Problem Statement:

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.

Customer User Interface Needs:

Compatibility:

- "Looking for a customer UI, either in as a website, an Android or an iOS application"
 - Need: An application that is compatible with Android or iOS, or a website(web app) (5)

Tracking of drone:

- "An interactive map so that the users can track their order"
 - Need: A map that tracks the status of the drone during a delivery (5)
 - No need for distance calculations, just the status (ex. Displays information that the order has been picked up, that the order has arrived ...)
- "Looking for [a map] that is very similar to Ubereats"
 - Need: The map feature of the application is similar to that of Ubereats, therefore it shows the live location of the drone, and the status of the drone (4)

User Authentication:

- "You can have a basic login page"
 - Need: A simple page that allows users to log in to the application (5)
 - Users are able to create accounts and include information such as their name and address
- "A questionnaire [about the user's allergies, or any additional information,] included [in the login page] would be great"
 - Need: When users create their account, they are able to include additional information, such as dietary restrictions or handicaps (4)

Layout of application:

- "Menu item selection"/"a listing of restaurants and items"
 - Need: Application includes a drop down menu that displays available restaurants and their items, as well as having the restaurants being sorted by category (5)
- "A shopping cart where users can hold [...] the items that they want to order and be able to [...] hit the checkout button"
 - Need: A function that allows users to place their items into a feature, like a cart, prior to ordering. Users will also be able to click an order button once they are done (5)
- '[Developing the UI] should be more form than function"
 - Need: UI focuses more on the displays than the functionality (5)
- "Over everything, we want very [...] simple functionality, [...] yet have the full functionality"
 - Need: Application is simple and easy to use while also possessing adequate functionality (5)
- "Very modern, sleek [...]. Our golden standard right now [...] is Skipthedishes"
 - Need: Application is similar to Skipthedishes in terms of functionality and layout. Application has a modern and sleek design (5)
- "A natural mapping to the real world as much as possible, [something] that makes sense to the user"
 - Need: Application that the users find understandable and simple. (4)
- "A balance between innovation and not attempting to reinvent the wheel"
 - Need: Application has a simple design, but incorporates innovative features (5)

Customer feedback:

- "[Including a customer feedback feature] would be wonderful"
 - Need: A feature that allows customers to provide feedback (4)
 - Feedback for either the application, or the business
 - The system prompts the user for feedback, or a simple box that allows the user to type in whatever they wish
- "A star rating is prime. Something that we definitely need"
 - Need: A feature that allows users to rate the application using a star rating method (3)

- Can be a 5 star rating method
- 'We need to have the ability for the customer to send us criticism. If we can implement that as part of the application, that would be great'
 - Need: A feature that allows users to send personal feedback about the application (3)

Verification:

- "A button or any form of confirmation that the customer has received the order"
 - Need: A function, like a button, for the customer to confirm that they have received the order (5)
 - Shows the business as well that the customer has received the order
 - Button should also indicate that the customer is satisfied with the order, if not, there should be another function showing that they require assistance
- "QR codes would be too small [...], something [...] easily recognizable by computers [...] and [customers] just display it on their phone screen and point it at drone and the drone will recognize the [customer]"
 - Need: A function that displays a large code on the customer's phone screen for the drone to recognize (5)
 - Graphic should take up most/all of the phone screen.
 - Code can be a barcode

Customer assistance:

- "If you're able to send out an alert message on your phone as part of the UI to inform the customer that there has been an issue [with the drone], that's good enough"
 - Need: A function that can send a message informing the customer that there has been an issue with the drone (4)
 - Informs customers of any delays or cancellations
- "A FAQ is a very good idea"
 - Need: UI contains a FAQ section for users (3)

Additional features:

- "If you're able to incorporate both official languages, that is something nice"
 - Need: Application is able to translate both English and French (3)
- "Implement a button that signals to the drone to emit a sound [for the visually impaired]"
 - Need: Application has a feature, like a button to press, that notifies a person who is visually impaired that their order has arrived (2)
- "Report stolen drone as part of the application"
 - Need: Application has the ability for users to report to the service that a drone has been stolen (2)
 - Can also report when the drone has been vandalized or damaged

Benchmark designs:

A couple benchmark designs for food delivery are Uber eats and SkipTheDishes. As the clients have mentioned several times during the initial client meeting, these are the types of UI's they are using as their own personal benchmarks. Uber eats' and SkipTheDishes' interactive map is an attractive feature for the clients as it displays the ETA of the driver and the location of the driver, however the clients only want the map to display the location of the driver, not the ETA. They also like how these Ul's display the status of the order, with information like if the driver has picked up the order and if they are on their way to the customers' house. This feature is popular amongst users as they are able to track the status of their orders in its entirety. On the other hand, Uber eats and SkipTheDishes have received criticism from its users as they have noted several instances where they did not receive their orders and did not acquire their requested assistance. The JAMZ UI is suggested to incorporate alerts that can be sent out to users in the case that their order cannot be delivered and will provide a feature that allows users to send messages (criticism, reviews, or questions) to the operator of the drone. In terms of the layout of the application, the clients have stated that "Uber eats is a good example of layout", however, they also noted that the Uber eats drop down menu is "a little confusing", with SkipTheDishes being their "golden standard". SkipTheDishes contains organized categories for different restaurants which adds to the simplicity of the app, a characteristic that JAMZ is looking for. The simple feature is a common characteristic in many UI's, not just in food delivery but in online shopping as well, such as Amazon. The more simple a UI is, the more accessible it is to a wider range of users. Moreover, since the business is drone operated, the user will need a way for the drone to recognize that it is them who has placed the order. A suggestion is to display a barcode on the screen, similar to applications like Snapchat that contain a barcode scan which allows users to add one another. This feature is notable for its ease of use by its users. However, the scan used on Snapchat is too small, therefore the JAMZ UI would need a barcode that is much larger as it would contain a lot more data than that of a conventional QR code.