Deliverable D Project Group A6

Ahmad Al-Abed

Autumn Shaw

Harry Yang

Kierra Caminiti

Olivier Carriere Westerheide

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Abstract

For this deliverable, each team member came up with three conceptual designs for the account creation, homepage layout, and the map. We then condensed our concepts and picked the best of each. Furthermore, a detailed description was written for each of the three concepts showing the benefits and drawbacks of using these concepts for future prototyping.

Table of Contents

1 Introduction 5

2 Problem Statement 5

3 Benchmarking 5

3.1 Technical Benchmarking 5

3.2 User Benchmarking 6

4 Design Criteria and Requirements 6

4.1 Design Criteria 6

4.2 Functional Requirements 7

4.3 Constraints 8

4.4 Non-Functional Requirements 9

5 Selected Design Solution 10

5.1 Creation of Account 10

5.2 Map for Tracking 11

5.3 Layout of Homepage 11

6 Conclusions and Recommendations for Future Work 12

7 References 13

8 Appendices 13

1 Introduction

After meeting with our client, our team has decided that an interactive map, a sign in page, and an appealing homepage are the client's top priorities. The main goal of this report is to share ideas that were discussed within our group and to explain which ideas we decided to implement. As a team, we created numerous general concepts for each topic. Each concept was then evaluated against our design criteria. Upon this analysis, a single global concept was recognized for further development. This deliverable explains how the amalgamation of these general concepts encompass JAMZ's greatest needs.

2 Problem Statement

JAMZ needs a simple, sleek, and intuitive mobile app user interface that will allow suburban and rural users to place drone delivery food orders. The app must be capable of processing online transactions while also allowing the users to view the selected items before the order is placed (shopping cart) as well as track the location of the drone in real-time.

3 Benchmarking

3.1 Technical Benchmarking

Specifications	**Skip The Dishes**	**Uber Eats**	**DoorDash**
Cost	Free	Free	Free
Optional subscription fee	N/A	$9.99 (EatsPass)	$9.99 (DashPass)
Delivery/service fees	Depends on restaurants	Depends on restaurants	Depends on restaurants
Layout	Food genres displayed at the top Able to sort based on various criteria	User inputs address at the top Website navigation tabs are at the bottom	Food genres displayed at the top Sorting options below
Feedback system	Skip Score	Users are able to rate the restaurant/food on a 5-star scale	User can provide feedback/ratings for overall delivery in "deliveries" tab
Order	Yes, user can track order	Yes, user can check the status of	Yes, user can track their

tracking	through link in confirmation email	their order	order on a map

3.2 User Benchmarking

Specifications	Skip The Dishes	Uber Eats	DoorDash
Cost	Commonly double charged or paying extra fees	Often overcharged or mischarged Verification charges	Offer promo codes (not always reliable)
Time	Some orders take hours to arrive, users aren't always notified when delivered	Some orders take hours to arrive, some are cancelled after waiting for hours	Drivers do multiple deliveries at once, takes longer
Ability to contact company	Customer service does not provide solutions to, or compensation for issues involving payment/order issues	The support page is very difficult to locate, there are no direct links/emails/phone numbers clearly listed. Once users find support outlet, customer service manages to provide compensation for most issues.	Users are able to contact drivers to give clear instructions

4 Design Criteria and Requirements

4.1 Design Criteria

1 is Highest Priority, 5 is lowest priority

Priority	Need	Design Criteria
1	Track orders	Map GPS
1	List and be able to purchase selected items	"Shopping cart" feature "Checkout" option when ready
1	Store member info (address, card #, phone, name)	Member accounts/login Memory within accounts to save data
1	Track whether drones are accessible	Real-time updates to the app

1	List the businesses that the user can order from	GPS/location services (to see whether business is in 10km range) Page on app to list options
1	A way for the drone to land	Barcode/Symbol that takes up the full screen
2	Customers can ask questions	Support: able to reach out and ask for help/FAQ
4	Bilingual	Translate from English to French
4	Customer Feedback	Star system and comment box to give feedback
5	Returns/Cancellations/Changes to Order	Confirm order before sending it in, cancel button
5	Suggest restaurants/businesses based on user's previous orders	Memory within accounts to save data Store previous orders
5	Service should be accessible	App that works on all/most smartphones

4.2 Functional Requirements

	Functional Requirement	**Relation**	**Value**	**nits**	**Verification Method**
1	Place a delivery food order on a mobile app	=	Yes	N/A	Test
2	Has the capability to allow the user to make an account and store several key parameters including name and address.	>	5	Parameters	Test
3	Must have a page that can track the location drone currently delivering the order by **updating** the Google Maps API very often	<	30	Seconds	Test
4	Must be able to view each restaurant within the specified **range** of the customer that is available for delivery	≤	10	km	Test
5	A "Shopping Cart" feature that allows users to view currently selected items	=	Unlimited	Number of Items	Test

6	Must be able to display the “progress” of the order throughout progress bar with **checkpoints**	>	3	Steps completed versus total steps required	Test
7	Must be able to display the total **cost** of the order	=	Unlimited	$	Test
8	Must be able to make **multiple modifications** to food orders	=	Unlimited	modifications	Test
9	The user must be able to place an order that will be processed quickly	<	20	seconds	Test

4.3 Constraints

	Design specifications	**Relation (=,< or>)**	**Value**	**Units**	**Verification Method**
1	Size of the application	<	11.5	MB	Test
2	Page size (screen size)	<	6	inch	Test
3	Pixel Size	>	2960x1440	px	Test
4	Time(deadline)	=	By Dec 3rd	Days	Test
5	Budget	=	100	Dollars	Test
6	Language	=	N/A	English and French	Test

7	Operating System	=	Android	N/A	Test

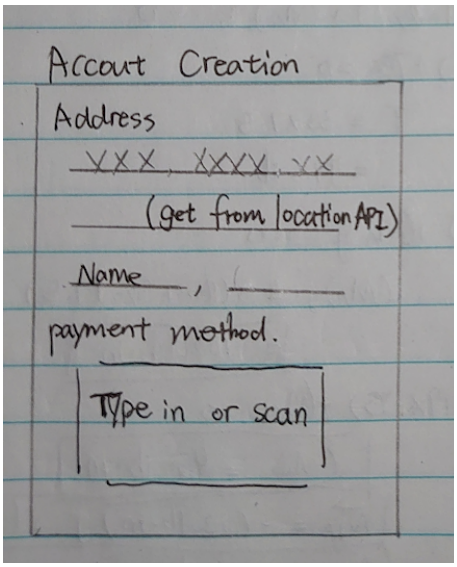
4.4 Non-Functional Requirements

	Non-Functional Requirements	**Relation**	**Value**	**Units**	**Verification Method**
1	The **number of tags** at the bottom of the main page shouldn't be more than 4; otherwise, disturb the use.	**<=**	**4**	Pages	Test
2	**Changeable colour/ style** (aesthetics) High contrast on the text and the background so that it is easier to read and leads to less misunderstanding.	**=>**	**UberEats**. Since it doesn't have the feature of changing the color, our app could have one of these features.	N/A	Test
3	**Picture included.** What kind of picture should be included to deliver the necessary message to the customer?	**=**	**One per restaurant + some other pictures of Push notification** should be good.	N/A	Test
4	**A bilateral (or trilateral) feedback system** A feedback system that allows: Customer→Rest. Rest.→Customer and Jamz company should have access to this as well. (for example, providing info to a restaurant that a customer damaged a drone on purpose before)	**=>**	**Uber** could be a good pattern of an example of this system (give a score out five after each deal.)	N/A	Test
5	**Some feature contents under the main tag** (favorite, fastest, discount, "try	**=>**	**Uber eat** has done a very good job on pushing feature	N/A	Test

	new", similar to favorite)		contents.		

5 Selected Design Solution

5.1 Creation of Account

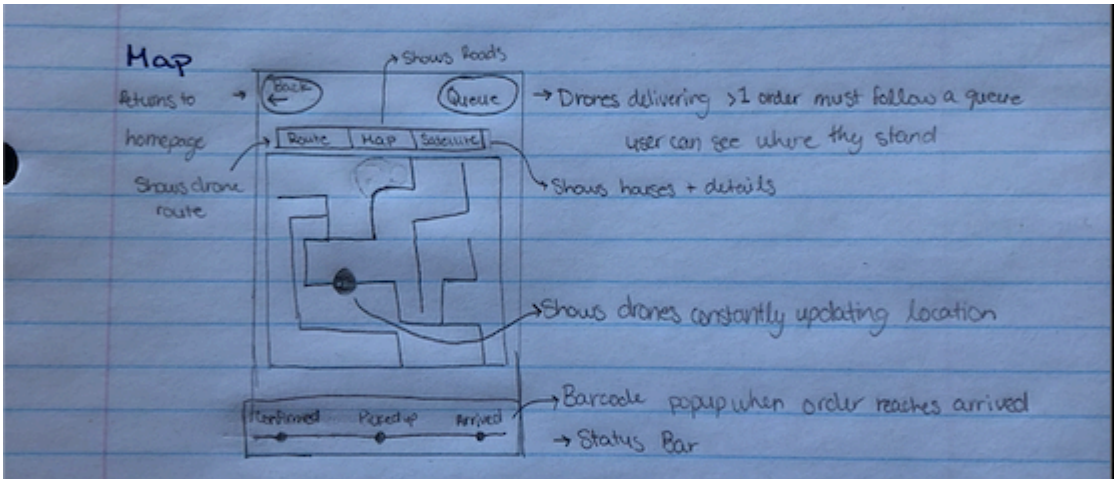


Created by Harry Yang

The first thing the user will encounter when opening the JAMZ application is the page prompting them to create an account. This page will ask the user for necessary info such as name, address, email address, phone number and payment method. We may also implement features to this page allowing the user to enter any important information about themselves, such as dietary restrictions or allergies.

By entering their information here, the user's data will be stored within the application's memory, so it does not have to be entered with each use.

5.2 Map for Tracking



Created by Kierra Caminiti

The Interactive Map feature on our application offers many components, allowing the user to stay up to date with the progress of their order. Users will be able to view the moving drone icon throughout the map, as well as receive live updates on the status bar at the bottom of the page.a Once the order arrives, the drone will need to identify a barcode in order to land. To simplify this requirement, once the status bar reaches “Arrived”, the user will be given the option to go directly to the page displaying that barcode.

Delivery services also often have their drivers, or drones in this case, completing multiple orders at once. Although this seems very efficient, our benchmarking proves that this concept causes some confusion as users have their orders arriving hours after it has left the restaurant. To avoid this mix-up, this page will feature a “Queue” option, allowing users to see where they stand in the line-up when their drone is delivering more than one order at a time.

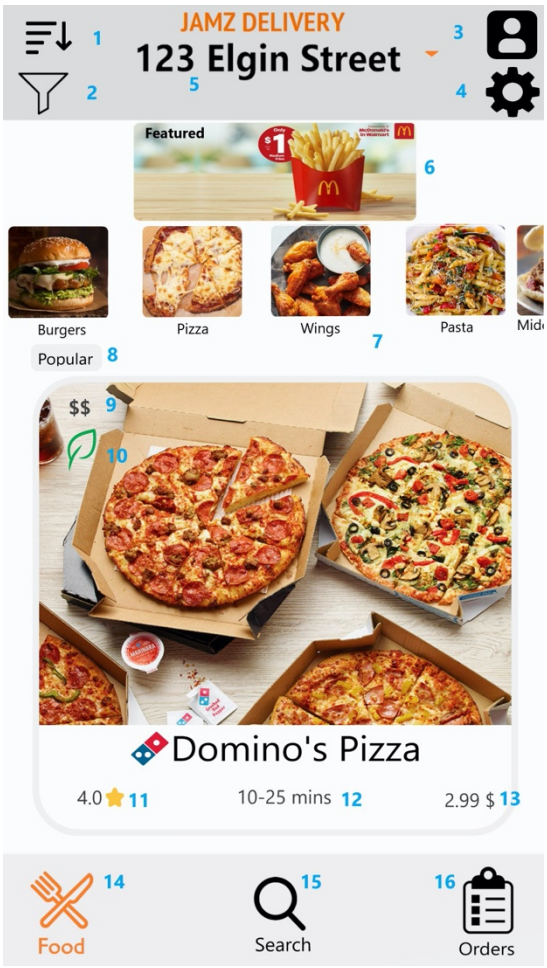
5.3 Layout of Homepage

Created by Olivier Carriere Westerheide

As the JAMZ team was explicit about Skip the Dishes having by far the best home page layout, our home page features draw heavy inspiration from the Skip The Dishes layout and design, although quite a few changes.

The Sort button (1) at the top left will contain several sort options including fastest delivery time, value (ratings compared to price), delivery fee, popular restaurants, rating and new restaurants. The Filter button (2) will contain filter options including dietary options (vegan, halal, gluten free etc). The Profile button (3) will allow the user to view and edit profile parameters including payment options, name, email, default delivery address among others. The Settings button (4) will allow the user to modify settings including language, dark or light mode, etc. The address (5) will be displayed as shown in the picture in the banner at the top, and will stay attached as the user scrolls down to avoid forcing the user to scroll to the top if he/she forgot the currently selected address. The Featured banner (6) will allow the user to view sponsored or recommended restaurants. The Cuisine menu (7) will allow the user to scroll through all different types of cuisine categorize by the app. The label (8) will display the how the

restaurants are currently sorted. The Price (9) and dietary options (10) will display the price class and dietary options available at the restaurant respectively. The rating (11) will display the user's rating of the restaurant. The delivery time (12) and delivery fee (13) will display the delivery time and delivery time and delivery fee respectively. The bottom 3 pages are the main pages the user will have access to which are food (14), search (15) and orders (16).



6 Conclusions and Recommendations for Future Work

After a few group discussions with analysis and polls, consequently, we come out with the best three concepts of subsystems out of fifteen initial ideas. Each subsystem holds the feature consists of basic design criteria, satisfying the demand of our client. Moreover, these features and theoretical concepts will be brought into our prototype as well as the future finished product. For the direction for the future, one of the recommended ideas is to remove the payment method function from the account creation page since it could negatively impact the customer's first impression-- We're expecting more positive modifications to improve our product.

7 References

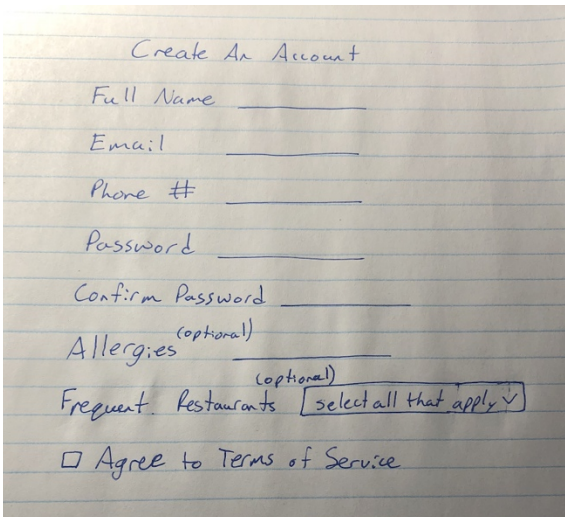
DoorDash Food Delivery (n.d.). Retrieved from https://www.doordash.com/en-US?newUser=true

Food Delivery and Takeout - Order Online from Restaurants Near You. (n.d.). Retrieved from https://www.ubereats.com/

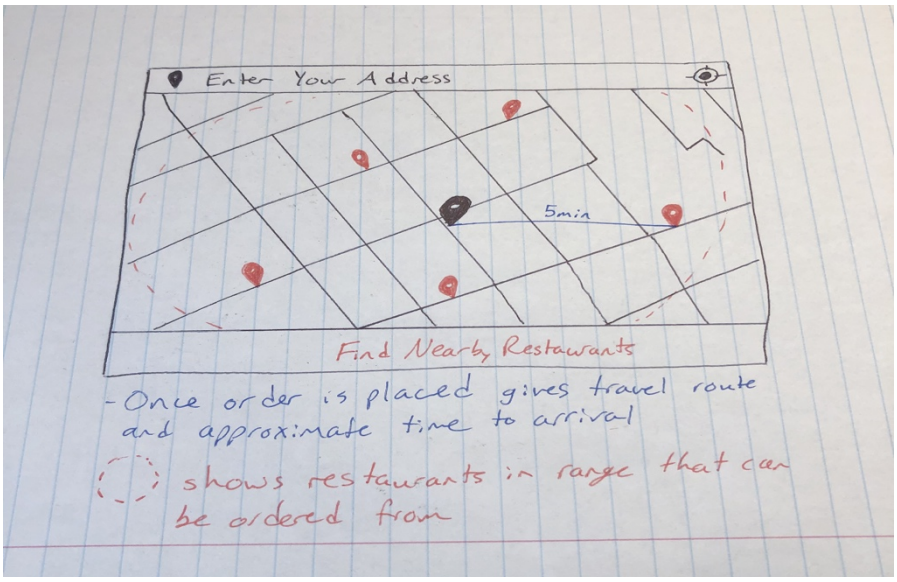
SkipTheDishes – Food Delivery (n.d.). Retrieved from https://www.skipthedishes.com/

8 Appendices

The sketches listed below were not chosen for further development since our team decided that the designs are too cluttered and do not directly line up with our design criteria. We decided to include these concepts in our report, so that we will be able to go back and review initial ideas, in case we have to modify any of our selected concepts.



Created by Autumn Shaw



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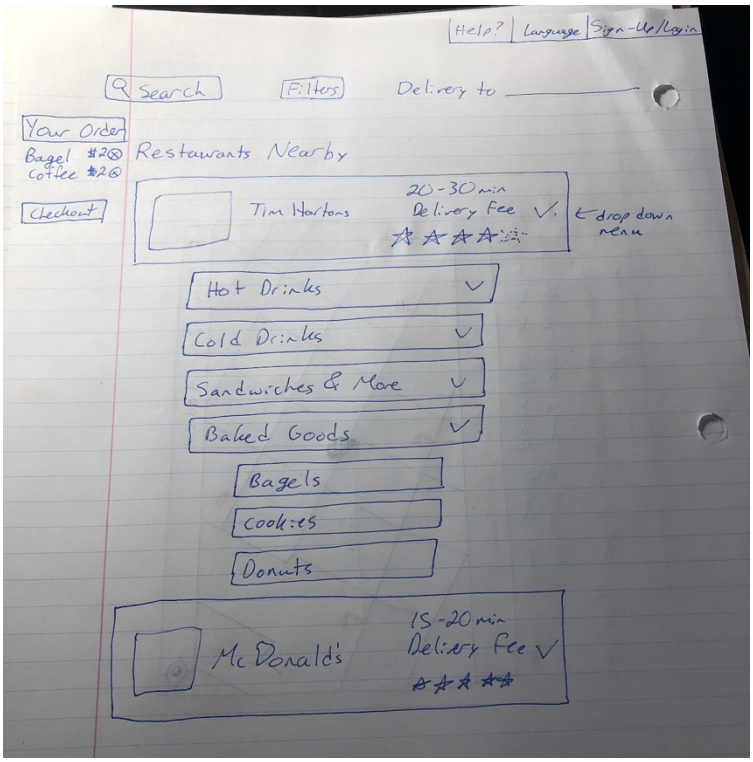

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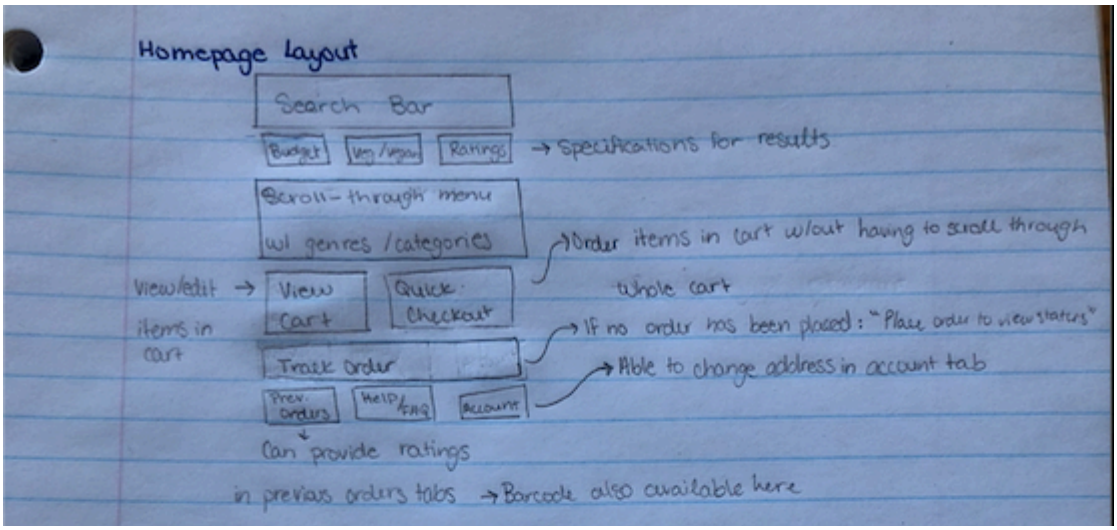

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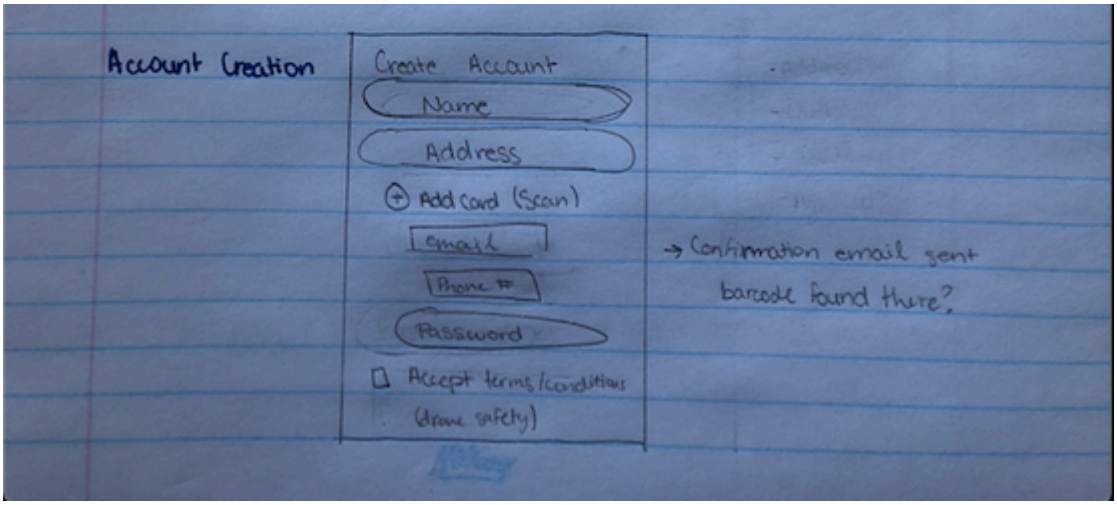

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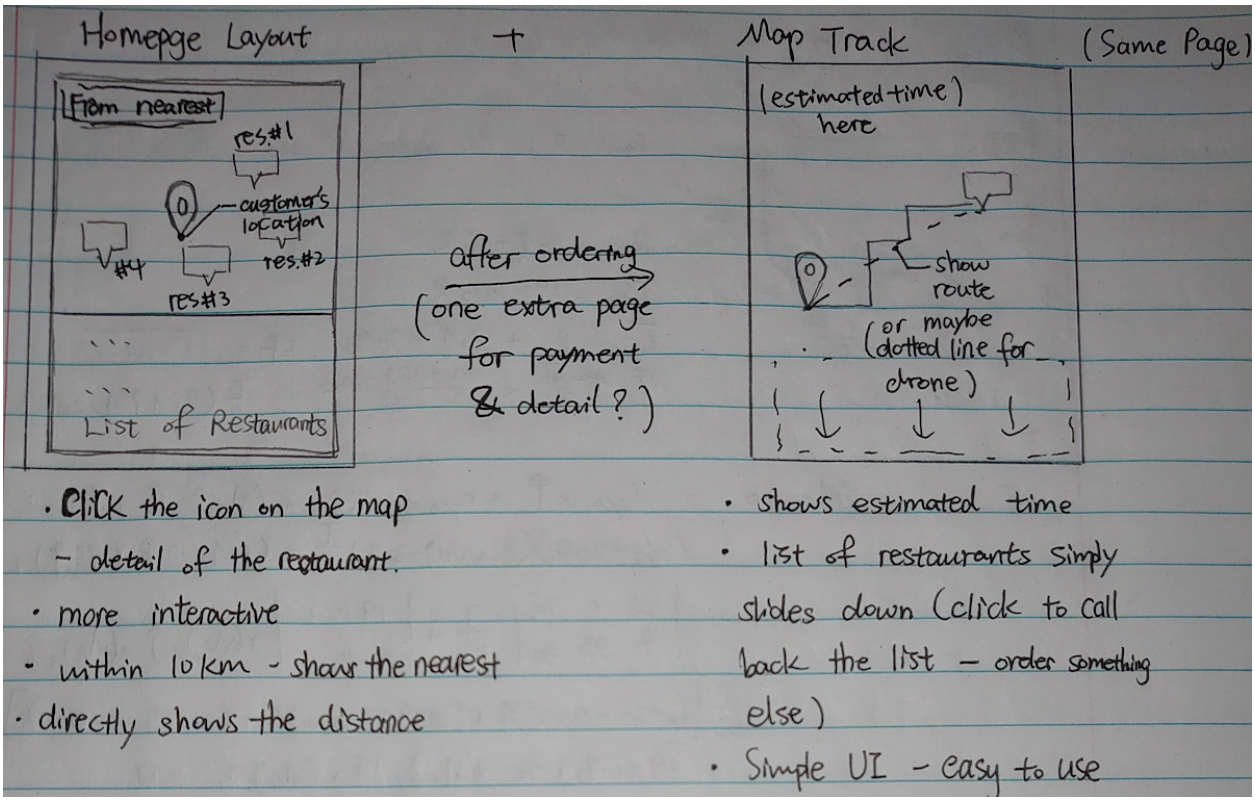
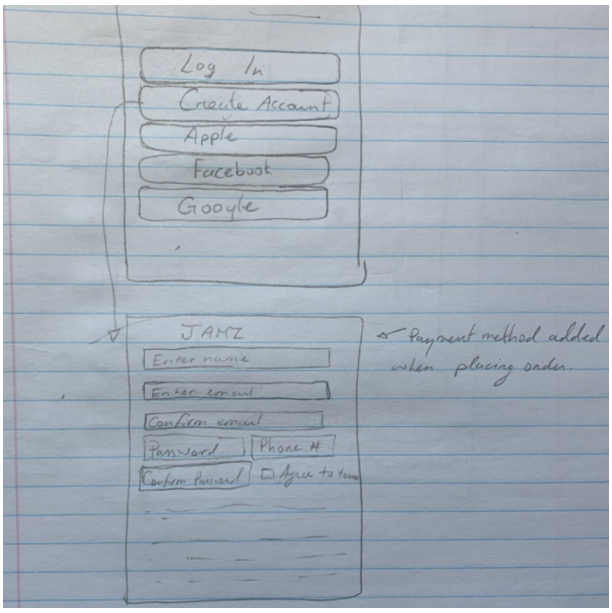


Created by Harry Yang



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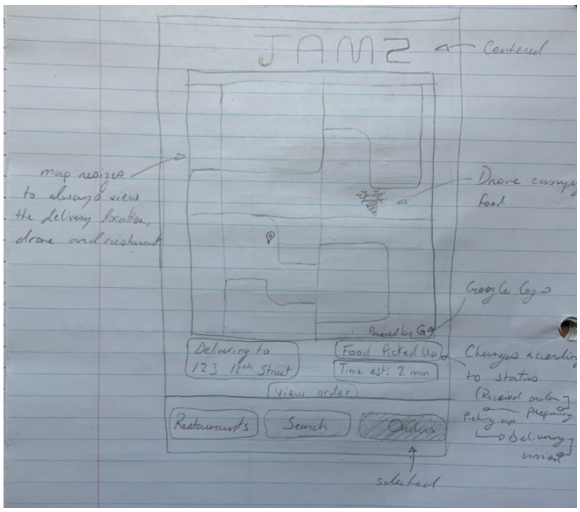

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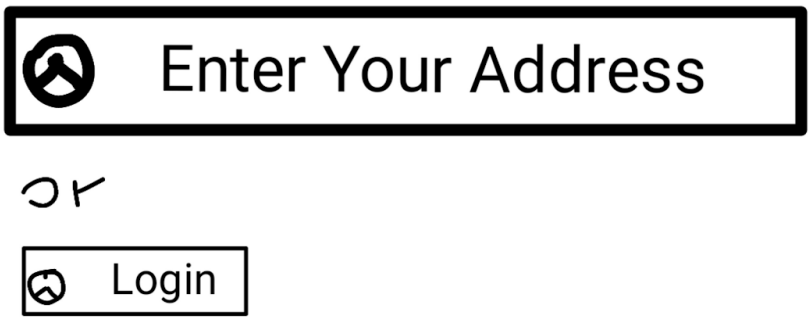

Created by Ahmad Al-Abed

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