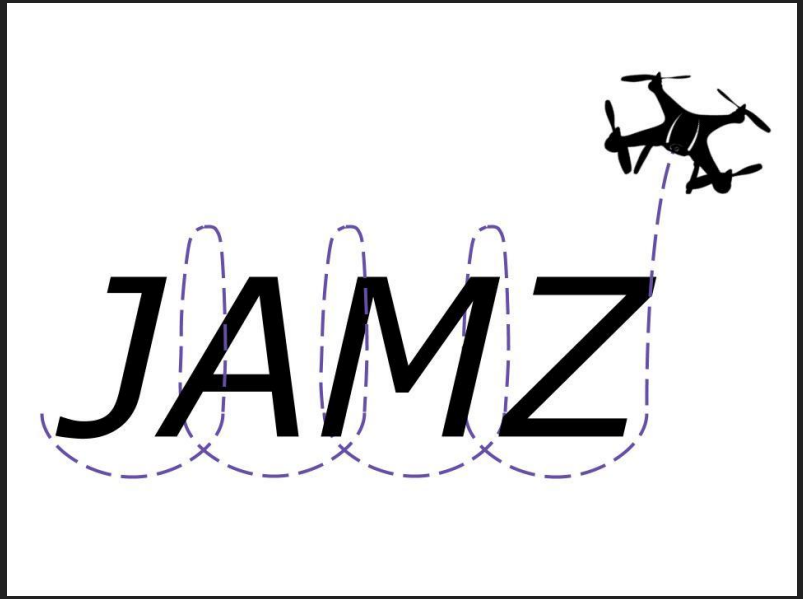


Drone Delivery Service

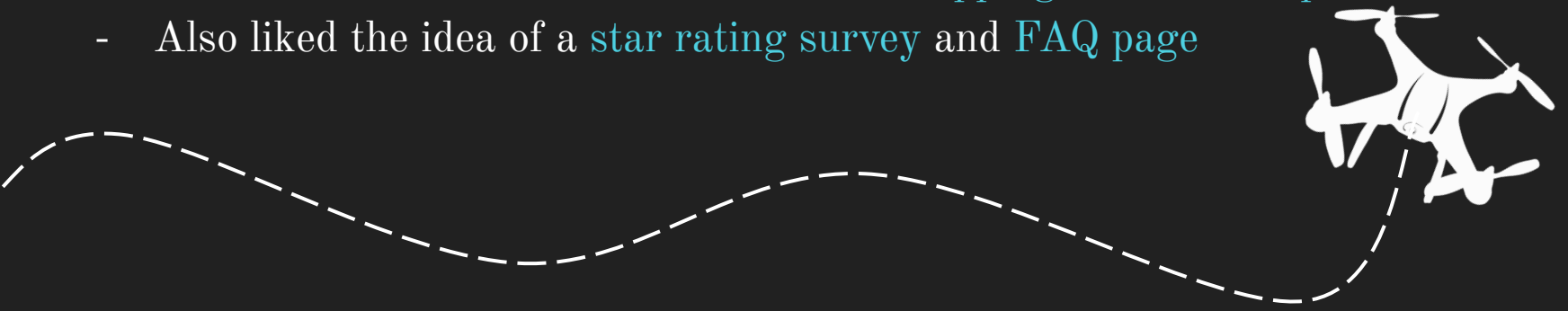
Android App Customer UI

Group 12-United Ottawa

Empathize

Empathize - **Initial Client Meeting**

- Simple, user friendly and modern
- 3 essential features: list of restaurants, shopping cart, and map
- Also liked the idea of a star rating survey and FAQ page



We translated this information into a list of interpreted needs...

Empathize - **Benchmarking**

Food delivery service	UberEats	SkipTheDishes	DoorDash
Company	Uber Technologies, Inc.	SkipTheDishes Restaurant Services Inc.	DoorDash Inc.
App Size	~230 MB	~70 MB	~95 MB
GPS-Tracking	Gurafu and Flux	-	Galton (built on OSRM and concaveman)
Coding Language	Python, Node.js, Go, and Java	Java	Kotilin and Java
Average Star Rating (iOS)	4.6/5	4.6/5	4.6/5

Empathize - **Needs Identification**

Priority Rank	Need
1	List of restaurants and menu items
1	Map showing location updates
1	Shopping Cart
2	Login and Create your Profile
3	Star-Rating and Customer review
4	Food Categorized by Cuisine
5	Function to “favourite” restaurants, and make recommendations
6	A button to confirm the food has been delivered
7	Frequently asked questions
8	Option to report a food/delivery issue
9	Alert function if there is an issue with delivery
10	Accessibility features
11	Offer app in another language

Define

Define - **Problem Statement**

Jamz drone delivery service requires an **user-friendly app** that will allow customers in **rural areas** to easily order food through an online interface. It should allow the customer to **customize their profile, view a variety of restaurants, select the food options they want, and track their order in real-time with ease.**

Define - **Design Criteria**

Priority Rank	Need	Design Criteria
1	List of restaurants and menu items	-Include API for restaurant listing within a specific radius. -Efficient -Screen size
1	Map showing location updates	-Include API for location tracking (Using Google Maps for Android or Core Location Framework for iOS). -Screen size
1	Shopping Cart	-Function to allow users to select items for purchase -User friendly -Screen size
2	Login and Create your Profile	-Offer login via email, Google, Facebook, etc. -Latencies
3	Star-Rating and Customer review	-Connects customer to the business and delivery service -Screen size

Define - **Design Criteria**

Priority Rank	Need	Design Criteria
4	Food Categorized by Cuisine	-User friendly -Efficient -Screen size
5	Function to “favourite” restaurants, and make recommendations	-Personalizable -User friendly -Screen size
6	A button to confirm the food has been delivered	-Connects customer to the business and delivery service
7	Frequently asked questions	-User friendly
8	Option to report a food/delivery issue	-Connects customer to the business and delivery service
9	Alert function if there is an issue with delivery	-Connects customer to the business and delivery service
10	Accessibility features	-User friendly -Accessible
11	Offer app in another language	-User friendly -Accessible

Define - **Target Specifications**

	Design Specifications	Relation	Value	Units	Verification Methods
Functional Requirements					
1	Include API for restaurant listing within a specific radius.	<	10	km	Test
2	Include API for location tracking.	=	yes	N/A	Test
3	Function to allow users to select items for purchase.	=	yes	N/A	Test
4	Offer login via email, Google, Facebook, etc.	=	yes	N/A	Analysis
5	Connects customers to the business and delivery service.	=	yes	N/A	Test
6	Able to plug into the backend framework.	=	yes	N/A	Test

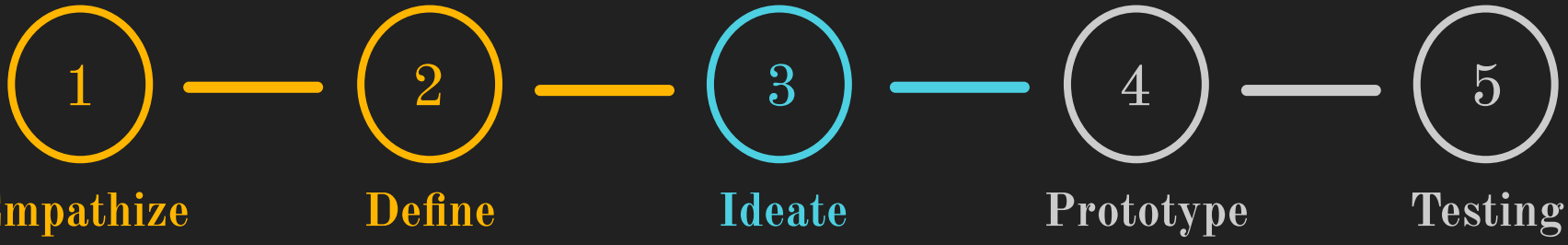
Define - **Target Specifications**

	Design Specifications	Relation	Value	Units	Verification Methods
Non-Functional Requirements					
1	Aesthetic	=	yes	N/A	Test
2	User friendly	=	yes	N/A	Test
3	Efficient	=	yes	N/A	Test
4	Personalizable	=	yes	N/A	Test
5	Accessible	=	yes	N/A	Test
6	Buildable	=	yes	N/A	Analysis

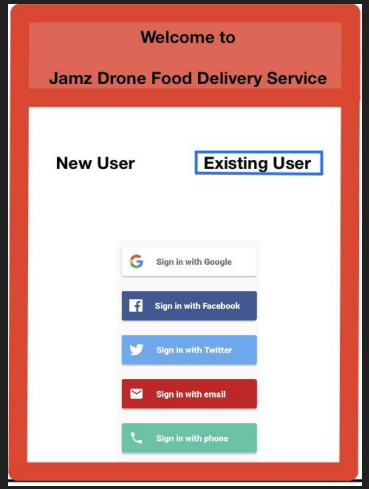
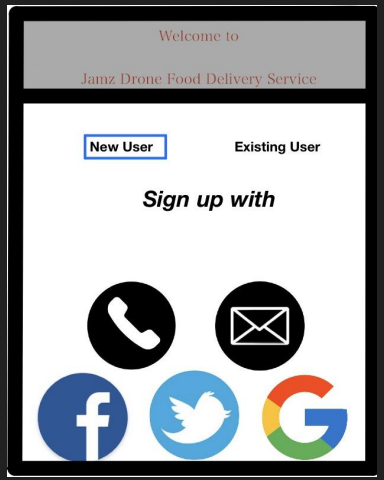
Define - **Target Specifications**

	Design Specifications	Relation	Value	Units	Verification Methods
Constraints					
1	Cost	<	100	$	Estimate, final check
2	App Size	<	100	MB	Analysis
3	Screen size	<	3	Inches	Test
4	Latencies	<	10	Seconds	Test

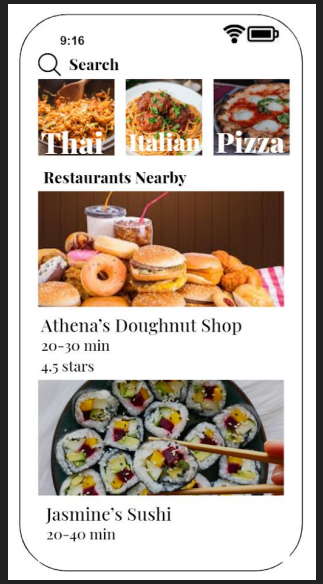
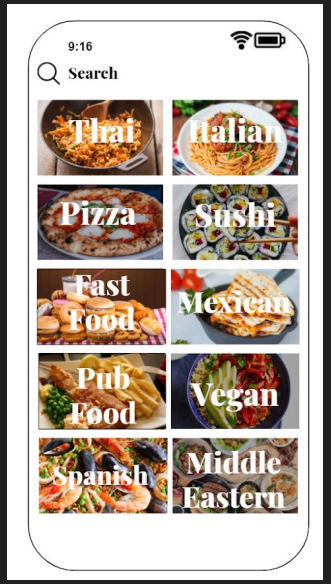
Ideate



Ideate - Log-in Page

Idea	A	B	C
Image			

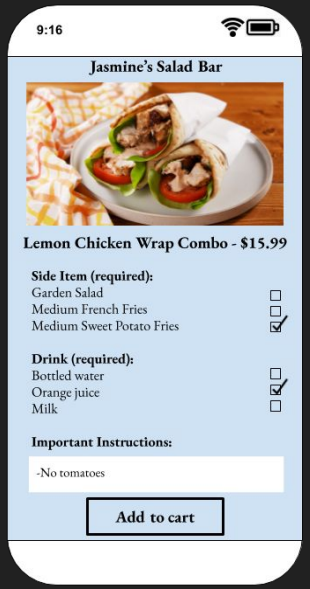
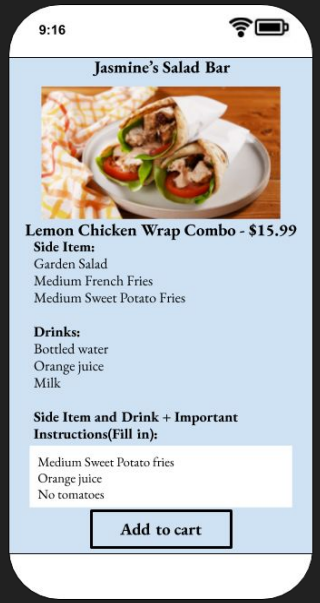
Ideate - **Restaurant List**

Idea	A	B	C
Image			

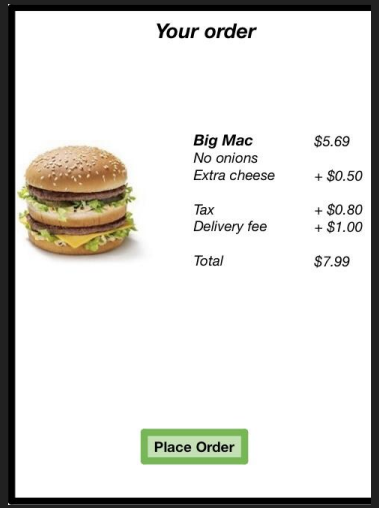
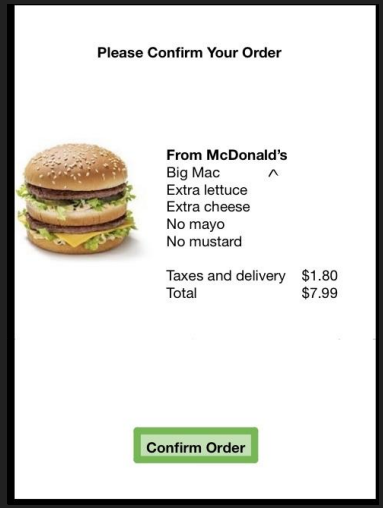
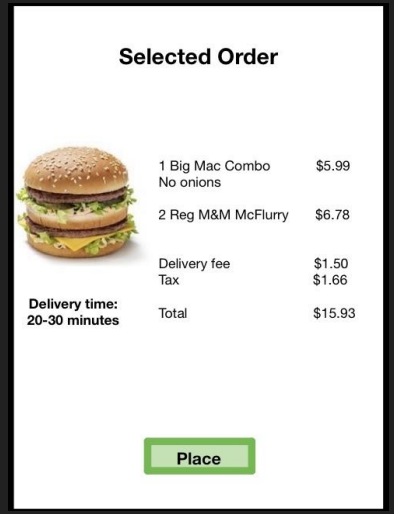
Ideate - Menu Design

Idea	A	B	C
Image			

Ideate - Item Order Page

Idea	A	B	C
Image			

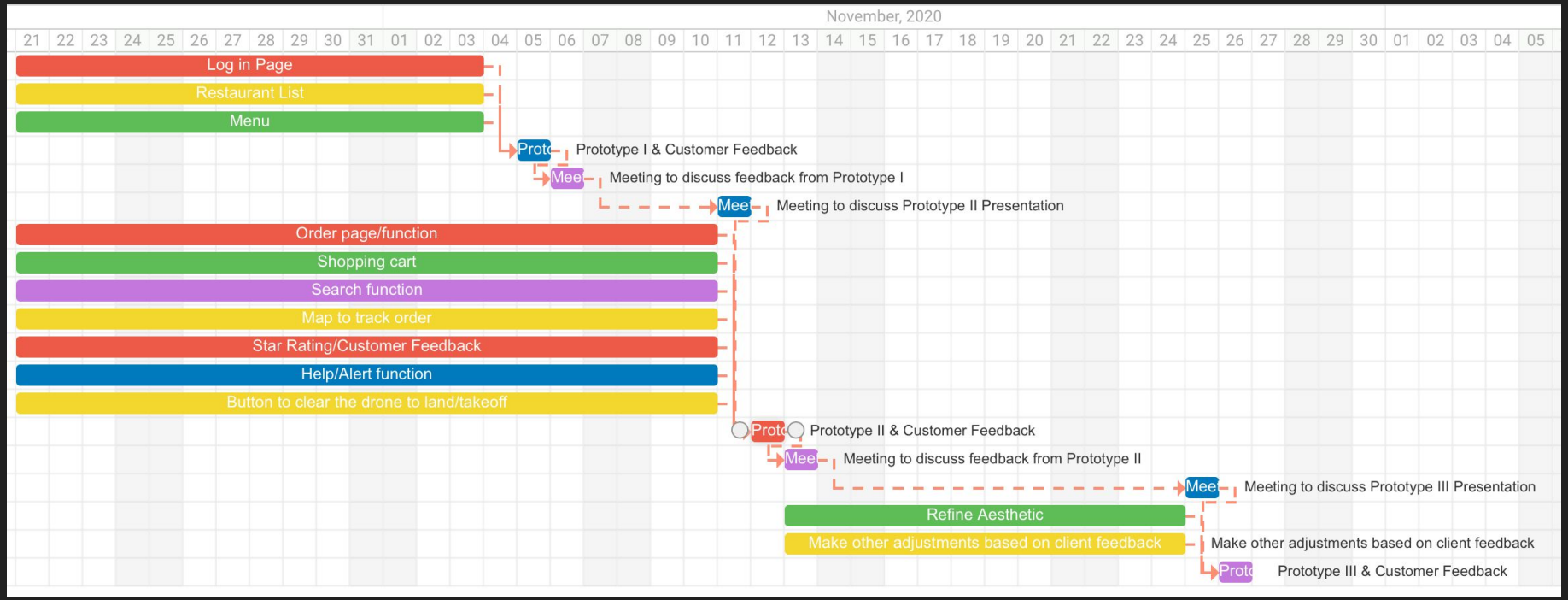
Ideate - Shopping Cart

Idea	A	B	C
Image			

Ideate - **Map**

Idea	A	B	C
API	TomTom's NavApp and MapLibrary APIs: Maps SDK for Android	Google Maps: Maps SDK for Android	MapBox API: MapBox Navigation API and MapBox Geocoding API

Project Plan - Schedule



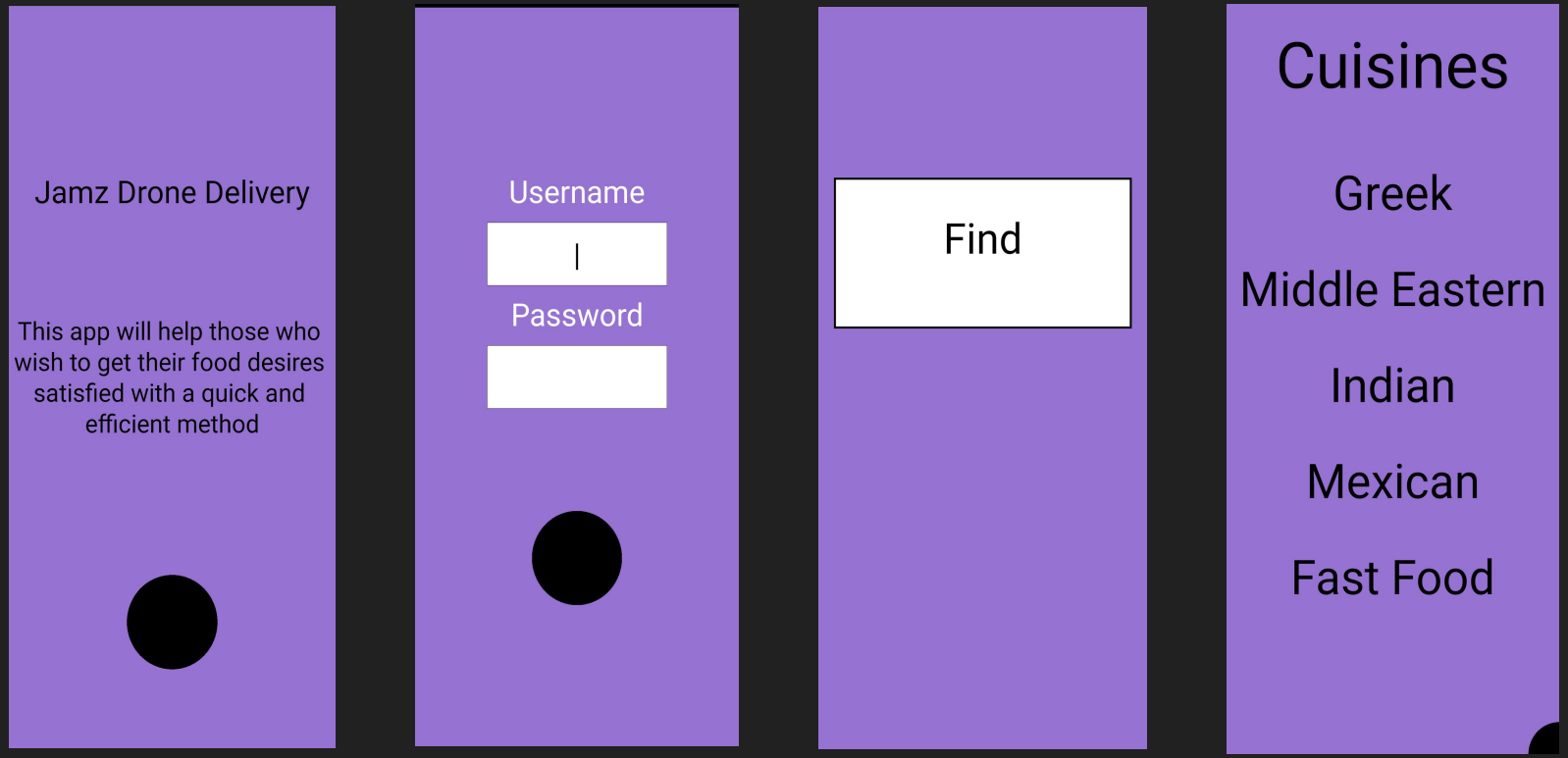
Project Plan - **Cost**

Item	Cost	Justification
Maps SDK for Android by MapBox	Free for up to $25,000 monthly active users	Will allow us to create customizable maps for the user. Will be free for us, but will eventually be a cost that Jamz must account for as their app becomes popular.

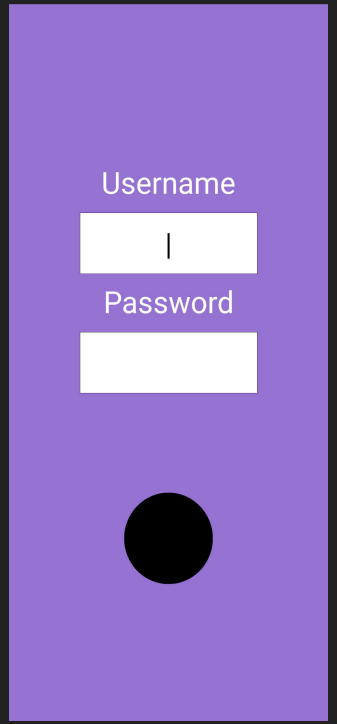
Total: $0

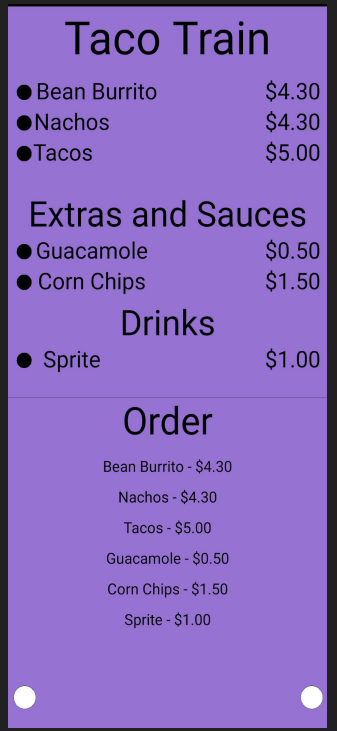
Prototype

Prototype I and Customer Feedback

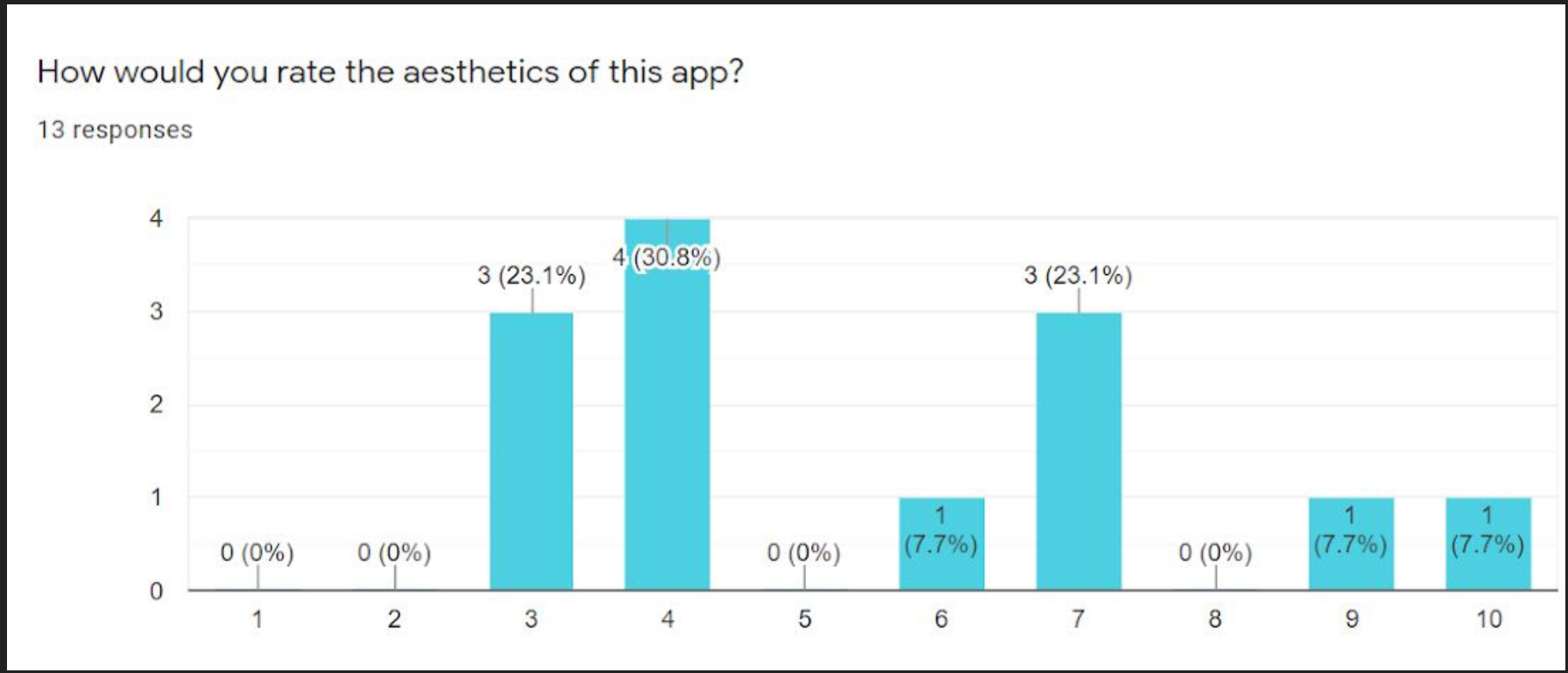


Prototype II

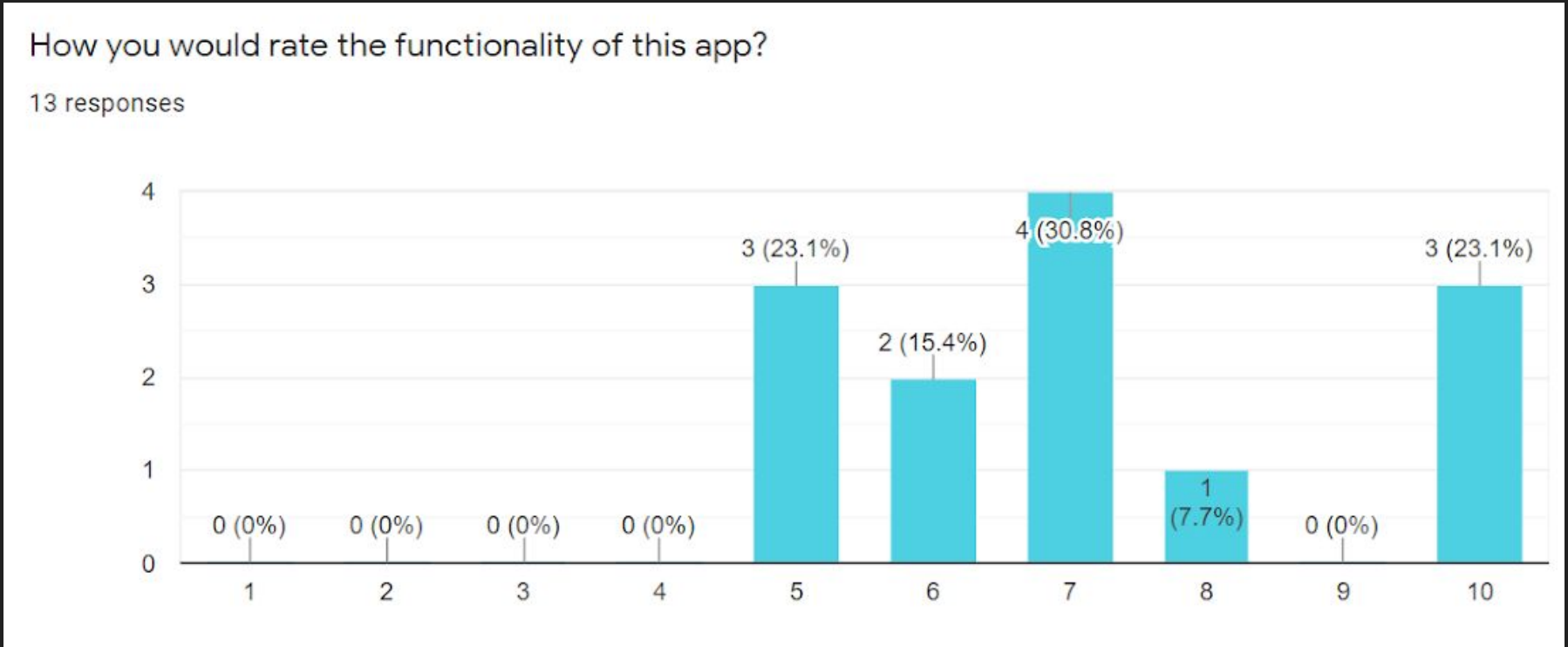




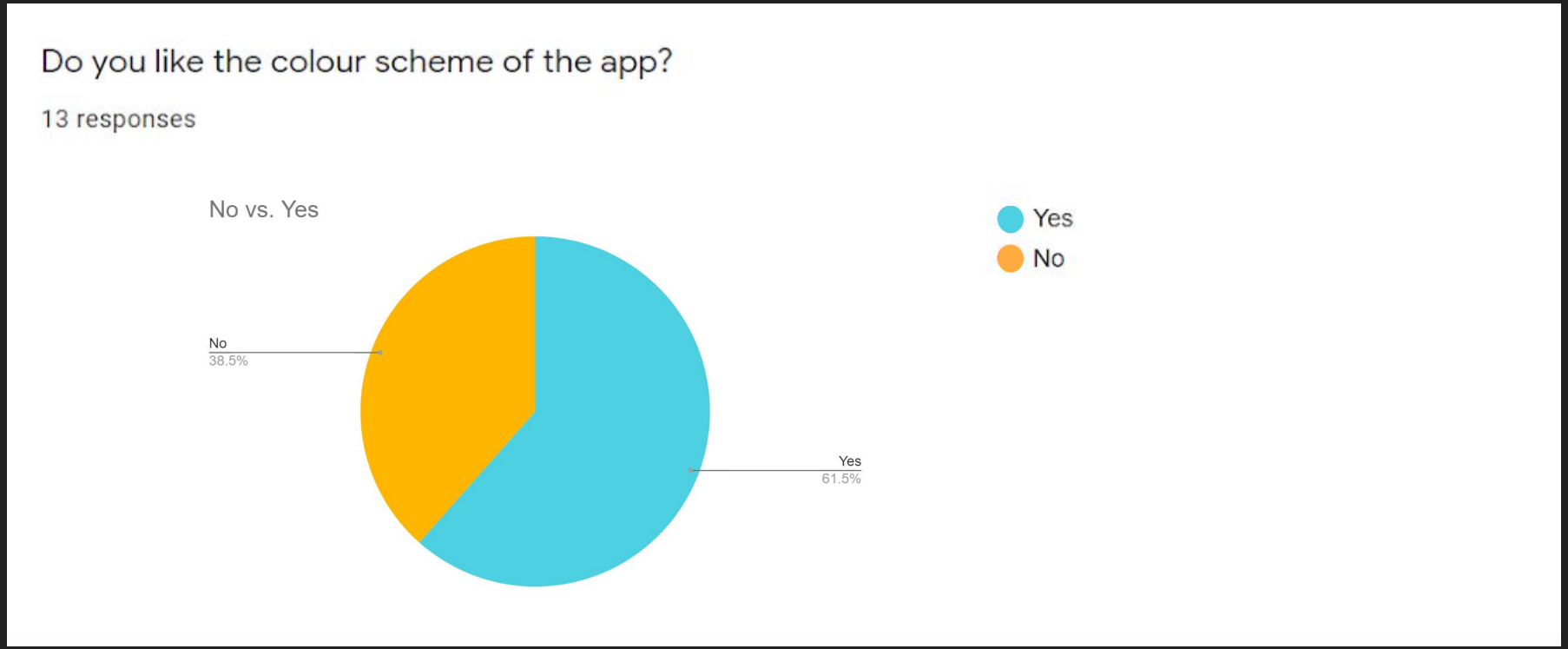
Prototype II - Customer Feedback



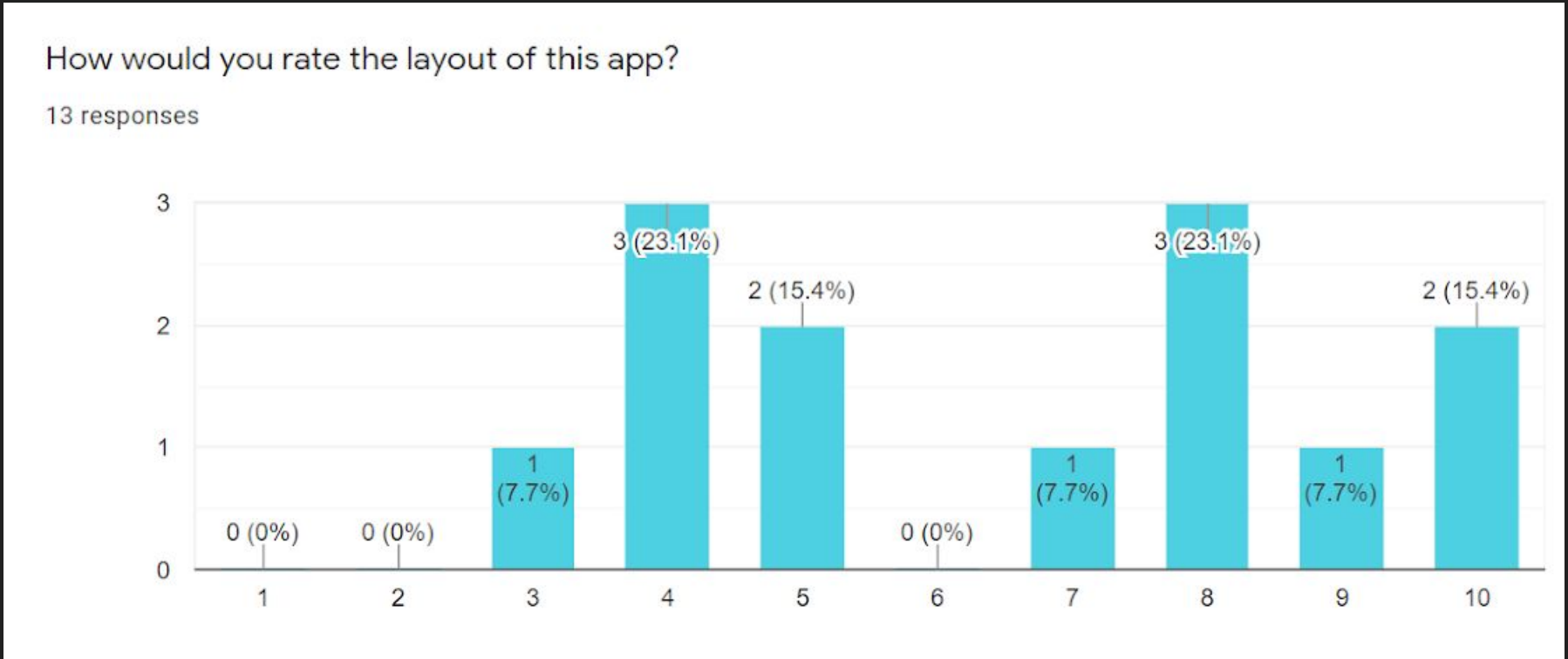
Prototype II - Customer Feedback



Prototype II - Customer Feedback



Prototype II - Customer Feedback



Prototype III

Final Design

Prototype III

Jamz Drone Delivery

Username

Password

Cuisines

Mexican Restaurants

Got Guac

Taco Train

Indian Restaurants

Amma's Kitchen

Abishek's food

Insert screen recording

Prototype III

Got Guac

- Chicken Quesadillas $6.40
- Enchiladas $5.30
- Taco $5.00

Extras and Sauces

- Guacamole $0.50
- Corn Chips $1.50

Drinks

- Coca-Cola $1.00

Order

Chicken Quesadillas - $6.40

Enchiladas - $5.30

Taco - $5.00

Guacamole - $0.50

Corn Chips - $1.50

Coca-Cola - $1.00

Payment Options

PayPal

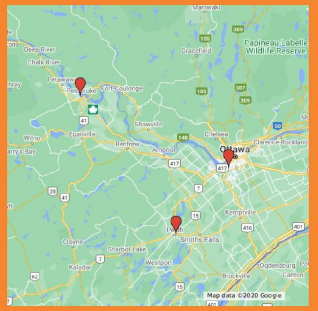
Email

Password

Pay

Additional Information

Estimated time of arrival: 17 Minutes



Hello, your food has arrived

Please scan the following code to take your food

Once scanned press the button to proceed

Please press the button to retrieve your food

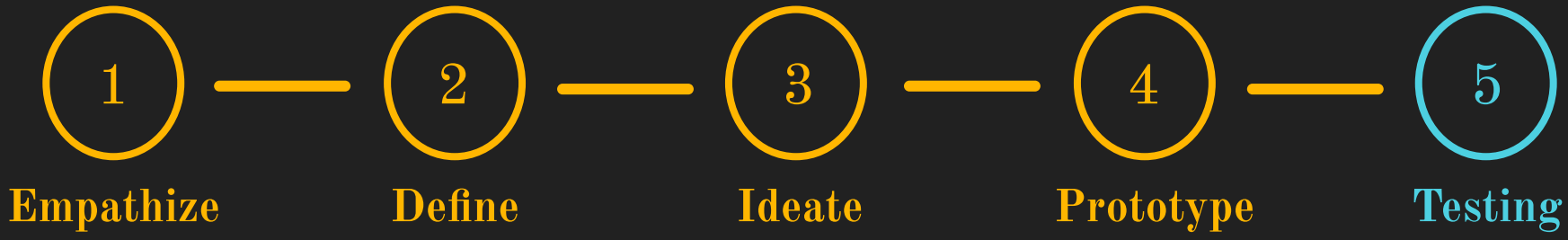
Click the following button once you have taken your food to allow drone to takeoff. Please be 5m away from the drone

Thank you for using Jamz Drone Delievery Press the button to head to the cuisine list

Prototype III - Customer Feedback

Insert once we are done collecting

Testing

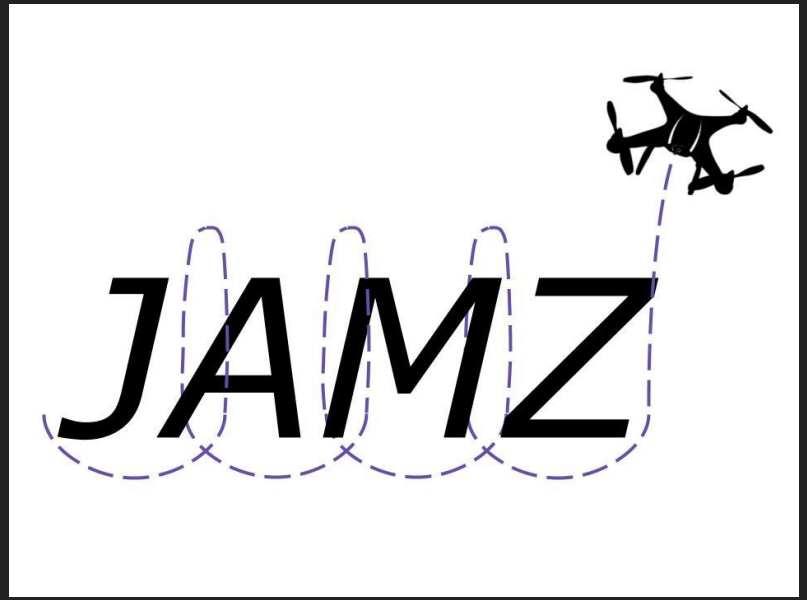


Testing

- Latency test
- Survey Based on Layout, Functionality and User Experience
- Survey Based on Aesthetics of App
- App Size
- User-Friendliness Survey
- Personalizability Aspects of App

Future

Insert after prototype III is complete



Questions?