citizen through technology. Vishnu has low vision due to glaucoma, which necessitates the use of screen magnifiers and contrast adjustments to interact with digital interfaces efficiently.

#### **Assumptions:**

- Has tools to accommodate his poor vision, ensuring he can visibly see everything on the screen. This includes screen magnification and high-contrasting colors
- Might speak other languages that he is more familiar with as he is a world citizen

#### Needs:

- The website should have highly contrasting colors to aid with his vision
- The website should have a screen magnification feature while still maintaining a clean look
- Have the translation feature include more languages other than Spanish, Vishnu is a world citizen so there could be multiple languages he is familiar with
- Include nutritional facts on the menu items as Vishnu is working on medical technology

#### **Abilities:**

- Expertise in engineering, specifically in developing medical technology
- Well accustomed to using assistive devices to accurately see what is being displayed

## **User Study Participants**

| Participant Name<br>(May be Changed for Privacy) | Persona and Accessibility Needs   | Responsible Team<br>Member |
|--|---|----------------------------|
| Victor Wembanyama                                | Carol: need to be intuitive to use, ways to magnify text to support her macular degeneration, and buttons need to be well-sized to support unsteady hands | Kelvin Su                  |
| Mark Zuckerberg                                  | Vishnu: Need to have highly contrasting colors and screen magnification.  | Isaac Ambro                |

| Elon Musk     | Maria: Needs a site that is suited for mobile devices, provides smooth translation features, and includes dietary information in each menu item.           | Wyatt Cade     |
|---------------|--|----------------|
| Zach Edey     | Carol: needs to be intuitive to use, ways to magnify text to support her macular degeneration, and buttons need to be well-sized to support unsteady hands | Aditya Biradar |
| Luka Fradučić | Vishnu: Website must have a design that is easy on the eye with contrasting colors and an ability to enlarge text on page                                  | Karan Bhalla   |
| Lebron James  | Maria: Needs a site that is suited for mobile devices, provides smooth translation features, and includes dietary information in each menu item.           | Kunal Jain     |

## **User Study Findings**

#### **Prevailing themes in User Findings:**

- 1. Making an order for a user is a very unpleasant experience right now. The user can not see what is being added to the cart without moving back and forth between pages. The charge function is not behaving as expected. Making an order in the employee view is a comparatively better experience since the cart is shown to the side. Making large orders is difficult in both. There is no information about the menu items' ingredients or allergens
- Inventory and Menu Item Panels have a cluttered appearance. Buttons and forms are not displayed in a proper way, making it hard for the user to navigate through the pages. Users suggested using a dropdown menu to remove menu items and inventory instead of typing the name in.
- 3. Excess Report, Sales Report and What Sells Together were easy to understand. Users suggested displaying information about what the report entails.
- 4. Inventory Usage had no axes labels, causing the users to not completely understand the type of data shown. The graph was hard to read for some users due to the high number of categories.
- 5. Restock Report's functionality was not clear. There was no change in display when the inventory was restocked. Items could not be restocked to a custom quantity.

For further information, see Appendix 1: User Study Observations and Interview Notes

# Proposed Design Moves

| High-level Design Move   | Detailed Description  | Justification  |
|--|---|--|
| Make Adding Items to<br>Order more visible in<br>the Customer View | Upon adding an item to their order, the customer should be notified that their order has changed. This will take place through visible modification of the quantity on the shopping cart icon, as well as a small notification that appears whenever an item has been added to the order.             | When the customer adds items to their cart, there is no visible indication that their order has been modified. Thus, it is often unclear where to view the contents of the current order.  |
| Add descriptions and pictures to menu items                        | In the customer view, clickable items will have pictures added to them to show the customer what they can expect the item they are ordering to look like. Additionally, items will be given descriptions in case it is difficult to determine the ingredient profile of an item based on its picture. | Currently, the customer will have trouble picturing what they are ordering, because there is little to no information other than item names available to them.   |
| Allow the customer to view the cart easier                         | Instead of bringing the customer to a different page, clicking the cart icon should display a detailed pop-up window that shows the customer the contents of their current order. The customer will still be able to add to their order while this pop-up is showing.                                 | Currently, the customer has to navigate to a different page in order to view the contents of their order. This can make the ordering process much slower.  |
| For employees, make it easier to add larger orders.                | The button corresponding to each item will be equipped with a quantity modifier, which will make it very easy to add multiple copies of an item to the current transaction.   | Customers often place orders in which an item is ordered more than once. Currently, if a customer wanted to order a specific item five times, for example, they would have to click that item five times. This makes for a slower, less smooth ordering process. |

| Make it easier to view<br>all menu items in the<br>manager panel      | In the manager panel, split menu items into different categories as is done in the cashier view.  Display all menu items in each category so that they all fit on the page, preventing the user from needing to scroll to view all items.  | Currently, the view of menu items in the manager panel is very unfriendly to the user. Items are all stacked vertically, requiring the user to scroll to view all of them, and they are not categorized.  |
|---|--|---|
| Make it easier to view<br>all inventory items in<br>the manager panel | Enhance the organization and presentation of inventory items in the manager panel to facilitate efficient inventory management. This may include implementing features such as filters or sorting options to help managers easily navigate through a large list of inventory items                           | Currently, the list of inventory items is in a long column-like fashion, making it hard to search through all items. This can make it harder for managers to get a grasp on the items in their inventory and the attributes associated with them. |
| More understandable interface for the menu item panel                 | Simplify and clarify the interface for managing menu items, ensuring that options and actions are clearly labeled and intuitive to users. This may involve redesigning the layout, using visual cues, or providing clear instructions or prompts to guide the user through the menu item management process. | Currently, there is a lot of disorganized information and features on the menu item panel. The buttons and features are hard to utilize and understand due to this.   |
| Improve navigation<br>between different<br>pages                      | Enhance the navigation experience by optimizing the layout and design of navigation elements such as menus, buttons, and links. This may involve improving the visibility  | Currently, it is hard to tell what items in the navbar lead you to where. This is due to the lack of information and guidance from the UI. There are also little to no ways to return to previous pages.  |
|   | and accessibility of the navigation bars, providing indicators on routes, and ensuring consistency in navigation across different pages.   |   |

| readability  | improve readability throughout the application, especially for users with visual impairments or those viewing the application on smaller screens. This may involve adjusting font sizes for content and providing options for users to customize text size.  | have text that can be deemed too<br>small for some users, making it hard<br>to read and understand.  |
|--|--|--|
| Provide tooltips or<br>contextual help for<br>different features     | Implementing tooltips or contextual help features to provide users with additional guidance and information about specific features within the application. This may include explanatory text or pop-up messages to assist users as they navigate through the interface.   | Currently, there is little to no guidance from the website on how to use its features effectively, leading to the possibility of some users being unable to use the application to its fullest.  |
| Ensure all features and information are accessible on mobile devices | Utilize HTML/CSS features to create a responsive design that works equally across different device types and sizes. Allow elements to overflow when displayed on smaller screens, but ensure that they still display in full. Ensure that the use of a touchscreen device does not hinder the experience of a cashier, manager, or customer by designing features to include as little typing as possible. | Currently, using the website on a mobile device is very difficult. Not all of the content can fit into a small view, and the overflow of visible elements has not been handled well. Many features aren't even possible to use on a mobile device at the moment. |

### Appendix 1: User Study Observations and Interview Notes

### **Question References for Interview Notes:**

- 1. **Q1:** How easy is it to navigate between different pages?
- 2. **Q2:** Rate the simplicity/difficulty of constructing a typical order you would make at a fast food restaurant on a scale of 1 (very difficult) to 10 (very simple). Describe the motivation for your rating.
- 3. **Q3:** What would you change about the current ordering system?
- 4. Q4: Do you find the reports useful? Explain.
- 5. **Q5**: What would you change about the reports to make them more helpful from a business standpoint?
- 6. **Q6:** What can be done to create a better user experience on our website?

| Participant<br>Name  | Observations  | Interview Notes  |
|----------------------|---|--|
| Victor<br>Wembanyama | <ul> <li>Place an order in customer view</li> <li>Has a difficult time noticing if items are actually being added to the cart. This can be remedied by making the cart be a slider rather than a different screen, and maybe add a way to indicate items being added</li> <li>Text is a bit small for him to read because he has macular degeneration</li> <li>For the main customer view, the buttons are currently too small, his unsteady hands causes him to misclick at times</li> <li>The participant requested to have more colors and contrast so it looks more visually appealing</li> <li>Place an order in manager view</li> <li>Thinks it is more efficient than the customer view</li> </ul> | <ul> <li>As someone who isn't too familiar with technology, he mainly learns from her grandchildren. Predictably, he has an easier time using very simple and intuitive designs.</li> <li>Uses assistive technology/features to read. Some notable ones are screen magnification. This is the main way she deals with difficulties in reading text</li> <li>Due to his unsteady hands, he much prefers larger buttons so that it is easier to click</li> <li>Q1 Response: Thinks the customer view could be easier, specifically when viewing the cart. The participant found it tiring to repeatedly go back and forth between pages. The navigation bar buttons were also at times difficult to click due to unsteady hands. The participant found the employee/manager pages to be</li> </ul> |

- Buttons are ample sized for his unsteady hands
- The panel showing the order can be larger. It is currently too small for him to easily read
- Finds adding large orders to be too tedious, needs to be a way to add a large amount of items
- Add/Update Menu Item
  - Visually confusing right now
  - Too many textboxes, would prefer more buttons to click to add and/or delete
  - Prefers if the menu item were listed out in easier to view way
- Add/Update Inventory Item
  - Same complaints as the menu items because it is in the same format
- Inventory Usage Panel
  - The axis names are too small to view
  - Similar complaint for the actual bars, they should be larger
  - The descending order is a nice touch
- Sales/What adds together/Excess reports
  - Likes the way to add date ranges, maybe the calendar should be larger for easier viewing
  - Tables are ample sized, could maybe be organized better
- Restock Report
  - Buttons could be better named, needed an explanation for it

easier to navigate.

**Q2 Response:** The participant gave a rating of 3, because it is too tedious to go back and forth from a cart page to the menu item pages. He said he would rather prefer if it was already on the screen similar to the employees, or if it was a slider from the side of the screen.

**Q3 Response:** The cart should be easier to view as a customer. There should also be some indication as to when a customer adds an item to the cart. For the employees, the ordering box that displays the information should be more visually appealing to read.

**Q4 Response:** The participant finds all the reports to be useful. There wasn't really anything he could think about information-wise that he wanted. When it comes to use, the participant would have preferred if the axis text was larger, and if some of the buttons were larger as well.

Q5 Response: He thought the restock report should have a max limit on the inventory items. The bar graph could also be made larger so it is easier to view. From a business standpoint, perhaps it would also be more useful if the reports also displayed the actual time range, rather than the inputted time range (because users can input a valid time range outside of our transaction times) where the data is being queried from.

**Q6 Response:** The biggest thing the participant wanted was it to be more visually appealing. This is to be expected as we have not put too

| max limit for the items as p<br>well s  | much attention in the layout at this point in time. The user also found some of the buttons to be too small, having problems at times. Lastly, some of the text can be made larger   |
|---|--|
| S   | for easier viewing.  |
| Zuckerberg (Creator of Facebook)  O When clicking on a menu item, nothing happens visually  O Couldn't find where to see her order  O No indication that she selected it  O The hover mouse needs to be different for the menu item buttons  O Was able to look through all items  O Want to see that items were added to the order  O No ingredients listed  O The cart could look nicer  O Items on the left and prices off to the right  O Clicked charge and nothing happens  O Place an order in the employee view  O It is better than the customer as the items show up on the side  O The charge button cleared the transaction  O Add a new inventory item | Q1 Response: Very easy. It was easy to select from the different options.  Q2 Response: 3 or 4. Because you couldn't see what you were selecting until you were viewing the cart. Couldn't make any modifications. Wasn't able to checkout.  Q3 Response: Be able to see what you are selecting. Have it feel like selecting a button rather than just clicking on something.  Q4 Response: Yes they are useful because the necessary information is there and easy to adjust. However, there are some flaws in viewing the items frequently sold together and it could be made easier.  Q5 Response: For what sells together, I want to be able to select a specific item and see what is sold with that particular item. For the sales report, viewing when things are sold the most for sales promotions. Specifically for a time of day.  Q6 Response: Selecting menu items would be more helpful if the button changed colors when hovering over an item.  Fewer tabs to navigate the better. Want everything to show on one screen such as the cart. |

 The minimum count required is unclear as to what that means

- Update an inventory item count
  - Select a name rather than type in
  - Search in dropdown maybe
- Update an inventory item price
  - Same thing
- View inventory items
  - Wish it wasnt one list
  - Should be consistent with how the order panel looks
  - Should be a grid
- Remove inventory item
  - o No type-in name
- Add a new menu item
  - Selecting ingredients is unclear
  - Unclear how to add multiple ingredients
- Add a new seasonal item
  - Same stuff for adding a regular menu item
- Update menu item price
  - Like the dropdown menu, much faster
- Update menu item category
  - All good
- Update menu item ingredients
  - o All good there
- View menu items
  - Should be in a different format
  - Wish you could see the ingredients for the menu items

Want pictures.

In the cart, separating the item from its price (item on the left, pricing on the right)

Make the total price bigger and in bold



|           | <ul> <li>Separate the menu items         by category</li> <li>Remove menu item</li> <li>Would like to remove         more than one item at         once</li> </ul>  |  |
|-----------|---|--|
|           | <ul> <li>Inventory Usage panel</li> <li>Hard to see</li> <li>Y-axis names are too small</li> <li>Like the organization</li> <li>Excess Report Panel</li> <li>Good size</li> <li>Wish it was organized by the percentage sold</li> <li>Sales Report Panel</li> </ul>   |  |
|           | <ul> <li>Like that its organized by total sales</li> <li>Restock Report         <ul> <li>Unclear what this page is meant for</li> <li>Nothing happened visually when clicking fulfill restock</li> </ul> </li> <li>What sells together         <ul> <li>Says item name and quantity sold rather than item name item name</li> <li>Drop down menu item for seeing what items sell with a particular menu item</li> </ul> </li> </ul> |  |
| Zach Edey | <ul> <li>Place an order in customer view</li> <li>There's no visual when you click on an actual menu item</li> <li>The shopping cart is very small and not highlighted</li> </ul>   | Q1 Response: The different tabs for<br>the pages were easy to navigate<br>through. Each individual page in<br>terms of the navigation is varied for<br>how easy or hard it is to navigate. On<br>average, there was usually at least<br>one difficult feature to navigate on a |

- in any way so it is hard to see it
- There are no images on the items so it is hard to know what he is ordering
- Doesn't like the layout of the customer page, feels that the home page is spaced badly and the buttons for food categories are quite small
- Think there is little contrast in the current color scheme, so things don't pop out that well.
- Didn't know how many items they had ordered till they went to the shopping cart
- When going to different pages, the shopping cart should be accessible
- The charge button didn't seem to be doing anything
- Would like to see the prices of an item on the actual item
- Place an order in the employee view
  - Likes that the shopping cart is viewable regardless of what page
  - The charge button actually works
  - The burger orders don't show up on the other pages but this issue

given page.

**Q2 Response:** They would rate it at a 3 due to the fact that within making an order they had no idea how many items they had actually ordered since the shopping cart wasn't visible. The user also had difficulty finding the shopping cart so this compounded the issue of trying to make an order.

Q3 Response: They would make the main menu food category buttons bigger and placed at a more central part of the page because they believe it is currently at a bad position on the page. They would add a sliding shopping cart and make it visible on the same page while ordering rather than a completely separate page. They would like to see images of the food so they know what they are ordering. Higher contrast for overall design because they think the page currently blends in too much.

**Q4 Response:** They think the reports showed all the data for a given function which is nice however they found it hard to navigate the data because there wasn't a consistent way to sort the data across the reports. They also thought as a side note that the inventory page should be reorganized so there isn't constant scrolling to see all the information

**Q5 Response:** Add ways to sort and filter the data so it can be used more efficiently and help different use cases.



doesn't exist with the other pages

- Would like to see the prices of an item on the actual item
- Thinks that the charge and clear transaction buttons should be in more accessible spot, differs depending on which page of the cashier view you are on
- Overall employee view is more put together than the customer view currently
- Add a new inventory item
  - They are confused as to why all the inventory items are in a vertical line making the page very long
  - The Minimum count required word is cut off so could be hard to understand
  - Overall likes the functionality of this feature
  - Note for manager page is that it could be organized a bit better since everything is in a straight line
  - Button for this feature needs to be enlarged
  - Text is small so can be hard to read it currently
- Update an inventory item count

**Q6 Response:** Mostly focus on text and icons should be bigger for readability especially related to the calendar functionality.

The styling of the website should be

The styling of the website should be changed in terms of the background because the color white makes it harder to focus on specific and is hard on the user's eyes. The user thinks there should be images on the website which was said earlier as well. Anything that is clicked should have some sort of visual feedback to indicate to the user that the item or icon has been clicked.

| 0                         | There is no boxes to         |  |
|---------------------------|------------------------------|--|
|                           | separate the fields so it is |  |
|                           | hard to understand if        |  |
|                           | they are working with the    |  |
|                           | correct feature              |  |
| 0                         | The items are case           |  |
|                           | sensitive                    |  |
| 0                         | Text is a bit small so hard  |  |
|                           | to read                      |  |
| 0                         | The drop down menu is        |  |
|                           | also way too small so it is  |  |
|                           | hard to read                 |  |
| 0                         |                              |  |
| <ul><li>Updat</li></ul>   | e an inventory item price    |  |
| 0                         | The drop down menu is        |  |
|                           | also way too small so it is  |  |
|                           | hard to read                 |  |
| 0                         | Text is too small            |  |
| 0                         | Like that's the success      |  |
|                           | and fail messages are        |  |
|                           | different colors             |  |
| <ul><li>View in</li></ul> | nventory items               |  |
| 0                         | Hard to navigate because     |  |
|                           | it is one long list          |  |
| 0                         | The list is not sorted in    |  |
|                           | any way                      |  |
| • Remov                   | ve inventory item            |  |
| 0                         | Text is again very small so  |  |
|                           | it is hard to read           |  |
| 0                         | The buttons need to be       |  |
|                           | bigger as well               |  |
| 0                         | Organization needs to be     |  |
|                           | changed                      |  |
|                           | new menu item                |  |
| 0                         | Hard to tell what is and     |  |

isn't a buttonText is too small

| 0 | Buttons are very close by |
|---|---------------------------|
|   | confusing to know what    |
|   | each one is for           |

- Add a new seasonal item
  - Hard to tell what is and isn't a button
  - Text is too small
  - Buttons are very close by confusing to know what each one is for
  - Check mark for seasonal item could be bigger as well
- Update menu item price
  - o Dropdown is too small
  - Calendar is a bit small
  - Like the functionality
  - Aesthetics is bare bones and hard to follow
- Update menu item category
  - o Dropdown is too small
  - Calendar is a bit small
  - Like the functionality
  - Aesthetics is bare bones and hard to follow
  - Lists for menu items and ingredients is not organized
- Inventory Usage panel
  - There's no labels for start and end date
  - The graph is cluttered when there are many items
  - Hard to read the graph
  - Button sizes and text size could be bigger
  - o The graph layout is good

- Spacing is used well for this page
- Decently easy to use the page once he understood what the buttons did
- Excess Report Panel
  - Doesn't seem to function because it never showed excess no matter what date was input
  - Same layout, spacing good
  - Buttons and text could be bigger
- Sales Report Panel
  - No total for sales so hard to know how much was actually sold
  - Should be a way to sort by different metrics like alphabetical, numerical
  - Buttons could be bigger
  - Start and end date not labeled
- Restock Report
  - Think maybe the restock should be on the same page as Inventory
  - No indication if the current report is up to date or not
  - Buttons are fine, colors contrast is good
  - There should be a way to control what items are restocked and how many
- What sells together

| Place an order in customer view o Navigation did not make sense Confused whether clicking on items does anything Expecting cart to show updated quantity whenever items are ordered No translation No calories, macronutrients, ingredient or allergy information No calories, macronutrients, ingredient or allergy information Place an order in the employee view Cannot determine where employee view Cannot determine where employee view Cannot determine where employee view Cannot determine one pays cash, for example Add a new inventory item User is not sure where to navigate for this feature  Other base overly long Also sorted by count, should be be ince to fifficult to navigate through the difficult to navigate through |           |  |   |
|---|-----------|--|---|
| <ul> <li>Navigation did not make sense</li> <li>Confused whether clicking on items does anything</li> <li>Expecting cart to show updated quantity whenever items are ordered</li> <li>No translation</li> <li>No calories, macronutrients, ingredient or allergy information</li> <li>Place an order in the employee view</li> <li>Cannot determine where employee view is without guidance</li> <li>No option to choose payment type</li> <li>Transaction doesn't indicate change amount if customer pays cash, for example</li> <li>Add a new inventory item</li> <li>User is not sure where to navigate frrough the difficult to navigate through the diffiernt pages. It would help to see extra information explaining where on the site you are.</li> <li>Q2 Response: Rating - 5. Given the lack of extra detail, placing orders was difficult. It would help to see the cart update as an order is being modified. Also, I was unable to select a form of payment as a cashier. Another issue is that the ordering system completely lacked dietary/allergy information. Lastly, the text wasn't very readable.</li> <li>Q3 Response: I would like to see more information about each menu item. Dietary/allergy information would make placing an order as a customer easier. Also, I would like to modify the ingredient profile of the items I order. Lastly, it would be nice to be able to apply a promotional code or gift card at the transaction.</li> <li>Q4 Response: The reports are useful, but updates to their layouts would be helpful. Some charts lack proper titling, units, and labels.</li> </ul>   |           | change no matter what date was entered The table was very long Also sorted by count, should be able to sorted  |   |
|   | Elon Musk | <ul> <li>Navigation did not make sense</li> <li>Confused whether clicking on items does anything</li> <li>Expecting cart to show updated quantity whenever items are ordered</li> <li>No translation</li> <li>No calories, macronutrients, ingredient or allergy information</li> <li>Place an order in the employee view</li> <li>Cannot determine where employee view is without guidance</li> <li>No option to choose payment type</li> <li>Transaction doesn't indicate change amount if customer pays cash, for example</li> <li>Add a new inventory item</li> <li>User is not sure where to</li> </ul> | difficult to navigate through the different pages. It would help to see extra information explaining where on the site you are.  Q2 Response: Rating - 5. Given the lack of extra detail, placing orders was difficult. It would help to see the cart update as an order is being modified. Also, I was unable to select a form of payment as a cashier. Another issue is that the ordering system completely lacked dietary/allergy information. Lastly, the text wasn't very readable.  Q3 Response: I would like to see more information about each menu item. Dietary/allergy information would make placing an order as a customer easier. Also, I would like to modify the ingredient profile of the items I order. Lastly, it would be nice to be able to apply a promotional code or gift card at the transaction.  Q4 Response: The reports are useful, but updates to their layouts would be helpful. Some charts lack proper |

- Layout very unfriendly
- No legend showing what things mean
- Price input confusing, user is unsure whether to include dollar sign
- Update an inventory item count
  - Pretty simple, but ordering of items is confusing as they are not categorized/alphabetized
- Update an inventory item price
  - o Pretty simple
- View inventory items
  - View is okay, but categories would help for user-friendliness
- Remove inventory item
  - Couldn't remove an item by name easily, as case sensitivity was an issue
- Add a new menu item
  - Layout of this section was confusing
- Add a new seasonal item
  - Pretty simple
- Update menu item price
  - Pretty simple
- Update menu item category
  - Confusing to navigate this feature
- Update menu item ingredients
  - o Pretty simple
- View menu items
  - Hard to navigate to as they are not categorized well
  - Pictures would be helpful

be updating the labeling of the "What Sells Together" report to make it more self-explanatory.

Q6 Response: It would be very helpful to be able to translate text easily. Also, the mobile view is not up-to-par with the desktop view, and is not usable for me as someone who prefers browsing on my phone. There are no built-in translation options or images, which makes the page not very appealing. Adding more images, color contrast, and resizing features would make the website much more pleasant to use.

|               | <ul> <li>Again, lacks translation and allergy info</li> <li>Text could be larger</li> <li>Remove menu item         <ul> <li>Pretty simple</li> </ul> </li> <li>Inventory Usage panel         <ul> <li>Easy to navigate</li> <li>Graph could use better labeling (title, legend)</li> <li>Titles for each section would help</li> <li>Indicate units on the graph</li> </ul> </li> <li>Excess Report Panel         <ul> <li>Report makes sense</li> </ul> </li> <li>Sales Report Panel         <ul> <li>Very user friendly - makes sense what this report is for</li> </ul> </li> <li>Restock Report         <ul> <li>Not sure what to do based on first glance</li> <li>Pressed fulfill restock, nothing happened</li> </ul> </li> <li>What sells together         <ul> <li>Confusing what this does</li> <li>Column naming doesn't make sense</li> </ul> </li> </ul> |   |
|---------------|---|---|
| Luka Fradučić | <ul> <li>Place an order in customer view</li> <li>User had a hard time placing an order since he had to go back and forth between the cart to see what items were added</li> <li>Cart display was small</li> <li>No information about the menu items' ingredients or if they were vegan or not</li> <li>Place an order in manager view</li> </ul>   | Q1 Reponse: Very easy to navigate between the manager view. It is slightly harder to go back and forth between the cart and menu board when a customer places an order  Q2 Response: 6 since the user can't remove an item they added without clearing the whole cart. The cart may not clear sometimes after they attempt to clear it. No message to confirm that order has been placed. |

|              | <ul> <li>Can now see what items are being ordered side by side.</li> <li>Cart size slightly better but still hard to read</li> <li>Add/Update Menu Item</li> <li>Messy interface</li> <li>User would like clarification about the meaning of minimum quantity</li> <li>User would like more space between different buttons</li> <li>Add/Update Inventory Item</li> <li>User would like to use a cleaner interface which is looking and maybe show items in red which are out of stock or below a required quantity</li> <li>Inventory Usage Panel</li> <li>Axes labels to indicate what each number means</li> <li>Sales/What Sells/Excess reports</li> <li>Duration of the period selected would be nice</li> <li>More graphs to see trends</li> <li>Being able to magnify small text</li> <li>Restock Report</li> <li>Want to be able to set the quantity of the item to restock</li> <li>Information message about whether the item was restocked or not</li> </ul> | Q3 Response: As user said before, they would like the ability to remove a single item from the cart, determine if menu item is vegetarian or not and a message which confirms the order  Q4 Response: Yes they are useful. However, I am more of a visual person and like graphs for everything. So bar and line graphs would be nice for inventory usage  Q5 Response: As I mentioned, the ability to display a graph if possible. It may be really hard to understand raw numbers at times.  Q6 Response: The user believed a better landing page informing the user about different pages would be really helpful. They would also like to see more images and brighter colors. |
|--------------|---|--|
| Lebron James | <ul> <li>Place an order in customer view</li> <li>Menu item navigation is cut off and she wasn't able to order all the items</li> </ul>   | Q1 Response: Navigating between different pages was not difficult, but a lot of things were cut off on my iPhone's screen. Ordering buttons were cut off, and on the employee  |

- she wanted from her phone
- She did not know which items were safe for her to order - she needs to have information on ingredients and allergens, maybe descriptions too
- Added items to cart weren't clear
- Hard to navigate to what items she wanted since they were all in english
- Place an order in manager view
  - Same problems as customer
  - The transaction panel covered half the screen or more
- Add/Update Menu Item
  - The layout was really bad
  - The forms are really really unclear
  - She had no idea how to add an item based on what we gave her
- Add/Update Inventory Item
  - The fields were unclear what does "Minimum count required" mean?
  - Why does removing an item have an "item name" as input, instead of just selecting an item from a list?
  - Same problems as add/update menu item
- Inventory Usage Panel
  - The information was offscreen on mobile view, she had to scroll and zoom a lot to get to see it
  - Worked really well, but text was small
- Sales/What sells together/Excess

view, the transaction panel took up a significant portion of screen space and made it harder to navigate. Also, the navigation bars are cut off on the mobile view. Most text on the page is in english, not spanish, and there is no built in translation feature, so I need to assume a lot in order to navigate and order.

**Q2 Response:** 5. I was able to order chicken tenders and a shake, but the button to order a burger was not on my screen. I wanted a burger and wasn't able to get it. Also, I needed help in navigating since all the food names were in english.

Q3 Response: I would make it so that it's faster, and it's easier to view what I've added to my cart while I'm ordering. I also need to be able to translate the text. The app needs to be more mobile friendly, since I typically only use my phone to order food.

Q4 Response: The reports are useful, but some of them feel like they aren't necessary for the manager to have. Also, the way information is formatted was very confusing for me. Q5 Response: I think the reports need to format information in a much clearer way, so that managers can make better decisions on how to run the restaurant.

**Q6 Response:** The website needs to be translatable, at least into my language, spanish. The navigation bars need to collapse into menus that I can easily click on and open on a phone.

| rep   | orts   |  |
|-------|--|--|
|       | <ul> <li>The information was</li> </ul>      |  |
|       | offscreen on mobile view,                    |  |
|       | she had to scroll and                        |  |
|       | zoom a lot to get to see it                  |  |
|       | <ul> <li>Worked really well, but</li> </ul>  |  |
|       | text was sort of small and                   |  |
|       | could be bigger                              |  |
|       | <ul> <li>Needs to be translatable</li> </ul> |  |
| • Res | tock Report                                  |  |
|       | <ul> <li>Pressed the button and</li> </ul>   |  |
|       | nothing happened - it                        |  |
|       | was confusing and needs                      |  |
|       | to be clearer to the user                    |  |
|       | whats going on                               |  |