Deliverable D: Conceptual Design

GNG 1103A Project Group: A11

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Abstract

This report highlights the manner in which the conceptual design process is used when designing a user interface in the form of a webpage for the clients. The clients want a simple and easy to use UI for their drone delivery service, JAMZ Automated Delivery. Through the use of the conceptual design process, many ideas have been generated with the best one formed by the feedback and analysis of the various initial designs,

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1 Introduction

With the ongoing COVID-19 pandemic, many are subjected to the confines of their house and avoid going to public places, such as restaurants. With the fear of potentially catching the virus, individuals resort to staying home and ordering from delivery services such as SkipTheDishes and Uber Eats. Though these delivery services reduce human contact, there is still the risk of infection from the process of packing the order and delivering the order. In addition, those living in rural areas experience a lack of service as many of these delivery services do not serve individuals located further from downtown regions. JAMZ Automated Delivery decided to develop a solution to this problem as part of the Simon Neheme COVID-19 project. Their goal is to offer a food delivery service to individuals living in rural areas and to reduce human contact in the food delivery process. In this deliverable, the design process was further investigated in order to apply its key concepts to aid in the development of a webpage that satisfies the client's needs. JAMZ Automated Delivery is in need of a simple yet innovative customer interface that possesses fundamental functionalities, such as tracking the drone's location and the status of the customer's order, as well as displaying available restaurants and their menus. In order to satisfy these needs, subsections were created and designs that adhere to these subsections were generated. From there, the best aspects of the designs were picked to form a final design. The final conceptual design incorporates the needs of the clients as well as including a couple of interpretations from group members, producing a design that contains elements of simplicity, as well as originality.

1.1 Benchmarks

A couple of benchmarks referenced in this report are Uber Eats and SkipTheDishes. Their web pages were researched in order to create a webpage of the clients that contain elements of the two while also improving elements of those delivery UI's.

2 Creation of subsystems

When determining subsystems, the team used the categories for the client needs from deliverable C. The categories included "layout of application", "compatibility", "tracking of drone", "user authentication", "customer feedback", "verification", "customer assistance", and "additional features". From that list, group members decided on more specific and important aspects to develop a set of six subsystems. These subsystems were "homepage", "shopping cart", "dropdown menu", "map feature", "login page", "rating method", and "FAQ section", while also having these aspects adhere to the client's conditions of being "simple yet innovative".

3 Conceptual Designs

In using the developed list of subsystems, the team created concepts as to how they were going to satisfy these requirements. They worked individually to promote creativity and to increase the number of original ideas. They focussed on how to display the items as well as subsections within the elements, such as including a description of JAMZ in the homepage, or if the rating method should use a five star method, or with smiley faces. The team decided to use a mixture of sketches (either digitally or by hand), and subsequently transferred some of these ideas onto an online website creator, wix.com. In using wix.com, the group was able to determine the feasibility of their designs and can therefore make additional modifications to their designs in order to suit the website functions. Wix.com also gives a good idea as to what the final program for the design should include as it gives the group an idea of the capacities of a webpage and what functions it offers.

3.1 Individual Designs

The group had various designs of differing degrees. Some had a recurring theme throughout the pages and others made a few modifications throughout. There were also different approaches as to how to display the pages, such as font styles and colours. For example, referring to table 1.2 and 1.4, Parmveer and Daud went with a more sleek design. The web page usually had a colour scheme with black being the base colour. They also avoided bright images in order to satisfy the requirement that the webpage should not deviate excessively from the simple designs that are already out there, like SkipTheDishes. They also limited the use of several icons in order to make the page as simple as possible. Referring to table 1.1 and 1.3, Bonnie and Don went to web pages that seemed a bit brighter. Like SkipTheDishes, there is a constant colour scheme that is also slightly vibrant, which is used in these conceptual designs. However, there is a bit of contrast between the two designs as in table 1.1, the designs have a mixture of darker tones and lighter colours, while in table 1.3, there was a lighter theme. The two designs also ensured that users would be able to navigate through the webpage with ease by displaying the different headers and page names throughout the website.

3.2 Group Decisions

After reconvening as a team, the group decided on which aspects to improve as well as which elements to eliminate. The group decided to eliminate the shopping cart icon as this icon is usually displayed on webpages where a user will browse through various categories. For food delivery, the order should only be made from one restaurant and therefore the shopping cart icon should not be displayed while browsing through the web page itself; however, a shopping cart, as well as its items and the total, should be displayed to the user when they are reviewing the menu for a specific restaurant. Another thing that was eliminated was the single dropdown menu concept at the top of the homepage. This dropdown menu, when hovered over, will display the different pages, such as “about us”, “FAQ”, “order”, etc. Instead, the group decided to display the names of the different pages in a horizontal manner at the top in order to simplify user navigation, as the page names will be readily available and users would not have to search for the pages themselves through the dropdown menu. The names of the pages will contain their own dropdown menu in order to reduce user search time and potentially increase the task success rate. The team also decided to go for a mixture between bright and dark colours, as well as incorporating images in the pages without being too flashy. Therefore a colour scheme of black and light blue was chosen to add colour to the webpage while also making sure that the page does not become too cluttered. The team also abandoned any bright or bland elements in order to add a contemporary and minimalist feel. Anything that seemed too imaginative or too plain were combined to create a more traditional page. For example, the black and blue map in table 1.1 seemed to deviate too much from the traditional Google Maps display, which can make it confusing for users, therefore the team opted for a Google Maps display that looks very similar to the Map, but is outlined with blue so that when the users are tracking the drone, the user is able to easily read the display as well as making it attractive.

3.3 Best Designs

In order to choose the best design ideas as well as additional elements in the design, group members focussed on the different aspects of each page and if they adhered to the design criteria while also using a selection matrix. One requirement is that the UI focuses more on displays than functionality. Since there is a greater emphasis on the aesthetics, the group determined the homepage to have added importance to possess its adequate requirements. The homepage should be easy for the users to navigate. The elements within the homepage will be discussed further. Moreover, the review page for the website also had different interpretations to it, but remains an important element as many users of delivery services, such as SkipTheDishes and UberEats, have reported a lack of customer assistance. Thus, the review sections should be a satisfactory page for users to report problems and feel as though their opinions are being accounted for. The subsections within the review section will be explained further. Subsequently, the team decided to create additional design ideas for the homepage and the review page in the case that their interpretations were not the same as what the clients had intended.

3.3.1 Home Page

As stated previously, the homepage element is an aspect that the team wanted to further investigate. There were different interpretations to the client need of a “simple, yet innovative UI”. Therefore the team decided on a mixture between a dark theme while also including colours that will fit the theme. The team also converted the dropdown menu into a horizontal navigation bar. The number of pages on the homepage was also limited in order to ensure that users do not feel overwhelmed with the different page options. A drawback to this modification is that the page titles may not seem as specific as needed, which could cause further confusion. The team also decided not to put the company name as the main focus and to insert an address input for the user. Like Uber Eats and SkipTheDishes, the input bar is on the homepage which will help the user navigate and understand what exactly JAMZ Delivery is for. Instead of having to enter and scroll through the homepage in order to get to the different restaurant menus, the address input as the focus of the homepage will let users start their order process as soon as possible. According to the design criteria, the UI should be compatible with various phones and technology. In using a webpage, this makes the web page accessible online for all users. This also eliminates the need to calculate the app storage size since the webpage will be accessed via Google Chrome, Safari, or someplace else. The user does not need to consider how much space is needed on their phone for this UI. One aspect that may be a drawback if a user were to use the webpage on their phone. The goal is to make the website compatible with desktops, but it would be satisfactory if the layout of the webpage was not altered to an extreme extent when using a mobile phone. Therefore, the team would need to make sure that the graphics and the text still look aesthetically pleasing and are functional while on mobile. The design for the homepage is also designed to increase task success with the clear labels, and decrease the percentage of people using a search bar since the pages on the top should be clear enough for users to know which page they would like to reach.

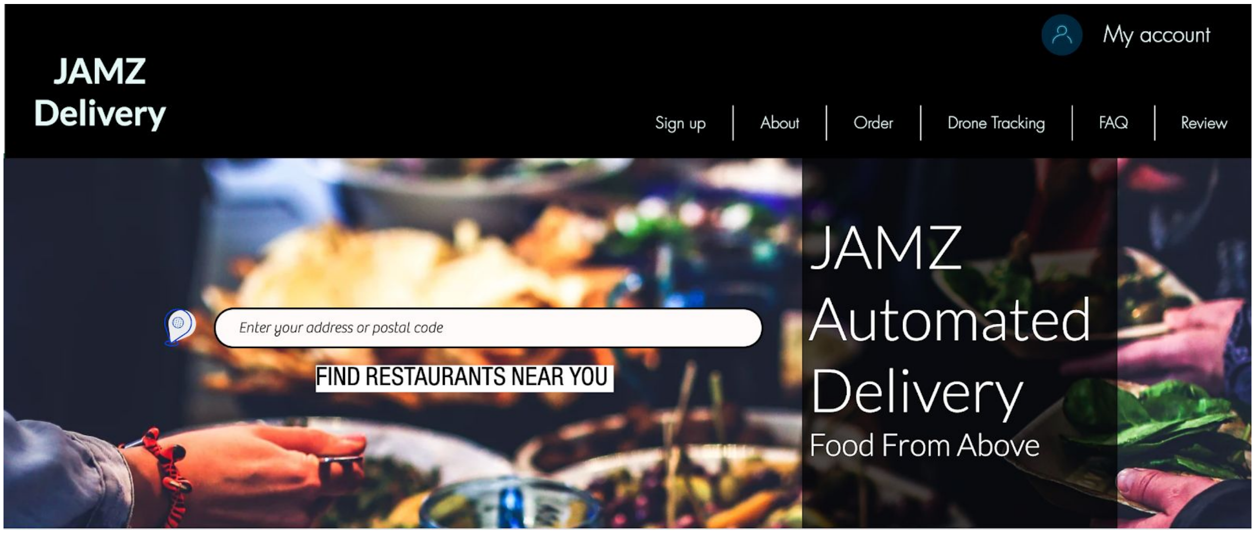
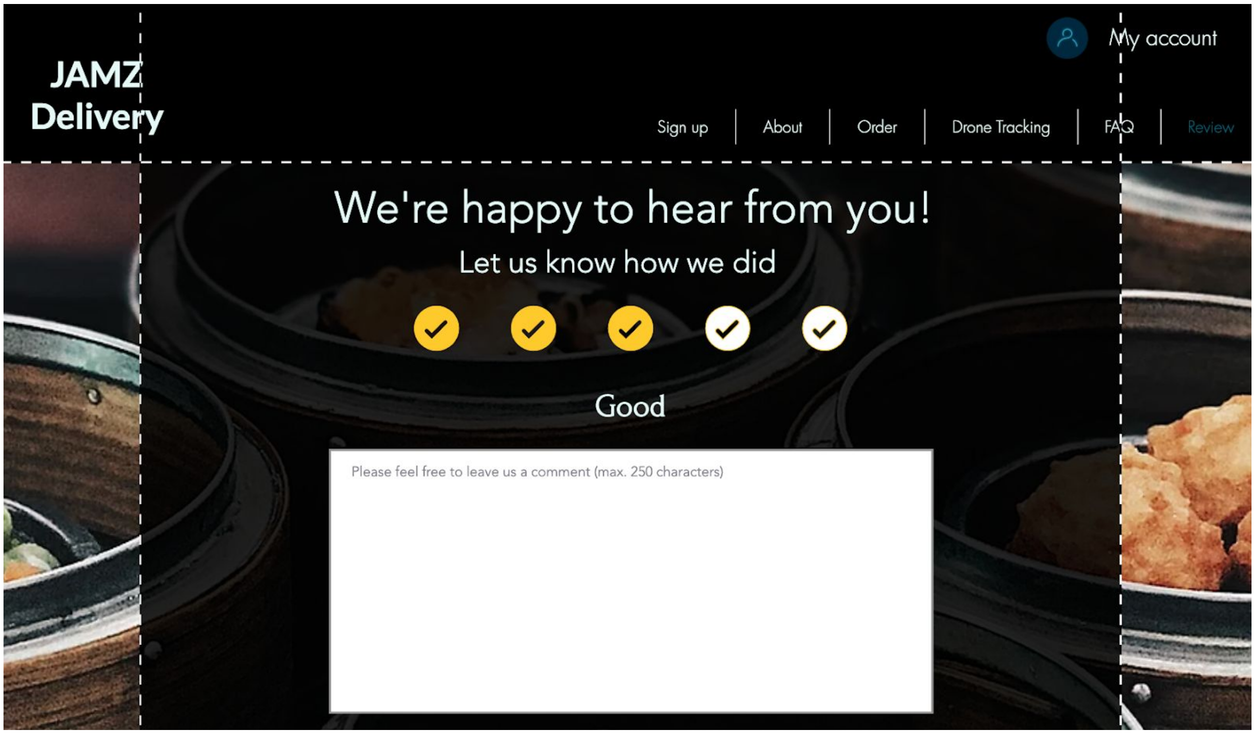


Figure 1.1

3.3.2 Review Page

The review page was another aspect the team wanted to investigate further. Subsystems within the page included the type of rating method and how it would work. Like Uber Eats, there is a rating system that pops up after a customer has received their order, therefore, the team thought it best to have the page displayed after the user confirms their order, rather than having a separate page just for reviews. In doing so, this eliminates the need for users to have to enter their name and email when writing a comment, which will encourage users to leave reviews. The team also decided to include both a checkmark rating system and a textbox, rather than one or the other. The team also decided against the traditional smiley face rating system and the star rating system and went with a checkmark system. The team also wanted the web page to be able to tell the user what exactly each check mark means (ex. one means poor, and five means excellent). When looking at the design criteria, this aids in the aspect of simplicity. It is crucial that the page is easy to understand, which the rating system ensures. The textbox also adheres to the constraint that the customer feedback should be 250 characters or less. However, the feedback button for the restaurants themselves was not included as the page should be very simple. The priority ranking of a review page is also not as high compared to the other categories in the design criteria, however, when doing technical and user benchmarking, customers have reported many problems that go unsolved concerning the UI. Therefore, the group decided to put an emphasis on the review section in order to make the JAMZ UI have an advantage over other delivery services.



We're happy to hear from you!

Let us know how we did

✓ ✓ ✓ ✓ ✓

Good

Please feel free to leave us a comment (max. 250 characters)

Figure 1.2

3.3.3 Further designs

The team also created different variations for the homepage and the rating section. The two pages include pictures of food as their background, but this can make the page less clear as it may seem slightly cluttered. The team may opt for a more solid background, or maybe a background that has icons for food (rather than real photos of food), but is not too vibrant (refer to figure 1.3). The pages could also have a section where the main text is going to be, with solid colours as the background, and can maybe include pictures where less important information is located in order to incorporate the idea of simplicity and innovation. The review page can also be modified to a 3 point rating system of simply “bad”, “okay”, and “great”, depending on how in-depth the clients would like their reviews to be. We could also incorporate an additional review page in the case that a user does not want to give a review right after they have received their order. In this case, the page would need to require the personal information (such as email and name) of the customer, like in table 1.2 or table 1.4

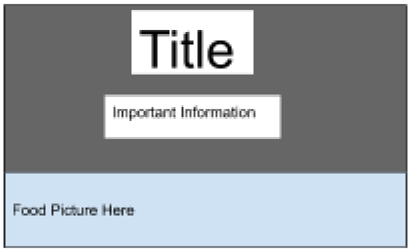


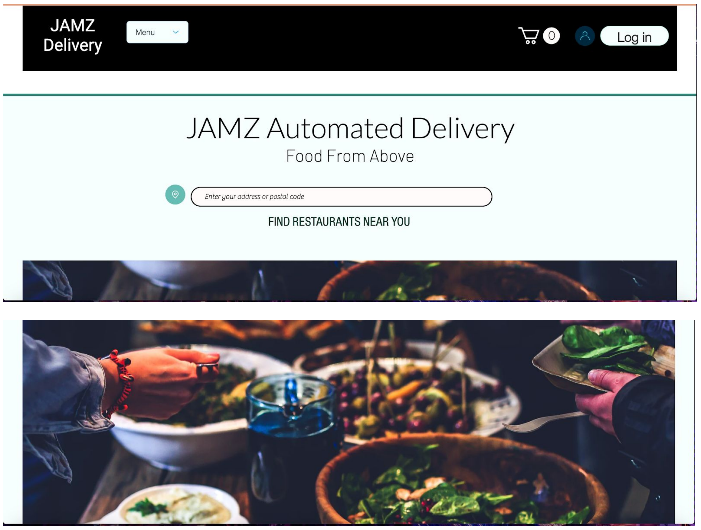
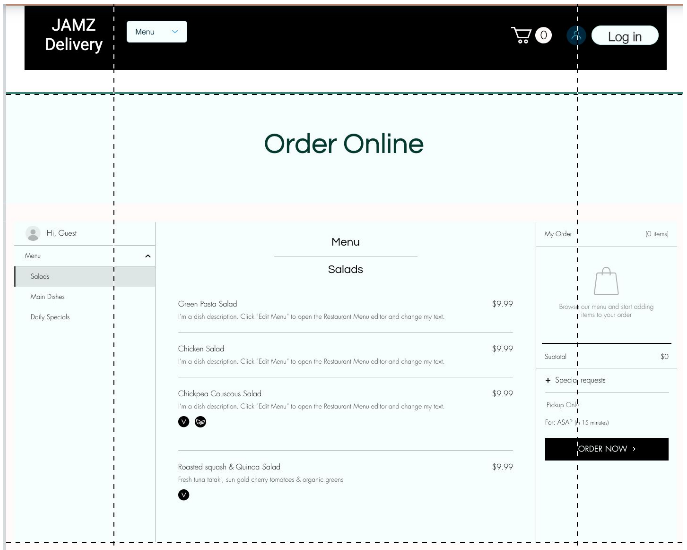
Figure 1.3

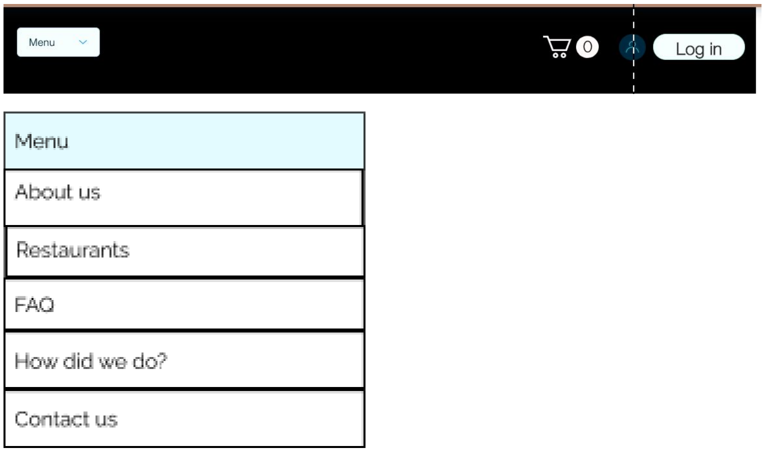
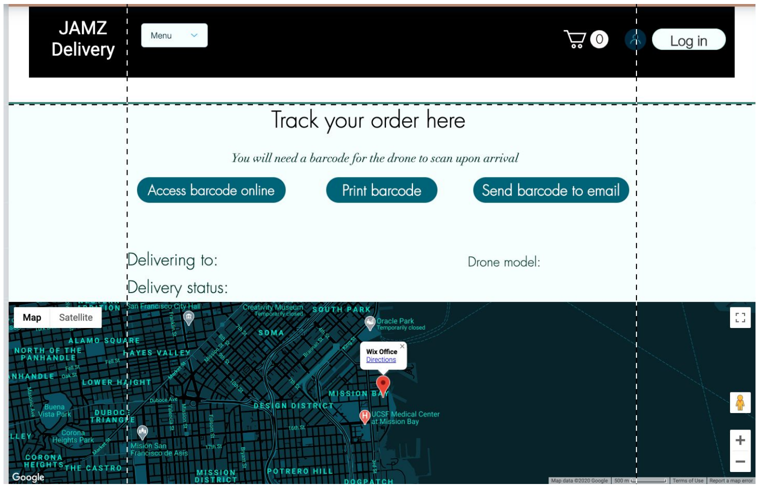
4 Conclusions and Recommendations

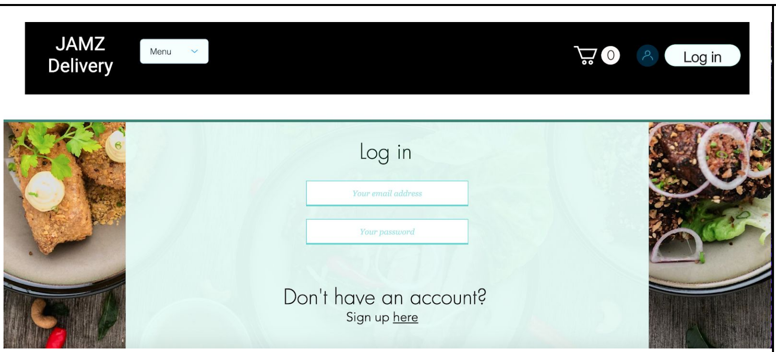
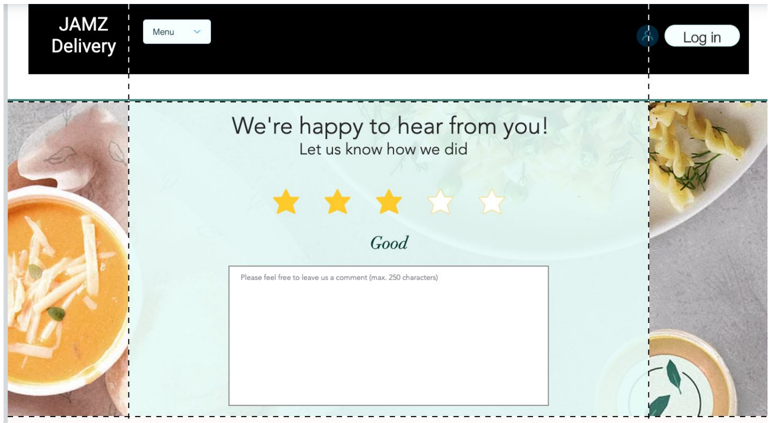
In conclusion, the design process aided in eliminating redundant ideas in the individual designs created by the group. In categorizing the needs of the client as well and prioritizing what is important and what can give the UI an edge to competing delivery services, the team was able to determine additional subsections within these solutions and produce elements that will help in designing the final product.

5 Appendix

Table 1.1

Subsection	Bonnie	Description
Homepage	 JAMZ Delivery Menu 0 Log in JAMZ Automated Delivery Food From Above Enter your address or postal code FIND RESTAURANTS NEAR YOU	- blue and black theme - Address insert to search for restaurants serving near the user - Top includes login, dropdown menu, and cart Drawbacks - Too much colour - Does not seem as “simple”
Shopping cart	 JAMZ Delivery Menu 0 Log in Order Online Hi, Guest Menu Salads Main Dishes Daily Specials Menu Salads My Order (0 items) Subtotal $0 + Special requests Pickup Only ORDER NOW ›Green Pasta Salad $9.99 I'm a dish description. Click "Edit Menu" to open the Restaurant Menu editor and change my text. Chicken Salad $9.99 I'm a dish description. Click "Edit Menu" to open the Restaurant Menu editor and change my text. Chickpea Couscous Salad $9.99 I'm a dish description. Click "Edit Menu" to open the Restaurant Menu editor and change my text. Roasted squash & Quinoa Salad $9.99 Fresh tuna tataki, sun gold cherry tomatoes & organic greens Browse our menu and start adding items to your order For: ASAP (in 15 minutes)	- Clicking cart icon will show the items in cart - Shows calculated total - Shows menu items - Can show previous orders - shows selected items - Order button Drawbacks - Does not display restaurant name, could cause confusion

Drop down menu	 Menu 0 Log in Menu About us Restaurants FAQ How did we do? Contact us	- Drop down menu located at top - Shows main pages "About us, restaurants, FAQ etc." - "Restaurants" will direct to page where restaurants can be categorized by cuisine Drawbacks - Drop down menu not as clear as just having the pages labelled at the top
Map feature	 JAMZ Delivery Menu 0 Log inTrack your order here *You will need a barcode for the drone to scan upon arrival* Access barcode online Print barcode Send barcode to emailDelivering to: Delivery status: Drone model: Map Satellite SOUTH PARK SOMA ALAMO SQUARE NORTH OF THE PANHANDLE HAYES VALLEY LOWER HAIGHT Wix Office Directions MISSION BAY DESIGN DISTRICT DUBOCE TRIANGLE CORONA HEIGHTS THE CASTRO MISSION DISTRICT POTRERO HILL DOGPATCH Google	- Tracking page shows 3 options to access barcode - User can access barcode and display on their computer - User can print out the barcode - User can email to their phone and display on their phone upon arrival - Shows map, black and blue colour scheme Drawback - "access barcode" seems trivial - map may be too complex, not simple enough

Login page	 JAMZ Delivery Menu 0 Log in Log in Your email address Your password Don't have an account? Sign up here	- Login page contains link to sign up Drawback - Not simple enough - Colours seem too vibrant
Rating method	 JAMZ Delivery Menu Log in We're happy to hear from you! Let us know how we did ★★★☆☆ *Good* Please feel free to leave us a comment (max. 250 characters)	- 5 star rating method - Hover mouse over star to see what the stars mean (could be better, good, great, love it etc.) - Includes text box for user to input additional comments - Pops up after ordering Drawback - should pop up after receiving the order, having separate page may make users less likely to comment - if it is a separate page on the website, users should enter an email to prevent spam comments

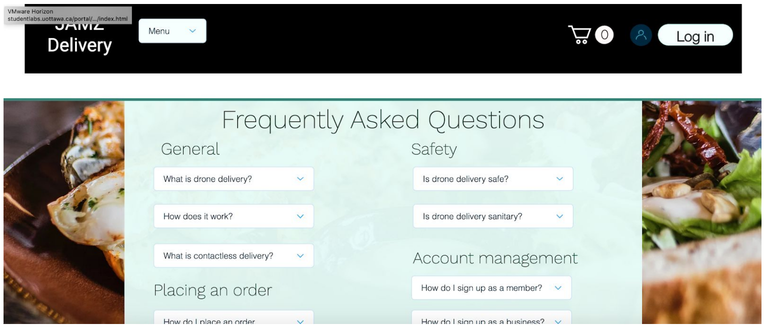
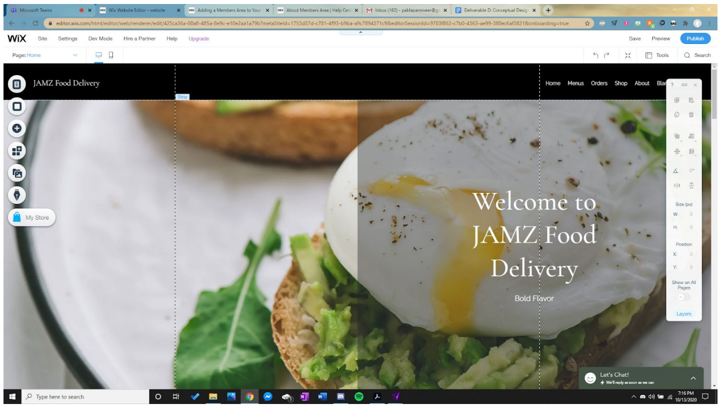
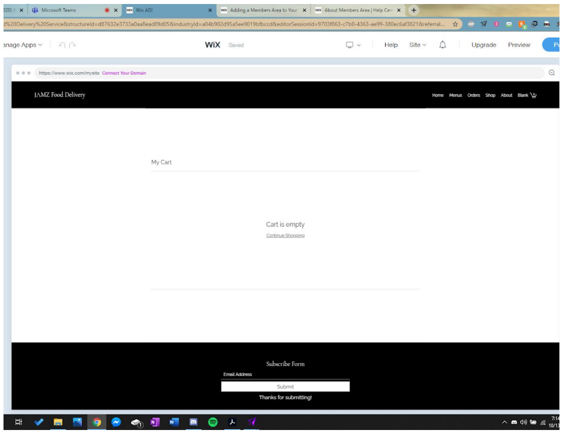
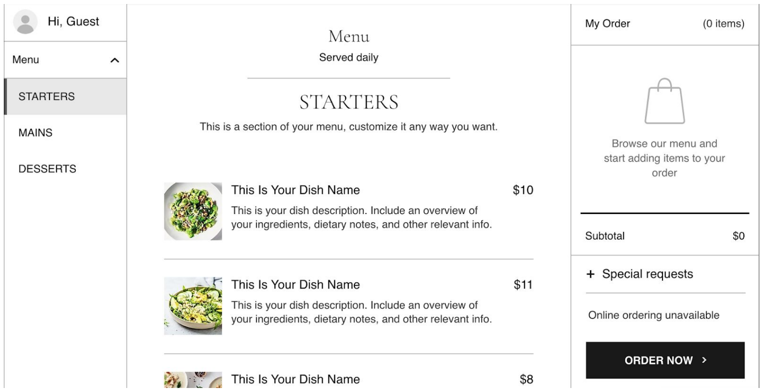
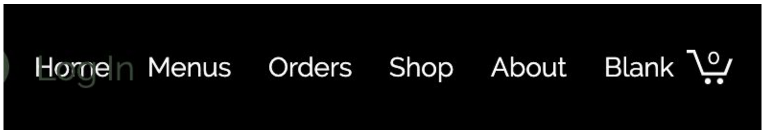
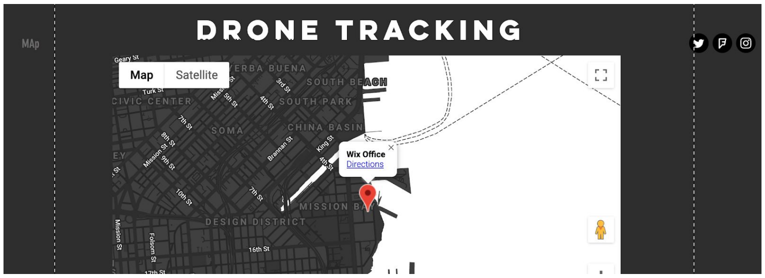
FAQ section	 VMware Horizon studentlabs.uottawa.ca/portal/.../index.html JAMZ Delivery Menu 0 Log in Frequently Asked Questions General What is drone delivery? How does it work? What is contactless delivery? Placing an order How do I place an order Safety Is drone delivery safe? Is drone delivery sanitary? Account management How do I sign up as a member? How do I sign up as a business?	- Dropdown menu format - Organized by section - Hover mouse over menu to see answers Drawbacks - Can be confusing with questions being labelled on the left and the right

Table 1.2

Subsection	Parmveer	
Homepage	 JAMZ Food Delivery Home Menus Orders Shop About Welcome to JAMZ Food Delivery Bold Flavor Let's Chat!	- Food picture as background rather than solid colours - Must enter website before proceeding with order - menu readily displays all pages Drawbacks - Users cannot order right away - Harder to navigate

Shopping cart	 IAMZ Food Delivery My Cart Cart is empty Continue Shopping Subscribe Form Email Address Submit Thanks for submitting!  Hi, Guest Menu STARTERS MAINS DESSERTS Menu Served daily STARTERS This is a section of your menu, customize it any way you want. This Is Your Dish Name $10 This is your dish description. Include an overview of your ingredients, dietary notes, and other relevant info. This Is Your Dish Name $11 This is your dish description. Include an overview of your ingredients, dietary notes, and other relevant info. This Is Your Dish Name $8 My Order (0 items) Browse our menu and start adding items to your order Subtotal $0 + Special requests Online ordering unavailable ORDER NOW ›	- clicking on cart icon will show the items in cart - can also show menu items - Shows total - Order button Drawbacks - Cart icon may not be needed as the user should only be able to order from one restaurant (no need to browse several restaurant menus)
Drop down menu	 Home Login Menus Orders Shop About Blank 0	- Pages are readily displayed Drawbacks - Topics must be specific in order to reduce an overwhelming amount of page names on the homescreen
Map feature	 DRONE TRACKING MAp Map Satellite Wix Office Directions YERBA BUENA SOUTH BEACH SOUTH PARK CIVIC CENTER SOMA CHINA BASIN MISSION BAY DESIGN DISTRICT	- Black and white Drawbacks - May be difficult for user to understand

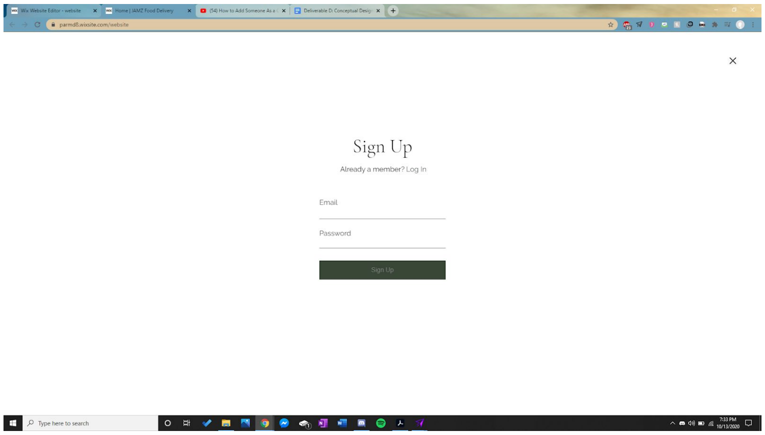
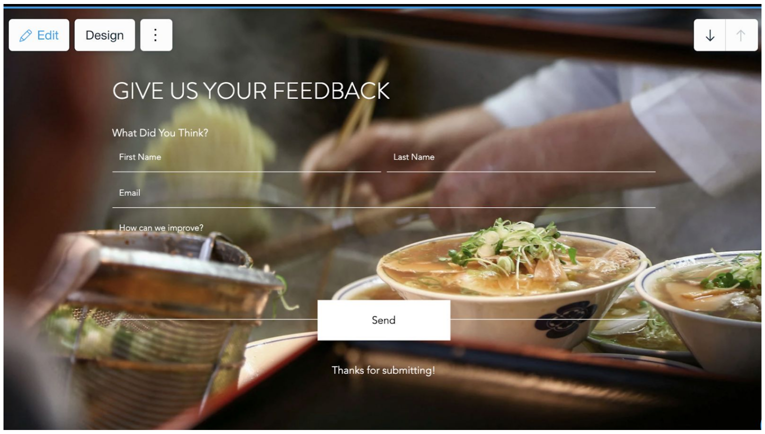
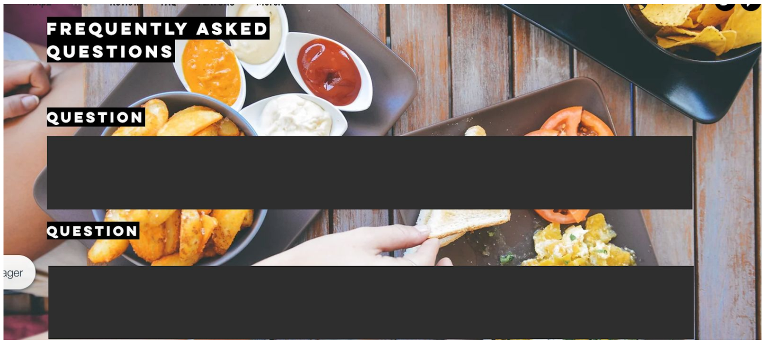
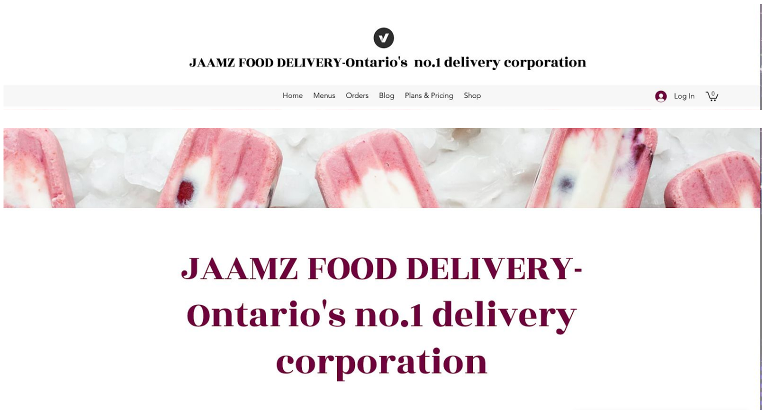
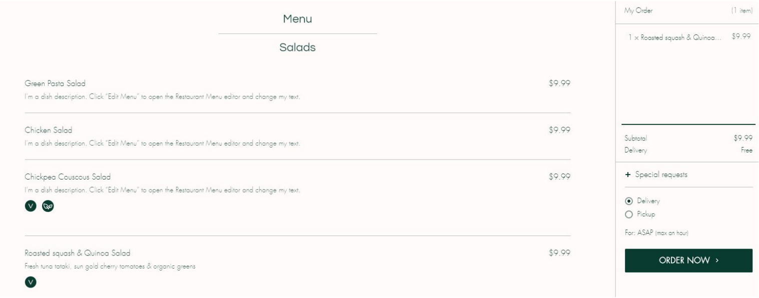
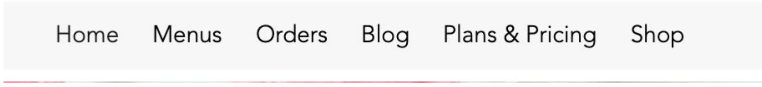
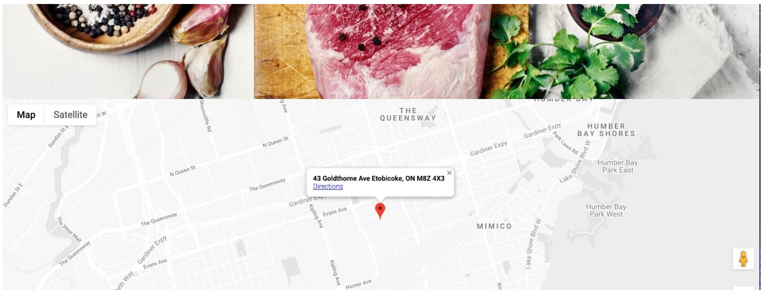
Login page	 Sign Up Already a member? Log In Email Password Sign Up	- Login icon shows sign up page, would need to go to another page to log in with existing account Drawbacks - Users already signed up need to go through this page and then to the login page (time consuming)
Rating method	 GIVE US YOUR FEEDBACK What Did You Think? First Name Last Name Email How can we improve? Send Thanks for submitting!	- Feedback contains a picture as the background - Feedback requires name, email, and comment drawbacks - Image can make text slightly difficult to reed - no star/smiley face ranking
FAQ section	 FREQUENTLY ASKED QUESTIONS QUESTION QUESTION	- block text - Picture background Drawbacks - Can be hard to read with visuals in background

Table 1.3

Subsection	Don	

Homepage	 JAAMZ FOOD DELIVERY-Ontario's no.1 delivery corporation Home Menus Orders Blog Plans & Pricing Shop Log In JAAMZ FOOD DELIVERY-Ontario's no.1 delivery corporation	- readily displayed page names at top center - One line description of JAMZ - pick and white colour scheme Drawbacks - Cannot order right away, would need to go through the page to find restaurants
Shopping cart	 Menu Salads Green Pasta Salad $9.99 I'm a dish description. Click "Edit Menu" to open the Restaurant Menu editor and change my text. Chicken Salad $9.99 I'm a dish description. Click "Edit Menu" to open the Restaurant Menu editor and change my text. Chickpea Couscous Salad $9.99 I'm a dish description. Click "Edit Menu" to open the Restaurant Menu editor and change my text. Roasted squash & Quinoa Salad $9.99 Fresh tuna tataki, sun gold cherry tomatoes & organic greens My Order (1 item) 1 x Roasted squash & Quinoa... $9.99 Subtotal $9.99 Delivery Free + Special requests ● Delivery ○ Pickup For: ASAP (max an hour) ORDER NOW ›	- clicking cart icon displays total as well as menu items - checkout button Drawbacks - added green seems to be ignoring colour scheme
Drop down menu	 	- Readily available pages Drawbacks - Pages must be limited, unless these have their own individual dropdown menus
Map feature	 Map Satellite THE QUEENSWAY HUMBER BAY SHORES Humber Bay Park East Humber Bay Park West MIMICO Gardiner Expy The Queensway N Queen St Evans Ave Lake Shore Blvd W 43 Goldthorne Ave Etobicoke, ON M8Z 4X3 Directions	- map feature is similar to google maps Drawbacks - No labels - User won't know what the map is for (tracking the drone)

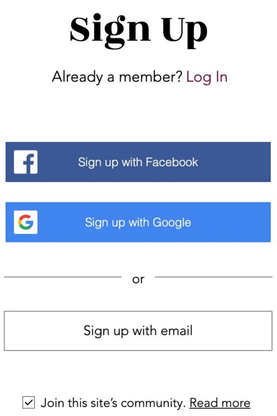
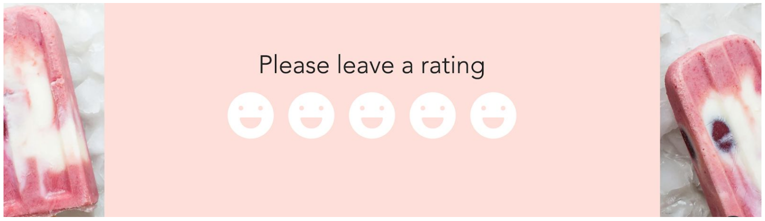
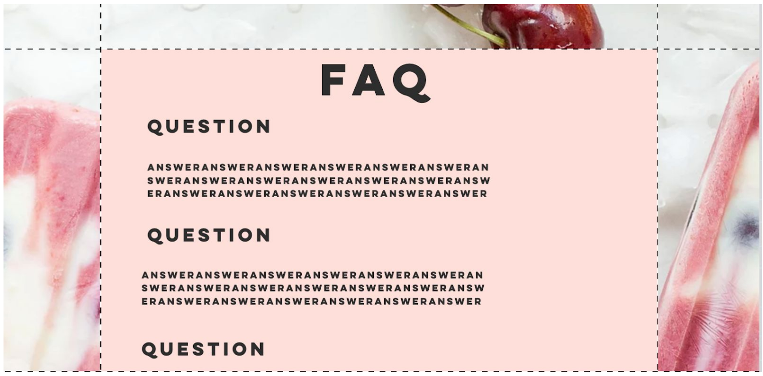
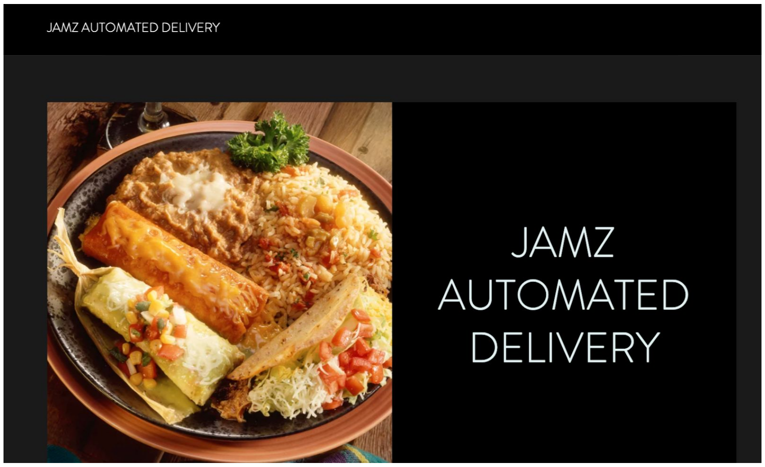
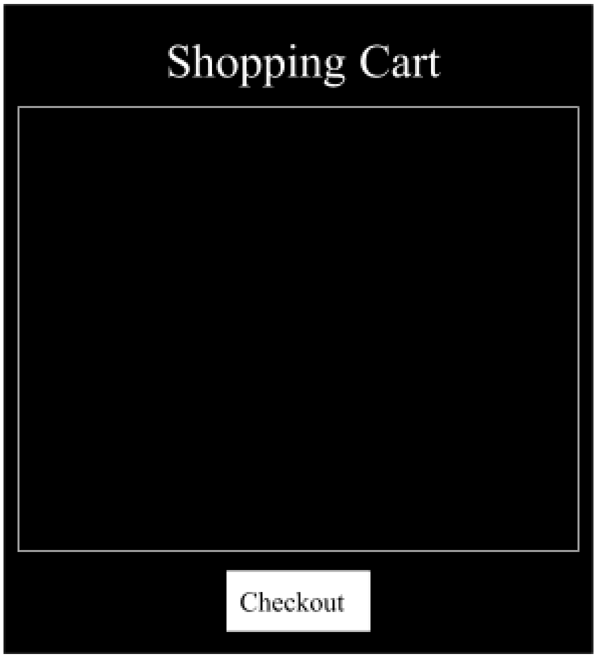
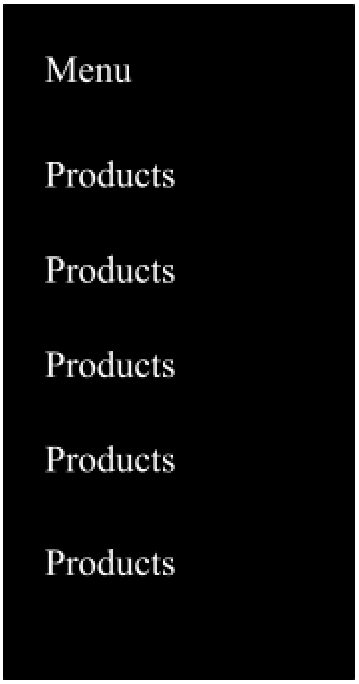
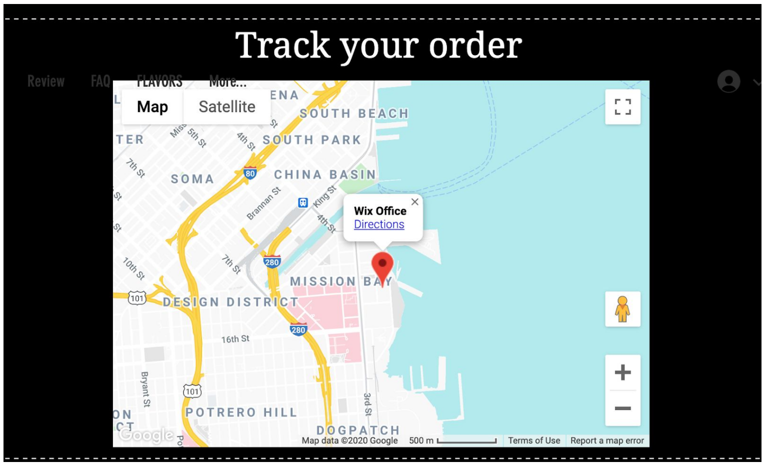
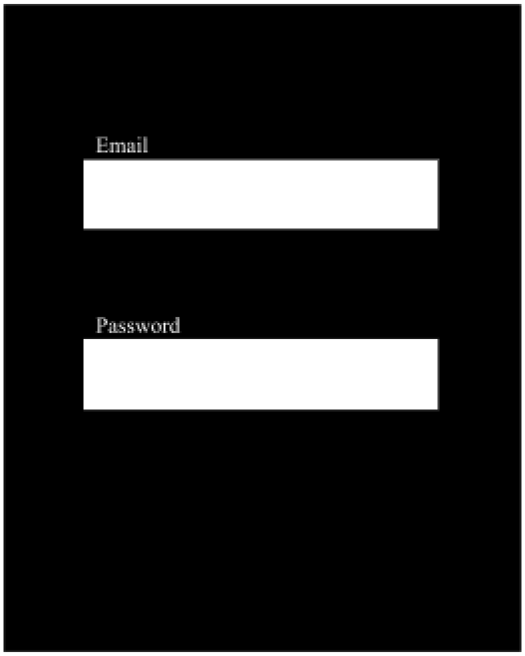
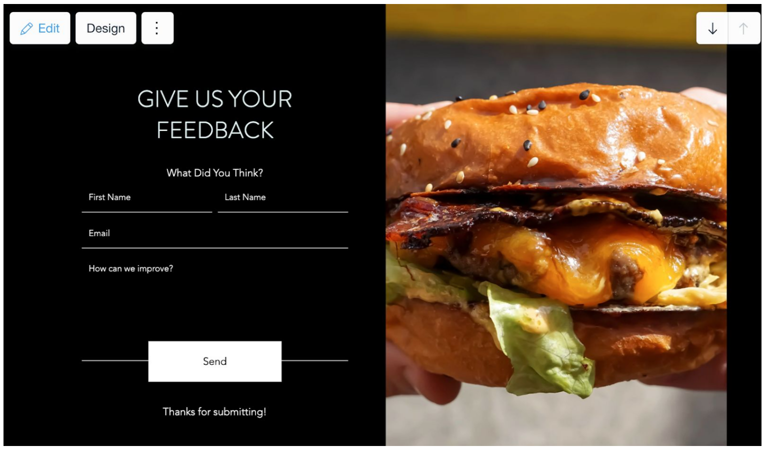
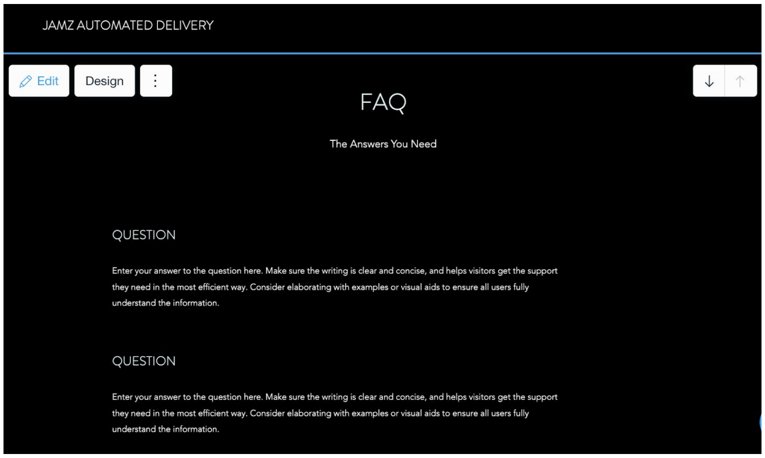
Login page	 **Sign Up** Already a member? Log In Sign up with Facebook Sign up with Google or Sign up with email ☑ Join this site's community. Read more	- login icon will direct to sign up page - sign up can be via Facebook, Google, or by email - Login page can be accessed through link Drawbacks - existing users need to go through sign up page to get to log in page (time consuming)
Rating method	 Please leave a rating	- uses smiley face rating - Follows pink and white theme - faces change colour when mouse is hovered over Drawbacks - Does not say what one or five smiley faces mean - Customers can give the wrong review - No comment section
FAQ section	 **FAQ** QUESTION ANSWERANSWERANSWERANSWERANSWERANSWERAN SWERANSWERANSWERANSWERANSWERANSWERANSW ERANSWERANSWERANSWERANSWERANSWERANSWER QUESTION ANSWERANSWERANSWERANSWERANSWERANSWERAN SWERANSWERANSWERANSWERANSWERANSWERANSW ERANSWERANSWERANSWERANSWERANSWERANSWER QUESTION	- Compiles all FAQ Drawbacks - Does not sort the questions by category - Harder to navigate

Table 1.4

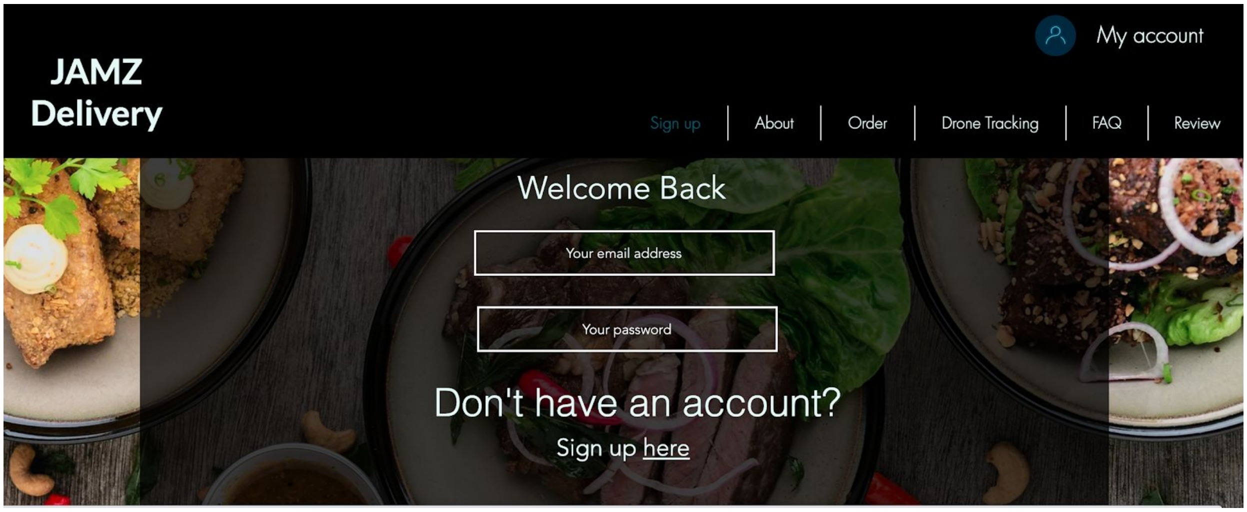
Subsection	Daud	
Homepage		- Simple dark design - Must enter page to find other pages Drawbacks - No navigation system - Harder to find where to order
Shopping cart		- simple cart that displays the items - Will display the total Drawbacks - Can be confusing when someone does not have anything in cart - Should have placeholder text, like “cart is empty” to further clarify

Drop down menu	 Menu Products Products Products Products Products	- Simple black and whtie design - Display in vertical manner Drawbacks - Should have separators between names or else it could be confusing for use - Users would need to find menu first before proceeding to desired page
Map feature	Track your order Review FAQ FLAVORS More... Map Satellite SOUTH BEACH SOUTH PARK SOMA CHINA BASIN Wix Office Directions MISSION BAY DESIGN DISTRICT POTRERO HILL DOGPATCH Map data ©2020 Google 500 m Terms of Use Report a map error	- Similar to google maps Drawbacks - Maybe too simple, no place to display status of order

Login page		- simple, follows colour scheme - straightforward Drawbacks - Should have link to sign up page to help with navigation - not much information, can be confusing
Rating method	 Edit Design GIVE US YOUR FEEDBACK What Did You Think? First Name Last Name Email How can we improve? Send Thanks for submitting!	- Feedback follows colour scheme - Picture on side - Feedback box is clear - Requires personal information Drawbacks - No star/smiley face rating system - users may not be as inclined to enter comments than if there were a simple star/smiley face method

FAQ section	 JAMZ AUTOMATED DELIVERY FAQ The Answers You Need QUESTION Enter your answer to the question here. Make sure the writing is clear and concise, and helps visitors get the support they need in the most efficient way. Consider elaborating with examples or visual aids to ensure all users fully understand the information. QUESTION Enter your answer to the question here. Make sure the writing is clear and concise, and helps visitors get the support they need in the most efficient way. Consider elaborating with examples or visual aids to ensure all users fully understand the information.	- FAQ follows colour scheme - Most important questions will be put first Drawbacks - questions are not categorized in groups - Harder to navigate

Extra conceptual designs made from the integration of concepts from individual designs



JAMZ Delivery

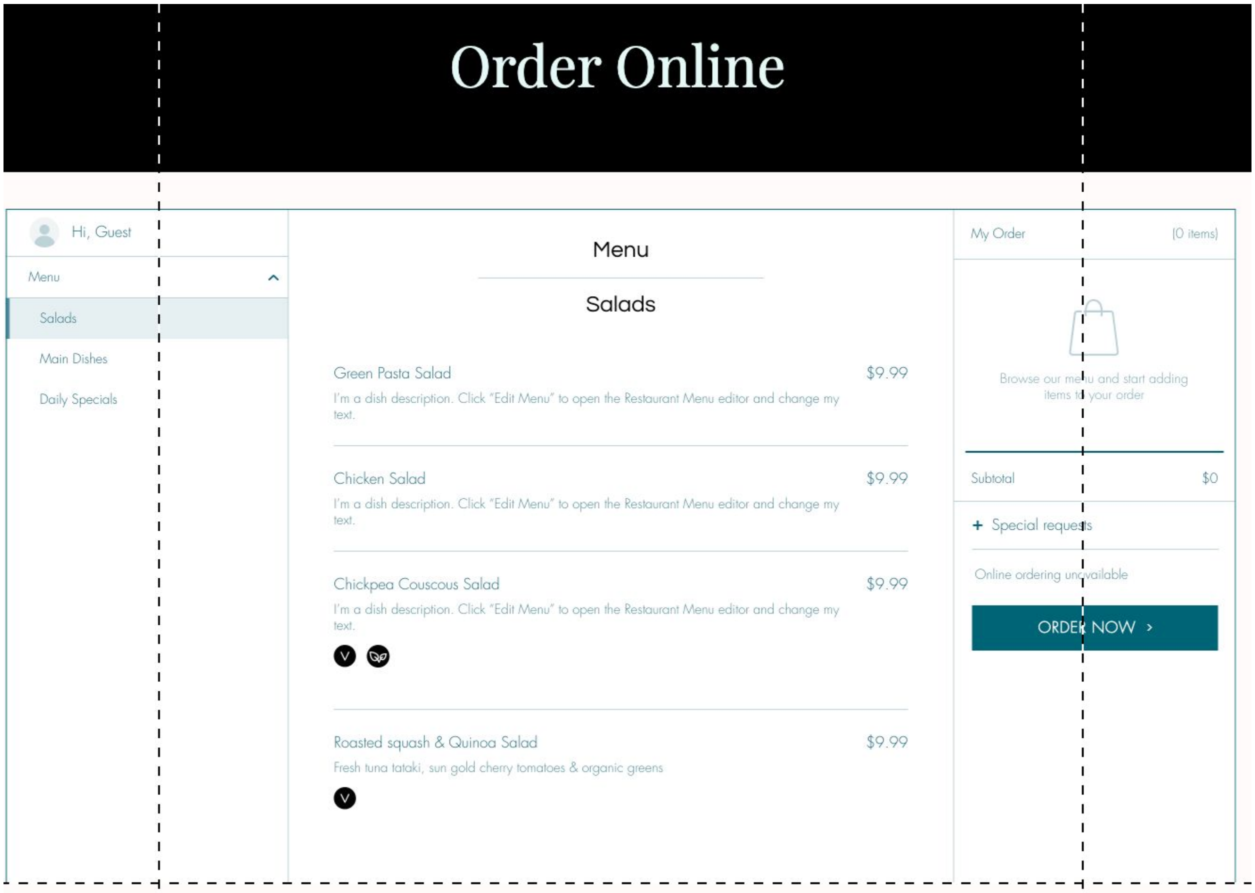
Welcome Back

Your email address

Your password

Don't have an account?

Sign up here



Menu

Salads

Green Pasta Salad $9.99
I'm a dish description. Click "Edit Menu" to open the Restaurant Menu editor and change my text.

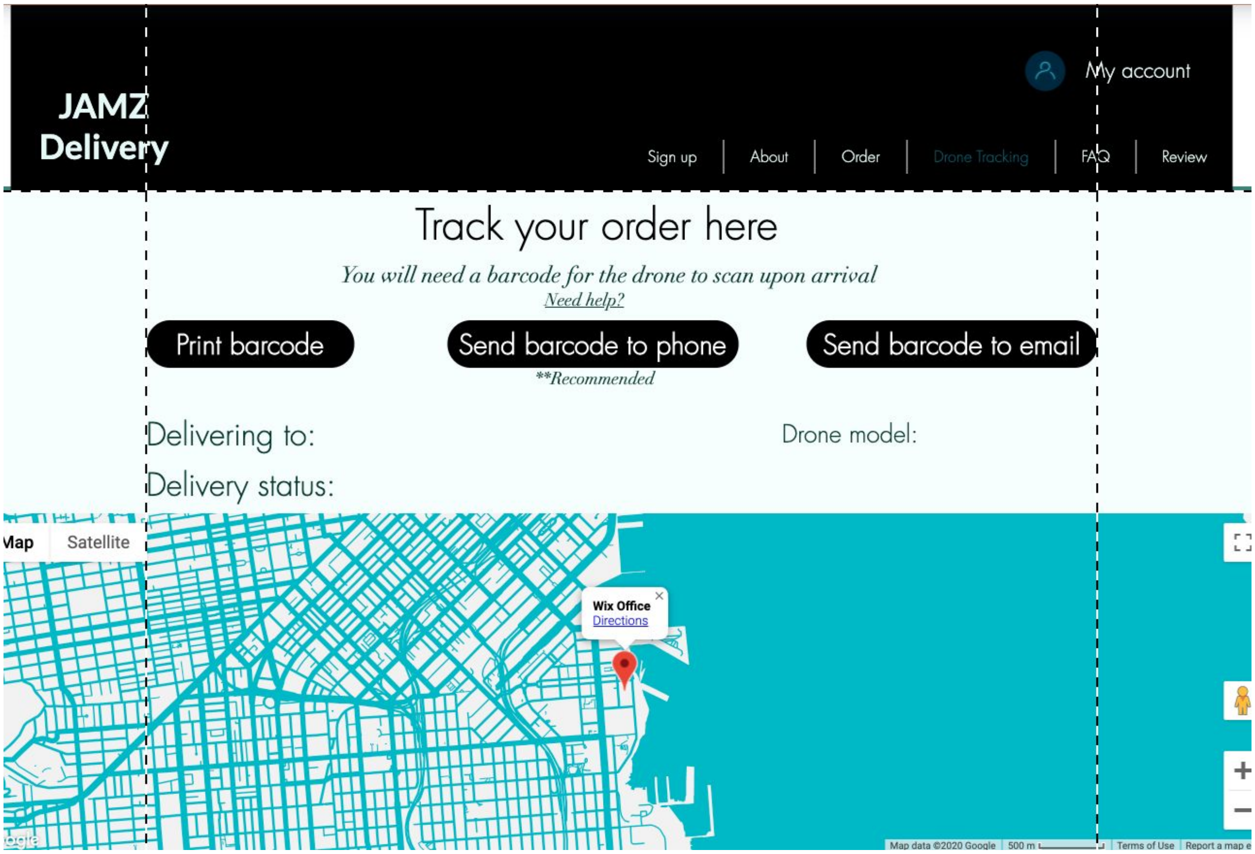
Chicken Salad $9.99
I'm a dish description. Click "Edit Menu" to open the Restaurant Menu editor and change my text.

Chickpea Couscous Salad $9.99
I'm a dish description. Click "Edit Menu" to open the Restaurant Menu editor and change my text.

Roasted squash & Quinoa Salad $9.99
Fresh tuna tataki, sun gold cherry tomatoes & organic greens

Browse our menu and start adding items to your order

Online ordering unavailable



Track your order here

You will need a barcode for the drone to scan upon arrival

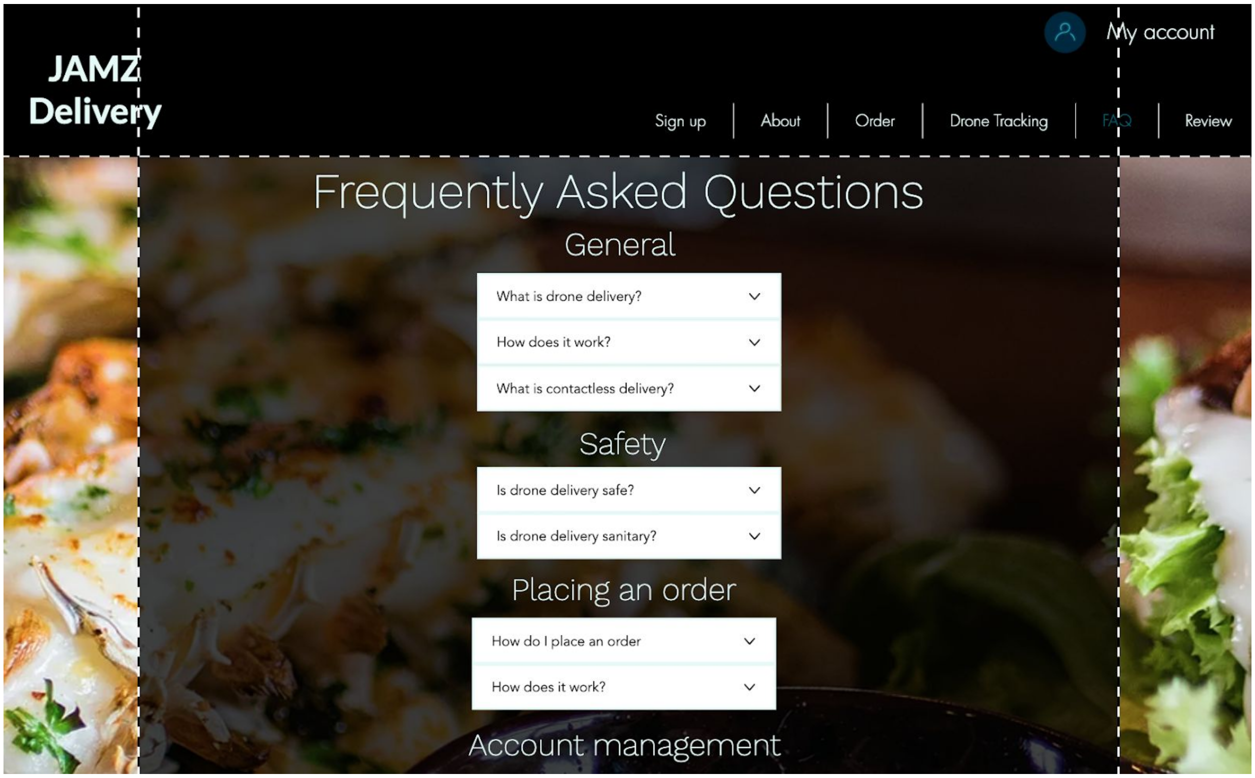
Need help?

***Recommended*

Delivering to:

Drone model:

Delivery status:



Frequently Asked Questions

General

- What is drone delivery?
- How does it work?
- What is contactless delivery?

Safety

- Is drone delivery safe?
- Is drone delivery sanitary?

Placing an order

- How do I place an order
- How does it work?

Account management