

# UX Analysis of Uber Eats App

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## Project [part 1]

UX Analysis of Commercial Mobile App

### Product:

Uber Eats

### Team Name:

Sappers

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Presentation Comments	
Report	
Total Score:	
Overall rating	<ol style="list-style-type: none"><li>1. Exceptional</li><li>2. Very Good Work</li><li>3. Good</li><li>4. Acceptable</li><li>5. Need Improvement</li></ol>

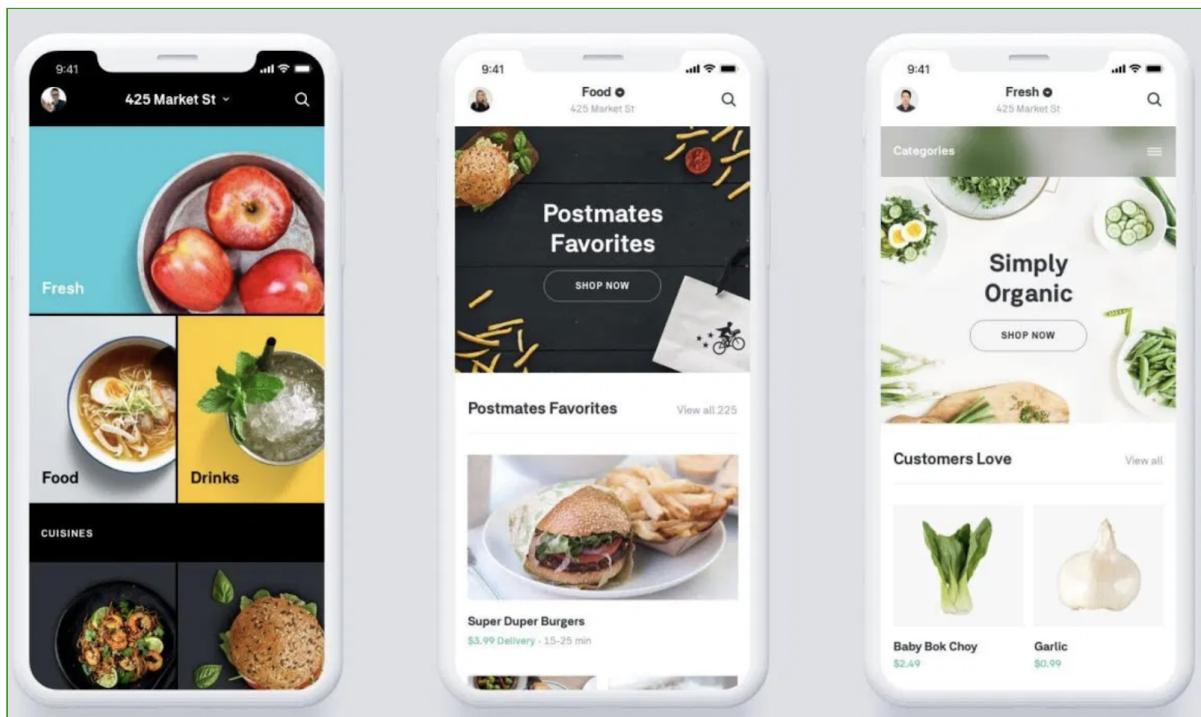
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# 1. Introduction

A design speaks a million words. Today, for every user needs, mobile and web applications are there in the market. If you want to shop for shoes or for food, you want to buy insurance or a house, for everything, there is an app. Mobile applications are trickier to design due to limitations on screen size, power and connectivity. In contrast to this fact, they are many times more frequently used than web applications. Thus a mobile app has to provide the best functionality in minimal resources. As is said :

"Design is not just what it looks like and feels like. Design is how it works." -- Steve Jobs,  
Apple, Inc.

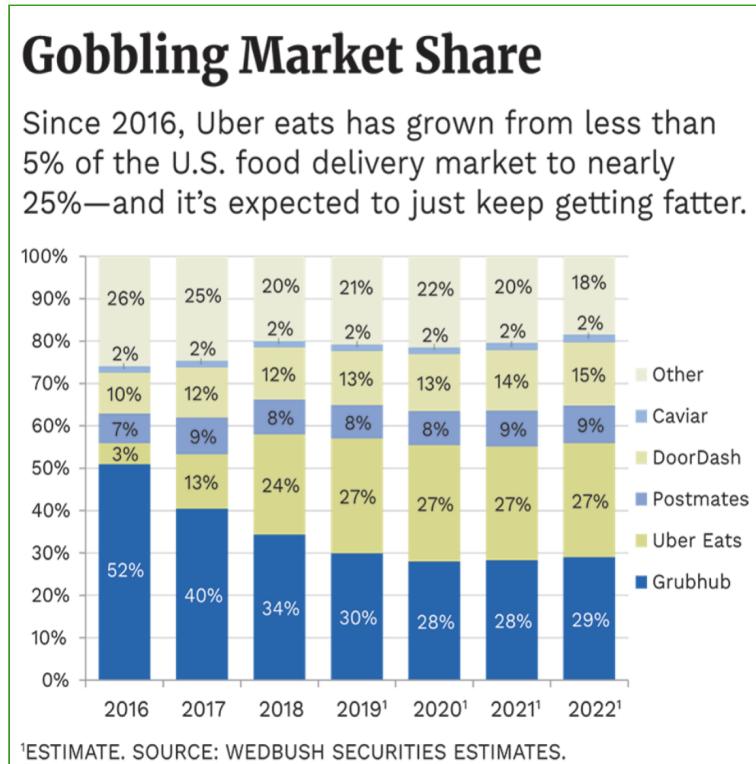
To achieve this goal, UI design plays a very important role. One of the fields in which many apps are being launched and which have a huge product to cover are in food ordering and delivery market. Doordash, Uber Eats, Grubhub are few of them. All these apps cater to millions of customers, each customer has unique tastes.



We selected Uber Eats as the application as it is one of the many food delivery apps which are being used by millions of users. We wanted to analyse how it caters to the need of millions of users. Especially because all the customers have a different type of tastes and it is a complex task to satisfy each of the customers. Providing each customer, options to search for food and restaurants of their liking, but designing options that are general enough to cover all the customer expectations. Including this keeping the number of options in limit so that customers do not feel confused. All these requirements are hard to satisfy as they are contrary to each other. For example, if I reduce the number of options then I may not be covering all the user expectations. On the other hand, if I increase the items I may make the user confused and the response time increases. So it was interesting to study how a big brand like Uber is achieving this.

## 2. Description

Uber Eats app has about 25% market share in food delivery market and it aims to reach 50% plus US population by the end of year 2019. "Of the 91 million [Monthly Active Platform Consumers] on our platform, over 15 million received a meal using Uber Eats in the quarter ended December 31, 2018, tapping into our network of more than 220,000 restaurants in over 500 cities globally," writes Uber Eats, as reported by "The Spoon."



Food delivery apps are a clear example of statement by Joel Spolsky, "Design adds value faster than it adds costs". The better the design will be the more orders per second will be received. The change may be small, but the value it creates and thus its impact on the business can be huge. It can impact the business positively or negatively. The value is not only in terms of money but also in terms of customer trust and retention. Uber Eats has many competitors in the market. To beat this competition and become a market leader it has to make its mobile application better than others.

Figure 2.1 Market share of major food delivery companies

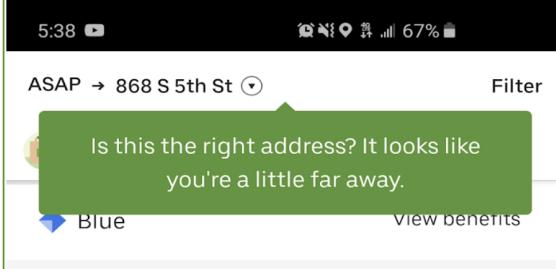
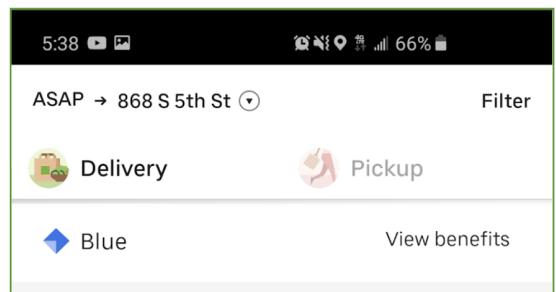
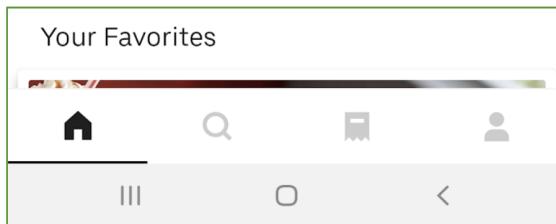
It is a must that it is much easier and faster to search and order using Uber Eats than other apps. This requires a lot of market research and stepwise step iterative development.

Uber Eats app provides the functionality of aggregating restaurants and providing a platform for their accessibility to customers. Customers can search for their choice of restaurants and food near their location. They then have the option to order the food which then is delivered to their address. Customers can give ratings to the restaurants according to which they will receive future recommendations. The app provides a feature of adding multiple payment options like credit/debit cards. One can use Uber credits also for payment.

Average delivery time <b>30 minutes.</b>	Grew by <b>\$2.6 billion in gross</b> During the quarter that ended in December of last year.	Made <b>\$7.9 billion in gross</b> In 2018.
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### 3. Interface Evaluation

#### 3.1 Feature Evaluation

Home Screen	
<b>Good Assessment :</b> The first thing user observes in the address on the left side top corner. Address is most important for delivery and grabs the first eye of customer..  Filter, Delivery and Pick up tabs are given on the top which makes it easy and quick to access.  Badge options blue and benefits provide easy access for premium membership.  Home, Search, Order and User options are placed on the bottom toolbar.	  
<b>Bad Assessment :</b> Home Page shows the message “Busier than usual” message. It is discouraging to the user.  Filter tab in the right corner looks like a plain text.  Tab on left corner shows address but if an unknown person will see it, it is hard to realise that it is an address and there is no clear indication that you can change the current location using it.	Loads of redundancy among options like there Chinese foods are listed in options for Fast Foods as well as in Chinese/Thai categories.  To many options in the scroll down. It is confusing..
The icon for activity is not very relevant to activity. Until you do not open the tab it is hard to know what is for.	

## User Profile and guides Screen

### Good Assessment :

Small crisp task based menu list.

Documentation available for policies, pricing and basic functionality.

### Bad Assessment :

Options look like text rather than buttons.  
Not clear if clickable.

Deliver with Uber option is grouped with all the user profile options. It should be a separate category.

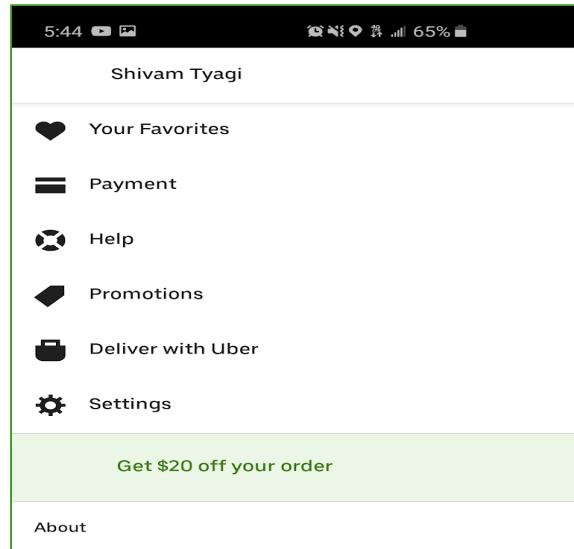


Figure 3.2 User Profile screen

## Search Screen

### Good Assessment :

The search screen shows different food categories.

All thumbnails are of consistent size and the font is big enough to be clear.

### Bad Assessment :

The search screen gives options by category of foods but does not provide any sorting options in the results.

The filter appears like text rather than a tab.

Search can be integrated with home screen for giving quick access to users to search options.

To many options in the scroll down. It is confusing.

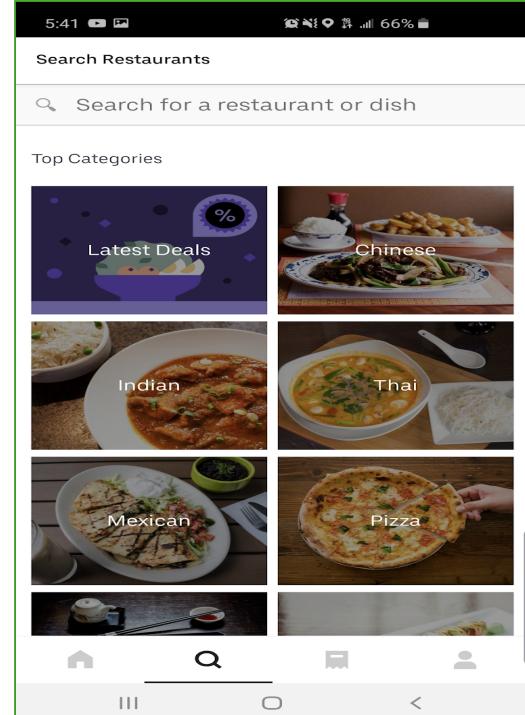


Figure 3.3 Search screen

## Order History Screen

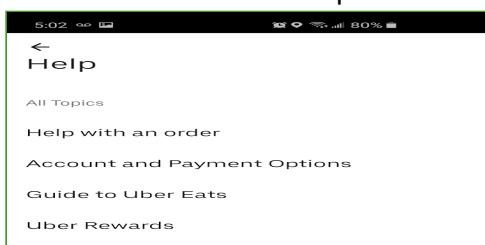
### **Good Assessment :**

Order details like price and restaurant address are displayed clearly.

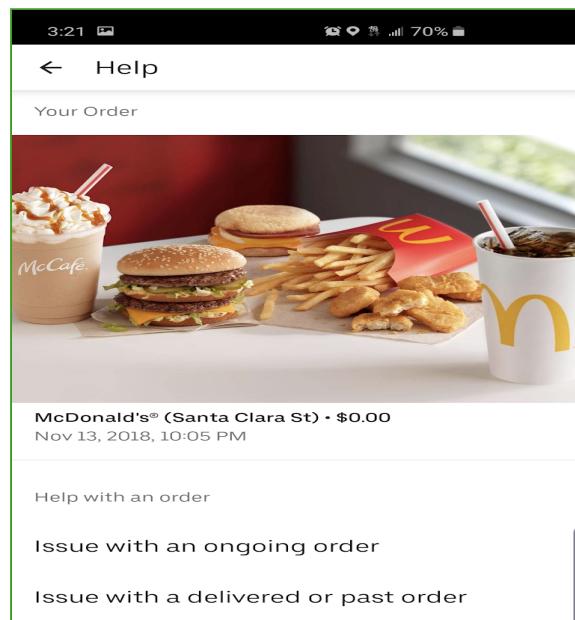
Customer can report an issue with current or past orders straight from this screen.

### **Bad Assessment :**

In the Help screen, it is hard to judge whether a text is a clickable option or just text. There is no clear difference between normal text and a clickable option.



**Figure 3.4** General Help screen



**Figure 3.5** Order Help screen

## Item List and Order Screen

### **Good Assessment :**

Top toolbar displays different categories and gives customer to switch among them quickly.

Promotions are the third item and is accessible to customers.

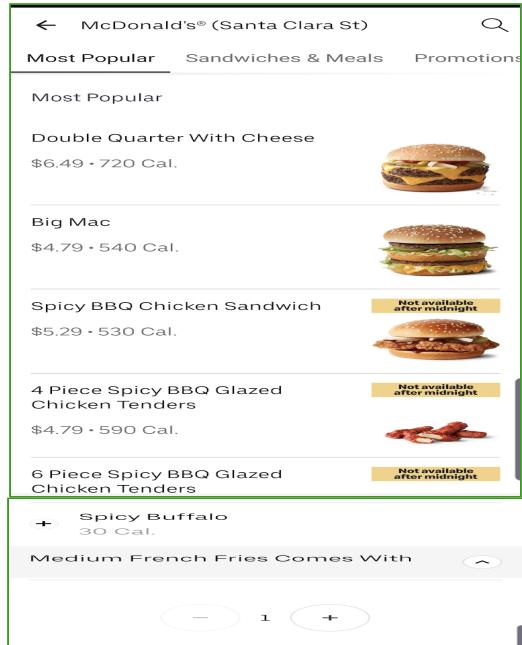
Most popular items are displayed first.

### **Bad Assessment :**

A long list of options which confusing for the customer. Tab options are confusing. Same items in multiple tabs.

The quantity is at the bottom of the list. User has to scroll all the way to the bottom to add quantity if more than 1.

The top tab bar does not tells the total number of tabs available and how many items are there under each tab.



**Figure 3.6** Add quantity option at bottom

Your Cart Screen	
<p><b>Good Assessment :</b></p> <p>Cart screen gives details of customer's address and restaurant.</p> <p>Screen gives option to change the delivery time to future point of time.</p> <p>Option to add tip are placed just above bill information providing quick option.</p> <p>Payment option is just below the billing information. Customer does not need to navigate to other screen for payment.</p> <p>Option is given to add promo code. Timer for free delivery tells how much time is remaining along with feedback that system is up.</p> <p><b>Bad Assessment :</b></p> <p>On this screen, there is an option that shows if it is a pickup or delivery, but User cannot tell if it is clickable or not. The arrow showing it is a drop-down is on the far right and is very small to be visible.</p> <p>The delivery time row on this screen again looks like a plain text and there is no way to know that it is clickable and takes you to another screen</p> <p>One can change the delivery time of order by clicking on the row having the clock symbol. But there is no way for users to know that this feature exists until they click on that row tab.</p> <p>No clear option to remove an item from the cart. You have to select the item which takes you to the item page and there at the bottom of the screen there is an option to remove the item.</p>	
<p><b>Figure 3.7</b> Cart screen- time and location menu</p>	

Summary	
Principle	Features
Hick Law	<b>Follows :</b> The number of clickable options on thumbnail is one. The options on top row toolbar is 3. Number of options to Sort, Price Range and Max delivery filters are at most 4 keeping the RT very low.
Gestalt Principle	<b>Follows :</b> Sort, Price range and Delivery fee filters are grouped together. At cart screen payment, tip and promo code options are grouped together. <b>Violation :</b> “Deliver with Uber” option grouped with User profile options. The clickable tabs look very similar to normal text and thus very difficult to differentiate.
Simon Effect	<b>Follows :</b> Payment option, Adding quantity, Add to cart, View Cart, all buttons appear at the bottom of the screen.
Affordable Concepts	<b>Follows :</b> Customer can see that he can change the filters. <b>Violation :</b> There are no indications that list goes on or ends. Without scrolling user will not be able to figure out if there are more items
Discoverable Concepts	<b>Violation :</b> Delivery time tab does not have any indication that it can be used to change the delivery time. A new user will never know that he has the option to change the delivery time to future time.
Focusing Attention (location, color)	<b>Follows :</b> The buttons change the color to green as soon as user add item to client, giving a clear indication that user can place the order. Location, filter and other important tabs are placed at the corners or top and bottom most part of the screens.
Fitt's Law	<b>Follows :</b> Thumbnails and buttons follow the size and location principle clubbing same type of information together. Size of buttons and thumbnails are big to achieve quick response time. <b>Violation :</b>
George Miller Magic Number (7+2)	<b>Follows :</b> The number of filters is only 3 which reduces the response time. The number of options in the filters like Sort, Price Range, Max Delivery Fee are kept to the min and are very clear generating quick response times. <b>Violation :</b> The number of options like search, delivery, pickup are too many creating confusion for the customer.

## 3.2 Tasks Evaluation

Tasks	Flowchart
<p><b>Task 1: Using search to order food</b></p> <p>The task can be completed using the steps below.</p> <ol style="list-style-type: none"> <li>1. Search for a restaurant using search</li> <li>2. Pick a category</li> <li>3. Filter for moderately expensive restaurants, that offer vegan options</li> <li>4. Select a restaurant</li> <li>5. Order food</li> </ol> <p>The search icon is found in bottom navigation bar. On choosing search, a large number of categories are displayed.</p> <p>There is no option to display all nearby restaurants. The users are always forced to pick a category. They cannot view all restaurants.</p> <p>Bottom navigation bar has options to goto home, search page, orders and user profiles. After the users select a restaurant, the bottom navigation bar shown in figure 3.10 disappears. The users have to use back-button to go for search results page to be able to use the options provided by the navigation bar.</p>	<pre> graph TD     Start([Start]) --&gt; Search[Search for restaurant]     Search --&gt; Select[Select a category]     Select --&gt; Filter[Filter based on criteria]     Filter --&gt; Found{Found a restaurant?}     Found -- No --&gt; Search     Found -- Yes --&gt; Place[Place order]     Place --&gt; End([End])     </pre> <p><b>Figure 3.9</b> Using search to order food</p>
<p><b>Task 2: Order delivery or pick-up</b></p> <p>The flowchart is shown in figure 3.11. The task can be completed using the steps below.</p> <ol style="list-style-type: none"> <li>1. Navigate to the home page.</li> <li>2. Select the address bar at the top.</li> <li>3. Enter the address to be used as delivery address or to use as a reference point to display nearby restaurants</li> <li>4. Enter delivery or pick up date and time</li> <li>5. Find a restaurant</li> </ol>	

## 6. Order food

The task to schedule order to be delivered or picked-up is straight forward.

Whenever a user changes address, while the app is fetching nearby restaurants as per the new address, the address bar at the top shows the previous address. After the search process is completed, the app displays nearby restaurants as per the new address. Although the end result is correct, the address displayed during the search is wrong, and this can be confusing for the users.

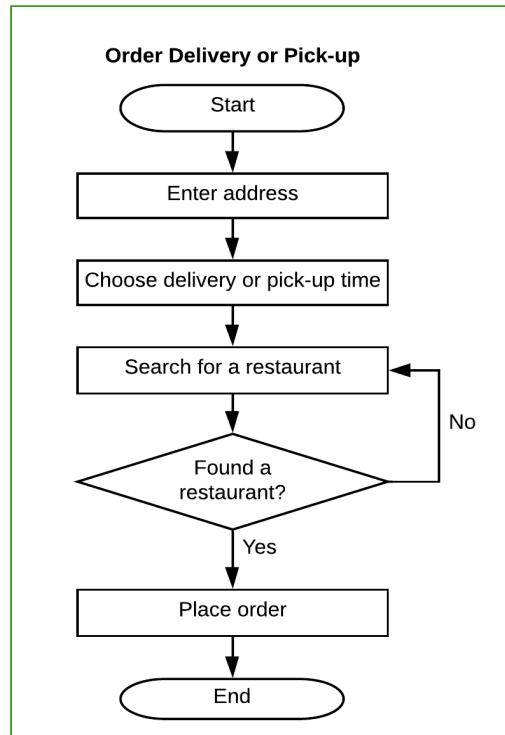


Figure 3.11 Order delivery or pick-up

### Task 3: Place order

The task can be completed using the steps below.

1. Search for a restaurant
2. Add/remove items from/to cart as required
3. Review order
4. If order is complete, place order
5. If order is not complete, go to step 2 to add/remove items, or step 1 to start a new order

The app does not provide options to discard the cart and start a new order.

The user can view cart through a button. The button appears only after the user adds at least 1 item. The button also shows the total cost of the order, making it easy for the user to keep track of the total cost.

While reviewing the order, the user can make edits to his orders regarding the delivery, pick-up options, and items. The user can change time to current time only if he wants to change the time.

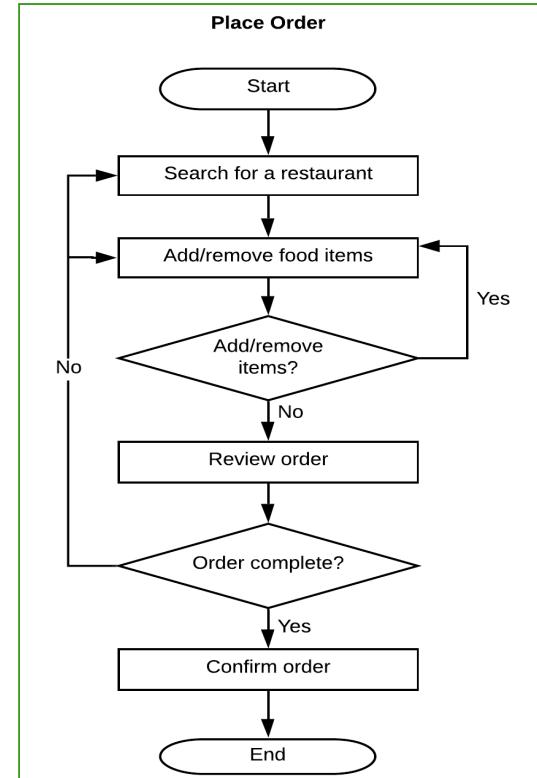
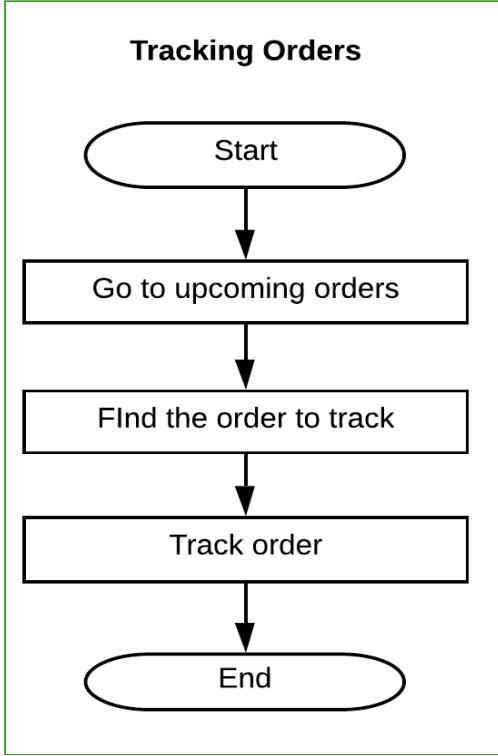


Figure 3.12 Place order

<p><b>Task 4: Track orders</b></p> <p>An upcoming order can be tracked using the following steps.</p> <ol style="list-style-type: none"> <li>1. Go to upcoming orders</li> <li>2. Find the order that has to be tracked</li> <li>3. Track the progress of the order</li> </ol> <p>The option to track orders is provided for current and upcoming orders only and disappears for past orders. While tracking the order, the message is updated to show the status of the order. Messages like “preparing the order”, “driver picking up the order”, “driver is heading your way” can engage and keep the user informed about the status of the order. If the order is being delivered, then a map shows the locations of driver, restaurant, and user. The map also shows the route the driver will take to reach the restaurant, and then the user. It also gives the phone number of the driver in case the user wants to call the driver.</p> <p>In orders to be delivered, once the driver picks up order from the restaurant, locations of driver and user are shown, and the map resets and goes out of focus. To search for the driver and user on the map can annoy the user. The icons that represent the user changes at this point, making it difficult for the user to track.</p> <p>The app also shows estimated arrival time, along with the latest time the order will be delivered.</p>	 <pre> graph TD     Start([Start]) --&gt; Go[Go to upcoming orders]     Go --&gt; Find[Find the order to track]     Find --&gt; Track[Track order]     Track --&gt; End([End])     </pre>
<p><b>Task 5: Tip and Rate</b></p> <p>Flowchart is shown in figure 3.14.</p> <p>After the order is delivered, user can tip the driver and rate the service and food as follows.</p> <ol style="list-style-type: none"> <li>1. After the order is delivered, the user rate and review the driver</li> <li>2. Tip the driver.</li> <li>3. Rate and review the restaurant. While providing the feedback, there are a few pre-set options to choose</li> </ol>	

- from, or can add new feedback.
- Each item ordered can be rated and reviewed individually.

The option to tip the driver is available only for an hour after the order is delivered. Also, the options to tip and rate are available after the order has arrived, but removed if you decline to provide the ratings at that time. The user cannot go back and rate the orders at a later point of time. This can be especially frustrating if the user wants to rate, but needs to place another order immediately, as he will have to either rate then or will lose the opportunity to rate forever.

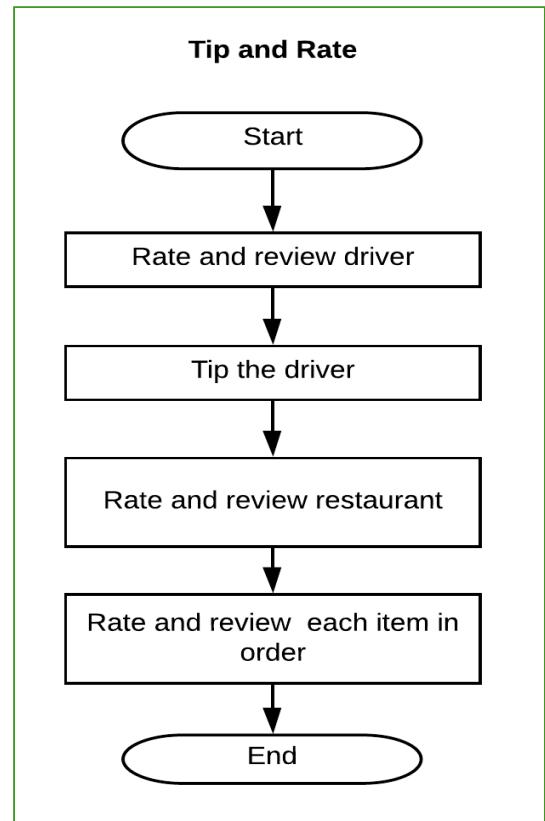


Figure 3.14 Tip and rate

### Task 6: Reorder

The user can reorder using following steps.

- Go to the past orders.
- Find the order
- Use the “reorder” button.
- The choice to have the order delivered, pick up can be changed.
- Place the order

This is efficient for users who want to place an order from their previous orders. The user can also modify the items or discard the order similar to the task to place order.

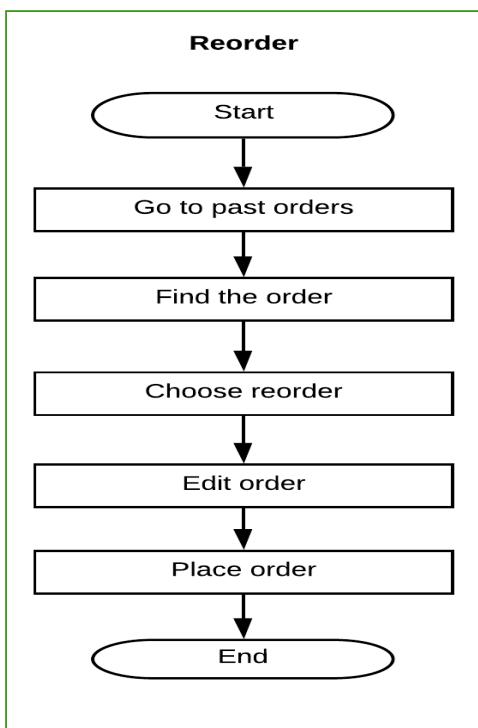


Figure 3.15 Reorder

# 4. Comparative Study

## 4.1 Study of all similar products or technologies

There are multiple food delivery apps around which compete with Uber Eats. Few of them are Doordash, Grubhub, Postmates, Delivery.com and Seamless. The basic criteria for comparing these apps is the availability and the fees they charge. The comparison of these app on the basis of the mentioned criteria is shown in table below.

App Name	Availability	Fees
Uber Eats	Covers total 500+ cities in the US as well as around the globe.	Charges 15% service fee and delivery charges for orders below \$10.
DoorDash	Covers 800+ cities in US and Canada	Includes tax, delivery fees and optional tip. Some restaurants may charge extra fees.
GrubHub	Covers more than 900 cities	Some restaurants may charge delivery fees and may have minimum amount for orders.
Postmates	Covers 3000+ cities in the US	Default fee is added to every order and sometimes during peak times extra fees are added.
Seamless	Covers 600+ cities	Has minimum amount for orders, not other fees included.
Delivery.com	Covers hundreds of major cities in US	Some restaurants may charge a delivery fee and may have minimum amount for orders.

**Table 4.1.** Comparison between food delivery apps

Although there are multiple food delivery options or mobile apps available in the market, very few are in demand and competition. The apps which are in competition with Uber Eats are DoorDash, GrubHub and Postmates. Uber Eats' performance can be compared with these apps one by one.

## 4.2 UberEats vs DoorDash

UberEats and DoorDash both offer on-demand service and both of them are available for desktop as well as mobile users. Both of these apps have very simple process to order food which includes adding credit card, delivery address, food to be ordered and adding special instructions if any. Also, both of these apps show estimated time for delivery.

- **Availability:** As mentioned in the above table, UberEats is available in many cities across the US as well as outside the US such as in cities all over Europe, Australia, Asia and New Zealand. Where DoorDash is only available in the US and Canada.
- **Customer Support:** The other difference in these two applications is the customer support. In DoorDash, customer requests are handled through chat app in their application. While in Uber Eats, customer support line is available for 24/7.
- **Delivery Charges:** For DoorDash, the basic delivery fee is charged which varies according to the cities. Sometimes the charges also include the service charges requested by restaurants. Similarly, Uber Eats also has variable fee but the fees vary according to the distance between the customer's location and the restaurant's location.
- **Subscription Service:** DoorDash offers DashPass, which is a subscription plan for customers to get free delivery on all orders above \$15. This subscription plan is \$9.99 per month. On the other hand, UberEats doesn't provide such subscription plan.

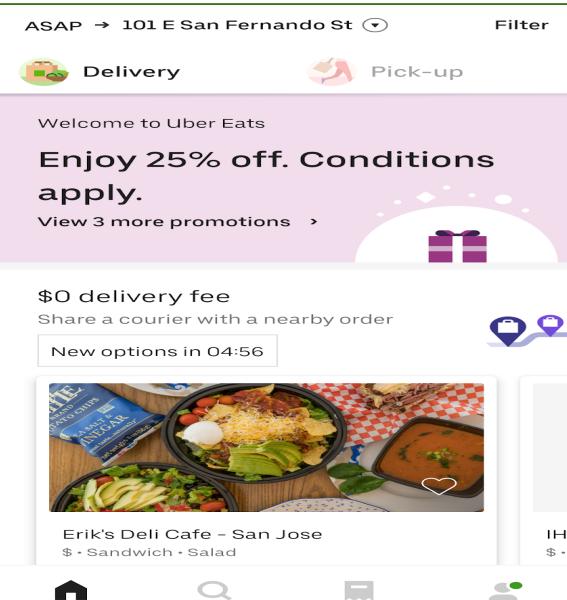
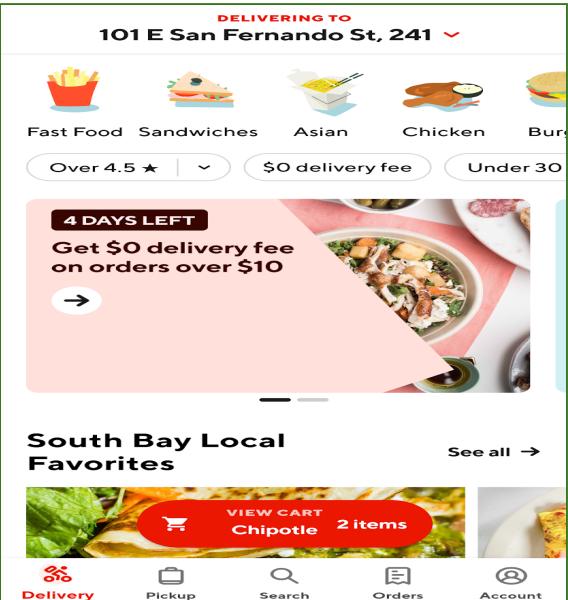
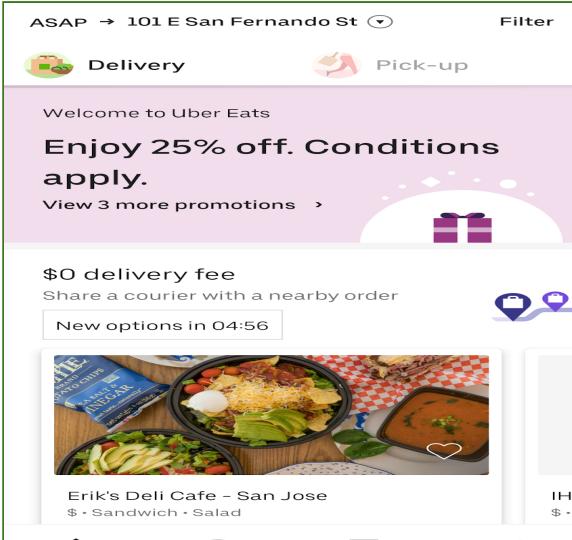
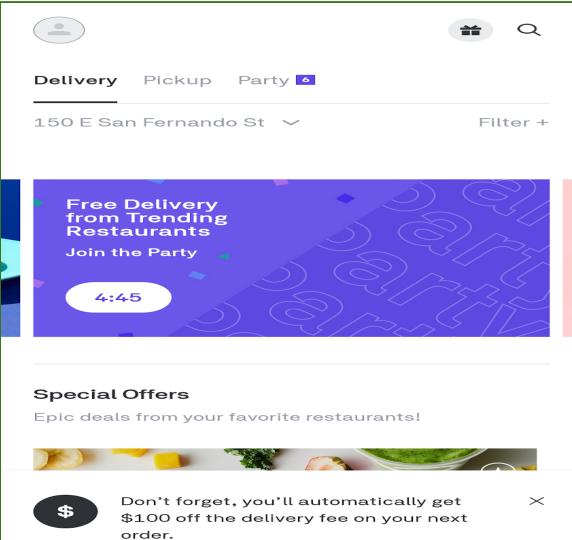
UberEats	DoorDash
 <p><b>Figure 4.1</b> UberEats HomeScreen</p>	 <p><b>Figure 4.2</b> DoorDash HomeScreen</p>
<p>As seen in Figure 4.1, delivery or pick up option is given priority. No option for choosing type of cuisine visible on the home screen.</p>	<p>As seen in Figure 4.2, type of cuisine is given priority. Pickup option is visible on bottom menu.</p>

Table 4.2. Comparison between UberEats and DoorDash

## 4.3 UberEats vs Postmates

UberEats is a delivery service, where they partner with multiple restaurants in cities to provide convenient and quick delivery while, Postmates, though is a delivery service, is not limited to restaurants. Using postmates, customers can order anything they want to get delivered from stores.

- Availability:** As mentioned in the above table, UberEats is available in many cities across the US as well as outside the US such as in cities all over Europe, Australia, Asia and New Zealand. Postmates is available in multiple cities in the US.
- Services provided:** UberEats, as stated earlier, is delivery service which is partnered with multiple restaurants. While Postmates, delivers all kinds of necessary things requested by customer including groceries and alcohol. A restaurant or store doesn't need to have a partnership with Postmates for customers to order from.
- Delivery Charges or additional charges:** As some stores or restaurants are not partnered with Postmates, they charge extra fee from the customers. But Postmates customers can avoid such fee by ordering from partnered stores or restaurants. On the other hand, UberEats keeps the delivery charges minimum by sticking with the delivery partners.

UberEats	Postmates
 <p><b>Figure 4.3</b> UberEats HomeScreen</p>	 <p><b>Figure 4.4</b> Postmates HomeScreen</p>
<p>As seen in Figure 4.3, delivery or pick up option is given priority. Options to view profile, orders are visible on the homescreen bottom menu.</p>	<p>As seen in Figure 4.4, same as UberEats delivery or pick up options is given priority but there is an option for party orders too. No such options visible, all the options are hidden under profile slider.</p>

**Table 4.3.** Comparison between UberEats and Postmates

## 4.4 UberEats vs Grubhub

Both of the UberEats and Grubhub are on demand delivery services which partner with restaurants and are restaurant only delivery service.

- **Availability:** As mentioned in the above table, Uber Eats is available in many cities across the US as well as outside the US such as in cities all over Europe, Australia, Asia and New Zealand. Grubhub is available in over 2000 cities in the US and is one of the largest delivery options in these cities.
- **Food tracking:** Similar to Uber ride-sharing app, UberEats has simple but efficient food tracking functionality. Such functionality is not provided by Grubhub.
- **Efficiency:** Although GrubHub is simple to use and popular amongst the users, UberEats is fast and accurate. Both of these services provide Estimated time for delivery, payment using PayPal, Apple Pay, Google Pay and many more.

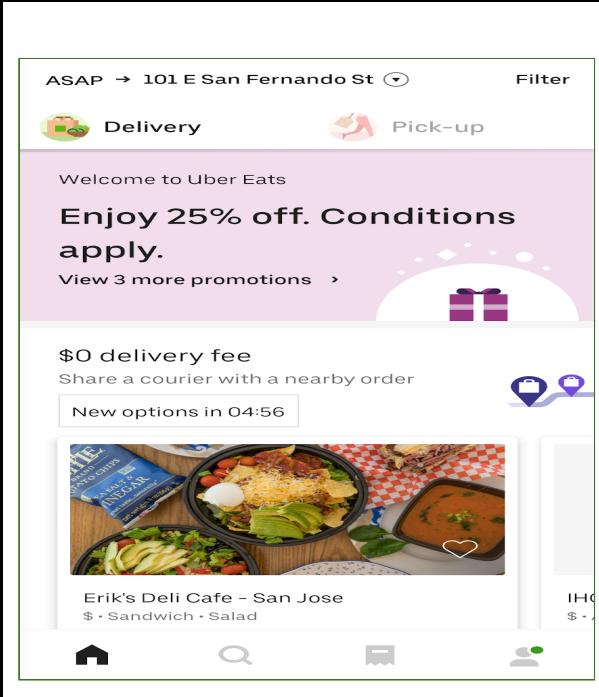
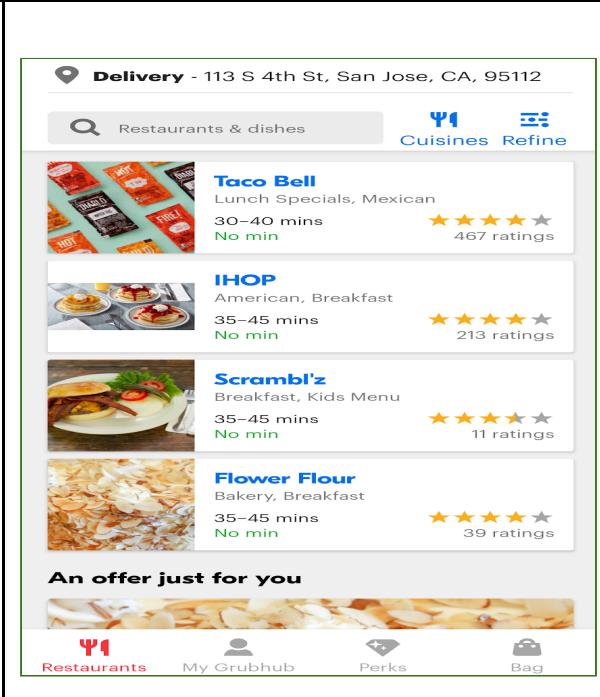
UberEats	Grubhub
	
<p><b>Figure 4.5</b> UberEats HomeScreen</p> <p>As seen in Flgure 4.1, delivery or pick up option is given priority. User interface is neat and attractive.</p>	<p><b>Figure 4.6</b> GrubhubHomeScreen</p> <p>As seen in Flgure 4.2, search option is given priority and option to choose type of cuisine is next to search bar. User interface is congested and less attractive as compared to UberEats.</p>

Table 4.4. Comparison between UberEats and Grubhub

# 5. User Profiling:

## 5.1 User research

Based on researched data[6], there are facts and data below:

- 15 Million people use Uber eats (data updated on 4/11/19).
- 29% transaction of global meal delivery market is Uber Eats (data updated on 5/14/19).
- 220,000 restaurants take part in Uber Eats (data updated on 4/11/19).
- 60% of US restaurants participate with Uber Eats (data updated on 4/18/19).

To better understanding users' demographic information as well as user's frequency, motivation, and satisfaction about using the Uber Eats App, we use Google forms to create a survey and send out the survey by email and text messages through our own network. Including the questions below:

1. Have you ever use Uber Eats?
2. How often do you order food online using Uber Eats on average?
3. What do you look for in great food delivery service?
4. How much money do you typically spend on each order?
5. What motivates you use Uber Eats?

We got 43 replies with 28 of them have been use Uber Eats order food delivery:

- 25 out of 28 users typically spend \$10 above
- 19 out of 28 users typically spend \$11 to \$30 which is about the 1-2 people food size
- 22 out of 28 users are 18-30 years old
- 28 users: 18 males and 10 females
- 20 out of 28 users using Uber Eats at least a couple times a month [figure 5.1]

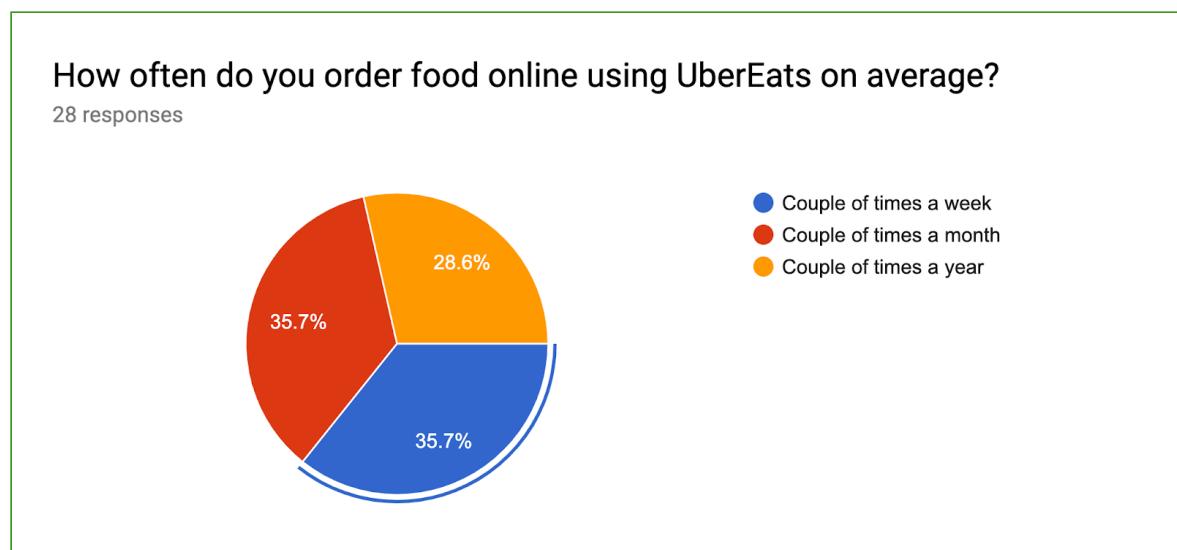


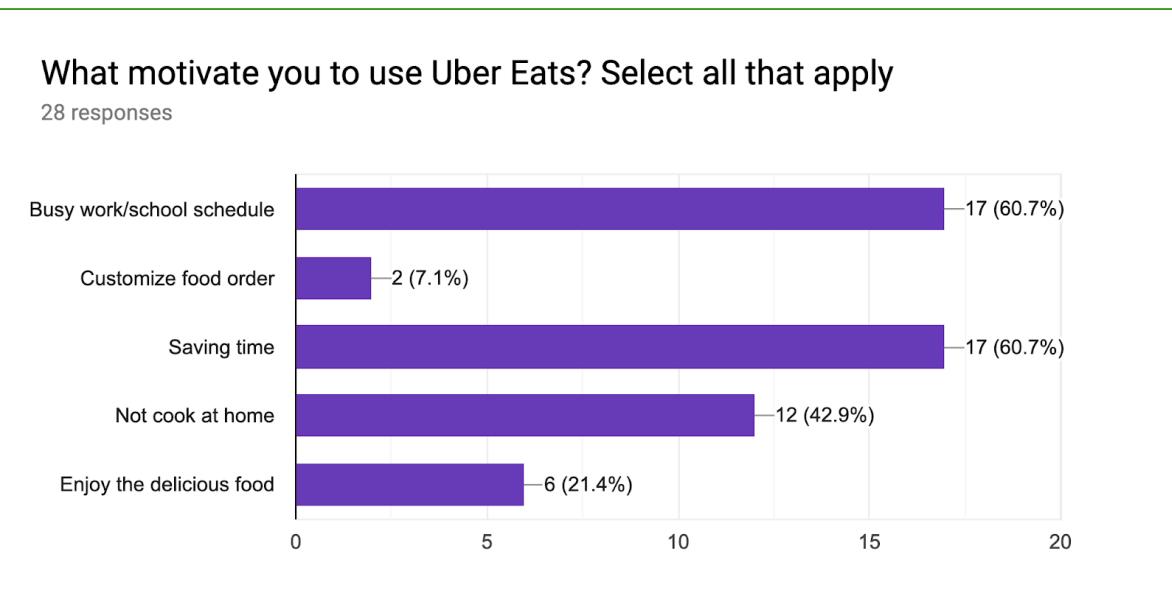
Figure 5.1 User's frequency in using Uber Eats

- 9 out of 28 users are students
- 19 out of 28 users rate convenience is what they are looking for in great food delivery service [Figure 5.2]



**Figure 5.2** User's expectation in using Uber Eats

- 13 out of 28 users are in the IT field
- 19 out of 28 users rate busy work/school schedule or saving time as their motivation to use Uber Eats [figure 5.3]



**Figure 5.3** User's frequency in using Uber Eats

## 5.2 Target Audience

- Users have limited time or transportation
- Users want to schedule a food delivery in a specific time
- Users want to personalize food order

### 5.3 User persona

To better understanding user profiles, we created 3 personas based on the data we collected in the survey regarding user's motivation. See figures below:

Persona 1 - Robert Smith

- Single
- 25 years old male
- Saving time is the motivation

## Robert Smith



*"I just want to order food delivery so I can spend more time working"*

**Situation:** no time to cook or dining out

**Motivation:** order food delivery

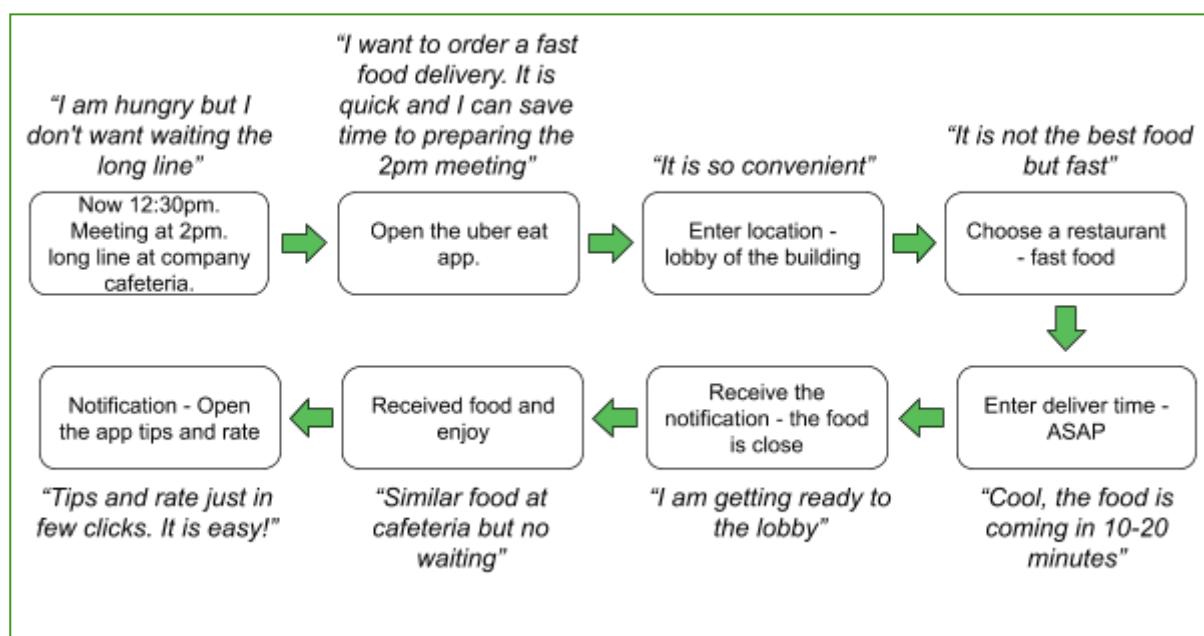
**Outcome:** spend less time to eat and possibility eat while working

**Behaviors**

- Works from 9:30-6:00 pm
- Orders food delivery 4-5 times/week, most likely for lunch at work
- Likes to go out
- Seldom cooks due to shared living condition
- Dinning out with friends on weekend

**Bio**  
Robert Smith is single and an IT professional with full booked schedule, who does not have time to cook on weekdays and spend much time dining out. He wants to order food delivery so he can spend less time to eat and possibility eat while working.

Figure 5.4 Persona - Robert Smith



**Figure 5.5** Activity - Robert Smith

Persona 2 - Maria Garcia

- Married with kids
- 35 years old female
- Saving time is the motivation

## Maria Garcia



*"I just want to order food delivery so I can spend more time on housework and relax"*

**Situation:** no time to cook or dining out

**Motivation:** order food delivery

**Outcome:** have time to do housework and relax

**Behaviors**

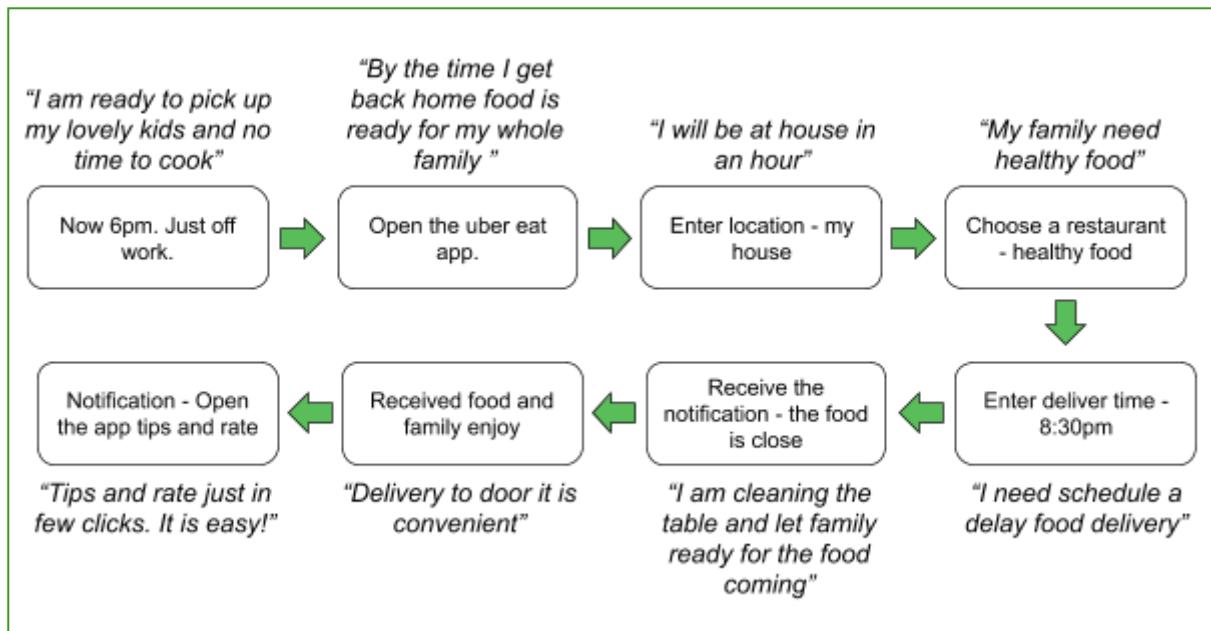
- Works from 10:00-6:00 pm
- Light breakfast home and eat free lunch at work
- Orders food delivery 3-4 times/week, most likely for dinner after work on weekdays
- Likes to spend time with family
- Dinning out with family or cook at home on weekend

**Bio**

Maria Garcia is an IT professional with full booked schedule and a family to take care of, who does not have time to cook on weekdays and spend time to dining out. When she comes back home from work, she wants to order food delivery for her whole family so she can have time to do housework and relax.

<b>Age:</b> 35	<b>Work:</b> Product Manager
<b>Family:</b> Married with kids	<b>Location:</b> Mountain View, CA
<b>Provide food at work:</b> Yes	<b>Financial:</b> Comfortable
<b>Food Preferences:</b> Healthy	

**Figure 5.6** Persona - Maria Garcia



**Figure 5.7** Activity - Maria Garcia

### Persona 3 - Patricia Johnson

- Single
- 29 years old female
- Convenience is the motivation

## Patricia Johnson



*"I just want to order food delivery so I can enjoy the food but not spend too much time to dining out at lunch break"*

**Situation:** want to eat out with limit time

**Motivation:** order food delivery

**Outcome:** enjoy the food but not spend too much time

**Behaviors**

- Works from 9:00-5:30 pm
- Love to cook
- Orders food delivery 2-3 times/week, most likely for lunch at work on weekdays
- Most of the time eat at home or dinning out with friends

**Bio**

Patricia Johnson loves to cook. She cook on weekend and pack the food for weekdays. he have night classes on Tuesday and Thursdays. Since she want to eat something different without spending too much time at lunch break, she order customized food and delivery.

<b>Age:</b> 29 <b>Work:</b> Marketing Manager <b>Family:</b> Single <b>Location:</b> San Francisco, CA <b>Provide food at work:</b> No <b>Financial:</b> Comfortable <b>Food Preferences:</b> Customized
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Figure 5.8 Persona - Patricia Johnson

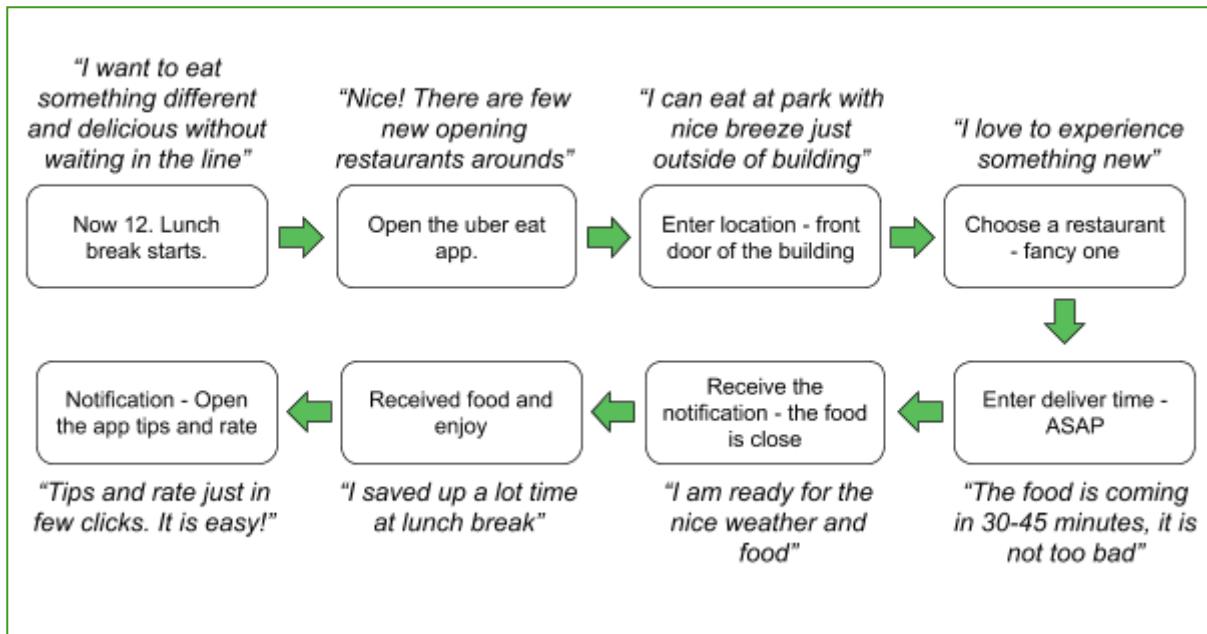


Figure 5.9 Activity - Maria Garcia

## 6. Usability Metrics for Product Evaluation

The interface was evaluated using both quantitative and qualitative metrics.

The interface was evaluated using both quantitative and qualitative metrics.

### 6.1 Quantitative metrics

- **Success rate**

This indicates the number of users who were able to complete the task assigned satisfactorily.

- **Task time**

This indicates the time taken by the users to complete the task assigned.

- **Number of crashes or system generated errors**

This indicates the number of times the app crashed or displayed error messages while performing the task

### 6.2 Qualitative metrics

Jakob Nielsen's usability heuristics were used to evaluate the application on usability[12].

- **Feedback or visibility of system status**

The application must keep users informed about what is going on, through appropriate feedback within reasonable time. The feedback should be in user's language and simple to understand. If the application is facing technical difficulties, it must inform the user of the same.

- **Use of user's language**

The application must use user's languages, and should not have technical terms and terminology which are complicated or can confuse the users.

- **User control and freedom**

User should have the freedom to navigate and perform actions. Application must provide easy reversal of actions. User should be able to undo, redo actions, and have an option to emergency exit.

- **Consistency and standards**

The application should be consistent with respect to the buttons, iconography, actions, instructions, error messages, language, and typography across the application.

- **Error prevention**

Although users must be given appropriate error messages and opportunities to correct the errors, preventing errors where possible is desirable. For example, providing date-pickers instead of text fields to enter date will prevent errors due to incorrect data entry.

- **Recognition rather than recall**  
Recognition can reduce memory overload for the users. The application must use familiar terminology, iconography, and actions. The application must provide tooltips and easily accessible information wherever possible, so that the user will not have to rely on memory to recall information.
- **Flexibility and efficiency of use**  
The application must cater to the needs of both novice and expert users. Where novice users may need instructions, expert users may need accelerators to speed up the process. The application must have accelerators like shortcuts for frequently performed actions.
- **Aesthetic and minimalist design**  
All screens must have relevant and required information. Information overload, and certain design elements can make it difficult for user to use the application efficiently.
- **Error messages and error recovery**  
The application must provide user appropriate error messages. Highlighting the fields where errors occurred can help the user recognize the error easily. The application must also suggest the solution to recover from the error made. The application must also clearly communicate to the user about actions that might be difficult to correct, like asking the user to review the order and confirm before placing the order.
- **Help and documentation**  
Usability is enhanced by providing users a help section to turn to, when the users need directions. The help documentation must be easily accessible, and in user's language, without technical concepts. It should provide precise instructions for users to use the application effectively.

## 7. Tools

There are various types and rigorous methods for testing the web applications and mobile applications. As concerned with this project, since UberEats is the mobile application which is already in the market for use, usability testing can be done. Usability testing is a method to test an application on the basis of its design and how its easy to use for the targeted users. The typical usability testing includes sequence of tasks to be completed by test participants.

In the article[14], researchers talks about two types of usability testing, laboratory-based usability testing and remote usability testing. The laboratory-based usability testing is rigorous and it is difficult to find test participants for both of the usability testing.

Although, it is difficult to perform usability testing for us project members as reviewers, UberEats app itself give some relevant insights.

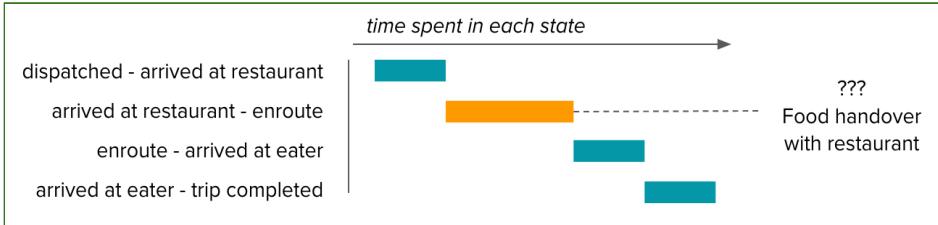
1. Number of reviews for a particular restaurant - Restaurants with maximum reviews appear in most popular section.
2. Geographical location: After placing the order, user can track the order and also gets estimated time for delivery.

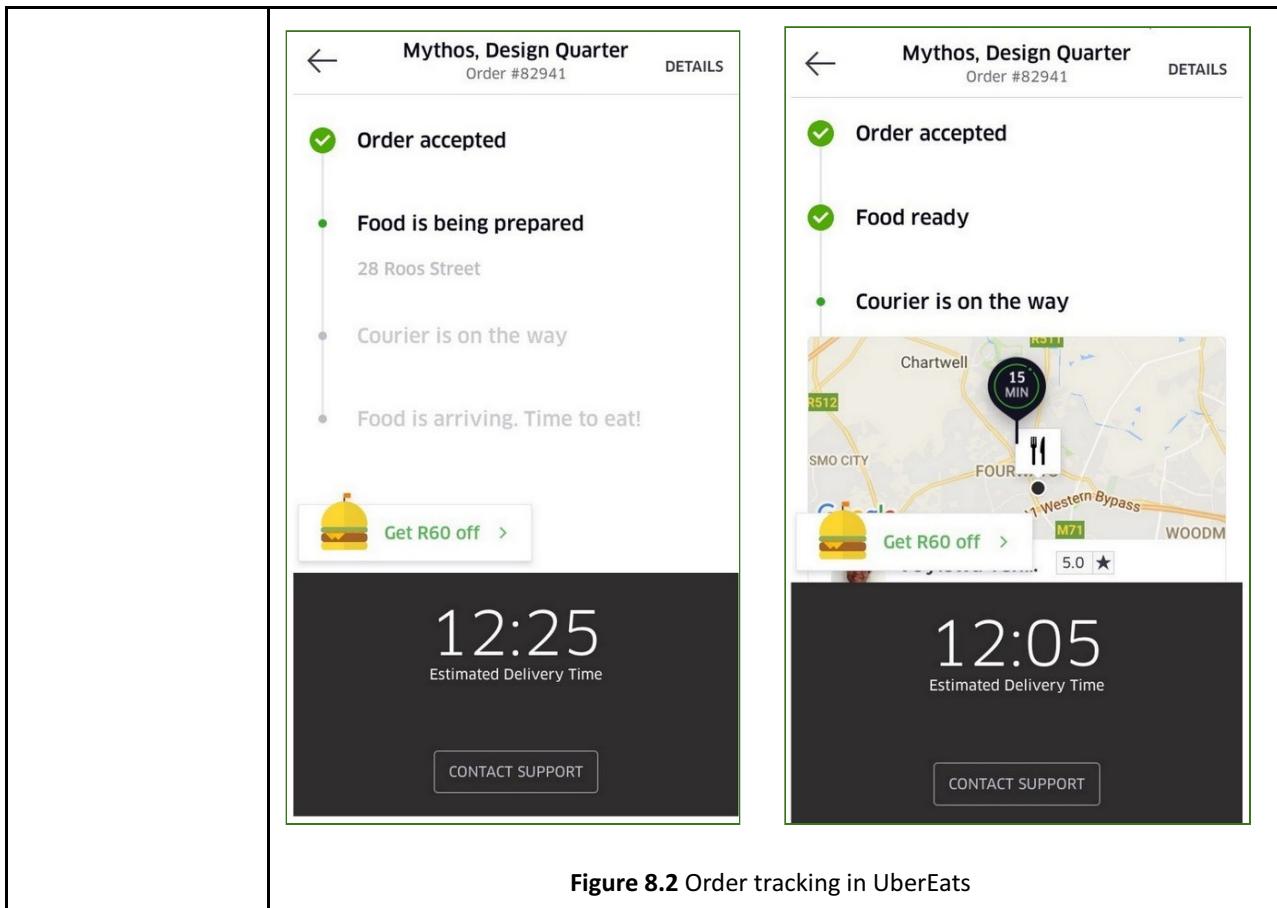
We performed usability testing based on tasks mentioned in previous sections. The details about the testing are mentioned in 'Techniques' section.

<b>Application</b>	<b>Description</b>
UberEats	UberEats is the mobile and web application for ordering food online from the various restaurants. You can either visit the <a href="https://www.ubereats.com">https://www.ubereats.com</a> or download the UberEats app from Google Play Store or Apple store. UberEats has very simple user interface that users can easily understand and use the application through website or mobile application. You can change the delivery address as per your convenience or can pick up the food from the restaurant.
Google Forms	Forms can be created using google forms, which include questionnaire. Such questionnaire acts as survey tool and is used to collect the data from various users or customers. To create google form visit <a href="https://www.google.com/forms">https://www.google.com/forms</a>
Pingdom	Pingdom is a tool for measuring web performance. Web performance is monitored based on load and response time of a web page. To test web app performance, visit <a href="https://tools.pingdom.com/">https://tools.pingdom.com/</a> and enter the website url.
Sketch	Sketch is used to create the Personas.
Lucidchart	Lucidchart is used to create and display the task flow or user journey map.
Adobe Photoshop	Adobe Photoshop is used to edit and format the images.
Snipping Tool	Snipping tool is used to capture the screenshots. The tool used is native to Windows system.

## 8. Techniques

in this section we are going to evaluate the important toll which we mentioned in the previous section and how it was used for usability testing and for generating analysis.

Application	Description
UberEats	<p>UberEats app is for both customers and drivers who delivers the food.. But since most of the features developed in this application are targeted for the customers we will focus on discussing how UberEats works.</p> <p>As a customer, you first enter the address where you want food to get delivered. Then you search for restaurants based on your budget and choice of food. Once you select the restaurant, you finalize what exactly you want to order and add that into the cart. After reviewing order you make the payment and place the order. Now you can track the order.</p> <p>The order tracking is based on GPS tracking. GPS signal from driver or delivery partner helps to understand the state of the order. The graphical representation of the state of delivery partner is explained in the following figure.</p>  <p>The diagram illustrates the time spent in each state of a delivery partner. A horizontal arrow at the top is labeled "time spent in each state". Below the arrow, four states are listed with their corresponding colored bars:</p> <ul style="list-style-type: none"><li>dispatched - arrived at restaurant (blue bar)</li><li>arrived at restaurant - enroute (orange bar)</li><li>enroute - arrived at eater (teal bar)</li><li>arrived at eater - trip completed (teal bar)</li></ul> <p>A dashed line connects the end of the orange bar to the start of the teal bar. To the right of the teal bar, there is a question mark icon (???) followed by the text "Food handover with restaurant".</p> <p><b>Figure 8.1</b> GPS Signals helps to identify if delivery-partner is driving or at restaurant</p> <p>Since, order tracking is based on delivery partner's position tracking, it's displayed as live tracking for customers. Customer can see the details of the deliver-partner along with his live location which gives clear idea where our food is.</p>



**Figure 8.1** Technique used for usability testing

# 9. Usability Evaluation

The interface was evaluated on the following categories.

## 9.1 Quantitative metrics

We asked ten people to use the application to place the orders.

- **Success rate**

All users were able to successfully search, browse, order items from a restaurant.

- **Task duration**

Three users required two minutes approximately to place the orders. Four users spent between four and six minutes. Three users spent between eight and ten minutes to place their orders.

- **Number of system generated errors**

Three users faced technical difficulties due to system generated errors while using the application.

## 9.2 Qualitative metrics

The application was evaluated based Jakob Nielsen's usability heuristics[12], and the evaluations are given below.

- **Feedback or visibility of system status**

The system provides appropriate feedback. The application keeps the user informed through status messages.

- **Use of user's language**

The application uses simple language, without technical jargon. The screens, instructions, error messages, and help documentation are simple to understand, and use the user's language.

- **User control and freedom**

- The application does not let the user reverse the user's actions or exit the process at several screens.
- After the user chooses a restaurant, the bottom navigation bar disappears, and the users are unable to access home, search, help and user profile icons. The user needs to use the back button constantly to go back to the search page, if the user wants to use any of these icons.
- While placing the orders, there are no shortcuts to discard the entire cart and start afresh. The users need to remove the items individually.
- While reviewing the order, the application lets the user edit the time of delivery or pick up. But the user cannot choose a future date or time, even in cases where the order originally started as a future order.
- The user is not always given a freedom of choice in certain actions. The user has to save the payment information like card details or use a paypal account, and cannot pay without saving the details in the application.
- New users and curious users cannot browse through the application without registering. The user has to register using his phone number to browse

through the application to understand what the application offers. This can prevent users from considering the application since they have to register without knowing whether they will like the application or not.

- **Consistency and standards**

- The app is consistent at most places, but not everywhere. There is consistency in language used.
- The buttons are green colored throughout orders. But in the payment section and help, the button is in black.
- In the menu, some items have pictures, while others do not.
- Some of the shortcuts are not given appropriate names. The application shows favorite restaurants, but the user cannot add his favorite restaurants. The application curates the list of favorite restaurants based on our orders.

- **Error prevention**

The application provides shortcuts and save options to prevent future errors. The user can save the payment options. All date and time fields use date-pickers and time-picker to prevent the user errors.

- **Recognition rather than recall**

The application uses icons and actions that are familiar to most people. They application provides an intuitive interface, prompts the user about the next action through big bright buttons. The application provides tooltips in the payment section so that the user can easily understand what he needs to enter.

- **Flexibility and efficiency of use**

- The application is intuitive and maps to user's mental models.
- The novice users can use the help document to understand how to use the application.
- The app has options to save address, and payment details. This reduces the work of the user.
- The users can use the reorder button repeat a previous order.

- **Aesthetic and minimalist design**

- All screens have relevant and required information.
- At some places the design needs to be improved to add more elements. The application is not consistent with actions related to rating. While most restaurant applications let the users rate the food items any time after the order is completed, Uber eats users cannot rate for previous orders. Once the order is completed Uber eats provides the rating form, and if the user does not use this opportunity to rate, the user will not be able to rate at a later time. For example, if the user wishes to perform some other action, the user has to decline to rate, and cannot come back to rate at a later time.

- **Error messages and error recovery**

The error messages are appropriate and meaningful. The user is given suggestions about alternate actions he can carry out.

- **Help and documentation**

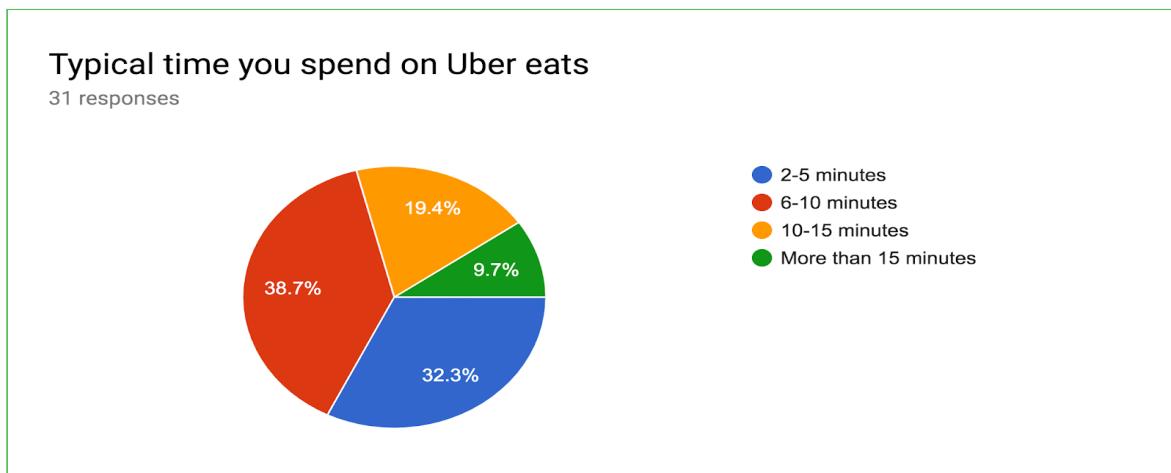
The help can be accessed from user profile. It has instructions on how to use the app, report issues with orders, and frequently asked questions. The instructions are precise, and provide the steps to follow for using the application. The sections are grouped to make it easier for the users to easily find answers to their questions.

### 9.3 User Usability Experience

To understand user's usability experience, we designed a short survey and surveyed 31 people using google forms.

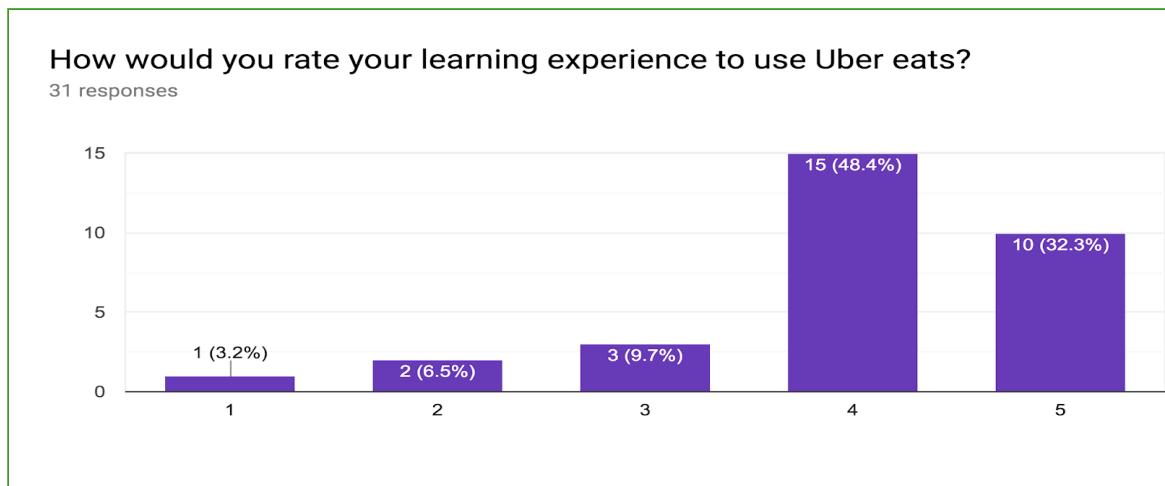
The following questions were asked.

1. Typical time you spend on Uber eats
2. How would you rate your learning experience to use Uber eats?
3. How would you rate your experience while exploring features?
4. Uber eats application breaks down often
5. How would rate the help documentation?
6. Do you find Uber eats trustworthy?
7. How would you rate your experience using Uber eats?



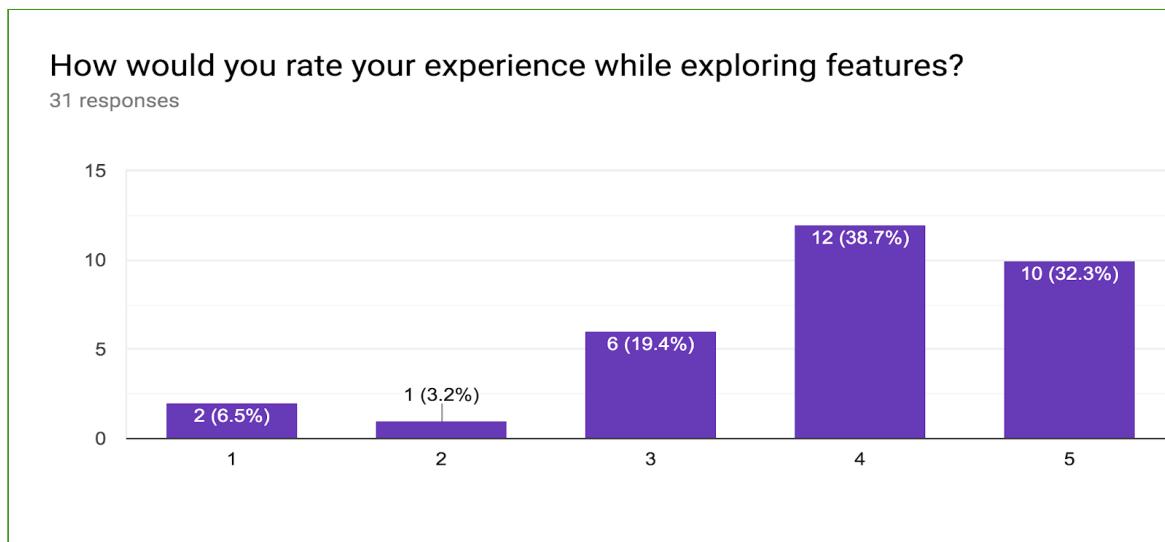
**Figure 9.1** Pie chart depicting typical time spent by users on Uber Eats

Figure 9.1 shows time spent by users on the application. 10 (32.3%) people spent between 2 to 5 minutes on the application. 12(38.7%) people spend between 6 to 10 minutes on the application. 6(19.4%) people spent between 10 to 15 minutes on the application. 3 (9.7%) people spent more than 15 minutes on the application



**Figure 9.2** Bar chart showing users rating their learning experience with Uber Eats

The users rated their learning experience with the application as shown in the figure 9.2. 25 users found the application to easier to learn compared to the 3 people who found the application to be hard to use.

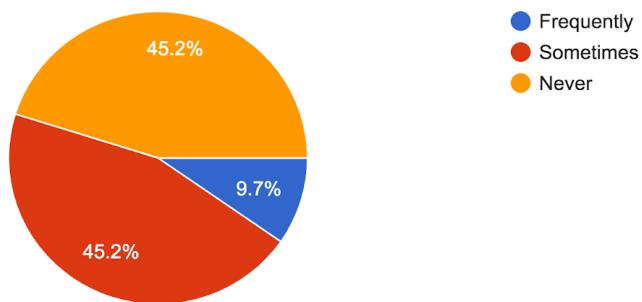


**Figure 9.3** Bar chart showing users rating their exploring experience on Uber Eats

The users rated their experience exploring the application as shown in figure 9.3. The number of users who had positive experience while exploring the application reduced to 22 users.

### Uber eats application breaks down often

31 responses

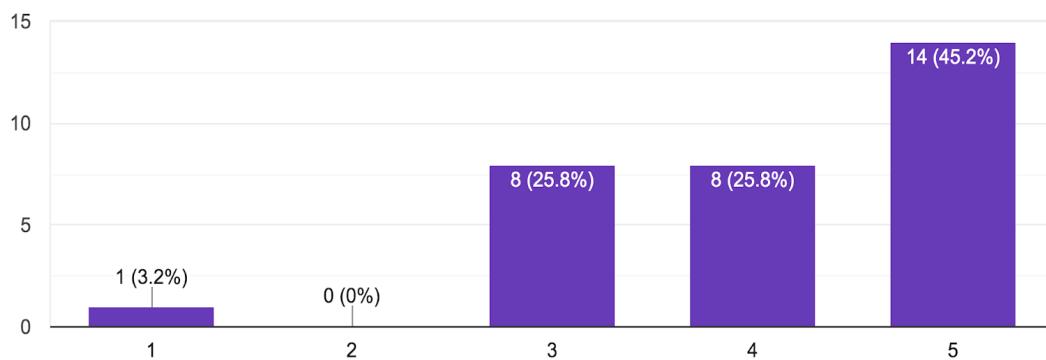


**Figure 9.4** Pie chart showing users experiencing technical difficulties while using Uber Eats

Figure 9.4 shows the number of users facing technical difficulties while using the application. 14 (45.2%) people never experienced any problems while using the application. 14(45.2%) of people experienced technical difficulties sometimes. 3(9.7%)of the people complained about frequent breakdown of the application.

### How would rate the help documentation?

31 responses

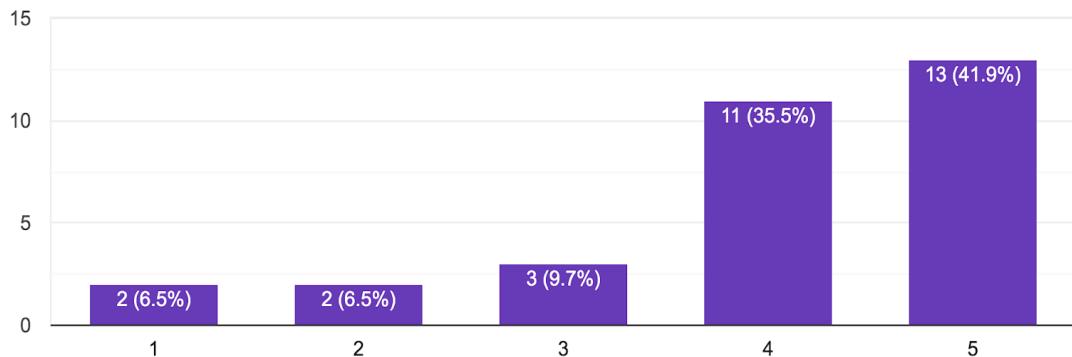


**Figure 9.5** Bar chart showing users rating the help documentation on UberEats

Figure 9.5 shows users rating the help documentation available, with 22 users rating the help documentation positively.

## Do you find Uber eats trustworthy?

31 responses

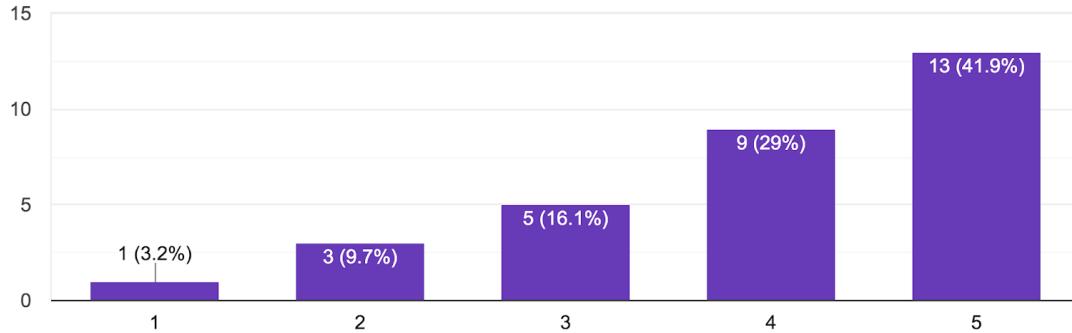


**Figure 9.6** Bar chart showing users perception of Uber Eats being trustworthy

Figure 9.6 shows the distribution of users regarding the trustworthiness of Uber Eats. 13 users find the application to be extremely trustworthy, and 11 users find the application to be trustworthy.

## How would you rate your experience using Uber eats?

31 responses



**Figure 9.7** Bar chart showing users rating using Uber Eats

Figure 9.7 shows user ratings of Uber Eats. 22 users rated Uber Eats 4 or higher. 4 users rated the application 2 and lower.

# 10. Suggested Usability Enhancement from previous design

Based on interface evaluation and observation user study, we suggest usability enhancement below which will improve user usability and smoothness:

1. Merging Home and Search Screen
  - a. Under both screens has sort option and select restaurant option
  - b. Most of the displays are same
  - c. Difference: could enter address in home screen; could search keywords in search screen
2. Adding add/remove quantity option in Cart screen
  - a. Extra page and click involved when add/remove items
  - b. Not obvious to find add/remove option
  - c. Moving the add/remove option to upper page
3. Grouping “Deliver with Uber” option differently.
  - a. In personal screen, “deliver with Uber” is not grouping properly with other options: “Your Favorites”, “Payments”, “Help”, and “Promotions”.
4. Making clickable tabs distinctly visible.
  - a. Under a restaurant screen, text in back color and white background or green color and white background
  - b. No difference in clickable text and non-clickable text
  - c. No difference in delay and non-clickable text
5. Making Delivery change time option more visible.
  - a. Giving estimate time instead of ASAP
  - b. Delivery time change at the bottom of the screen and not visible when 7 or above history address on the top of the screen
6. Minimising redundancy.
  - a. Same results when search different target
  - b. Home and search screen has too much
7. Automatic/having an option to switch to viewing in text alone in poor internet environment
  - a. Few seconds wait to load pictures and can not scrolling down[11]
  - b. Saving time and less frustration
8. Showing the right user stage on the screen
  - a. Should show new address while processing search when entering a new address

## 11. Conclusion

Uber Eats is one of the best food delivery apps in the market. It is one of the apps that is increasing its market share very quickly. It provides the user a lot of options for restaurants and food. There are pick up and delivery options. Also customer can change the time of delivery to future time of their choice.

The main issue that Uber Eats faces is providing all the options to all its customers and each customer has his own unique preferences. To make the options general enough that they cover everyone and specific enough that every customer finds his likings is a very complex problem. Uber Eats tries to solve this by grouping food items into different categories. This does solves the issue but then brings redundancy in picture. A food item now appears in multiple categories. From application design perspective Uber Eats lacks at point that it needs to give clear distinction between clickable and unclickable options plus on feature of changing delivery time.

## 12. What did you learn from this project?

Through this project of analysing a food delivery mobile application, Uber Eats, our team learned different aspects and thought process that goes into designing the UI of an application. We understood the significance of a well designed UI and how it can affect the business. After this project we now know that a UI is as important for an application as the algorithms and technology working in background.

### Chaithra Lakshmi Sathyanarayana

I worked task evaluation, usability metrics to be used for evaluating the application, and application evaluation based on usability metrics.

- Task evaluations have convinced me about the necessity to have intuitive interfaces with positive affordances. I understood the need to ensure that the tasks follow a natural and logical order. Everytime I use an application now, I'm able to appreciate the efforts of designers to make it easier for users to use their applications.
- I understood the importance of evaluating the application from different kinds of user-perspectives. I can now identify and understand how the same application needs to be designed to cater to both novice and expert users.
- When evaluating the application based on usability metrics, I realized that the designers might sometimes need to compromise on the design features to ensure usability. Sometimes, the features that we deem unnecessary or repetitive, users find these features to be helpful
- It is important to make the application easily readable, than use fancy UI. Often we compromise on readability for all types of users in order to make a UI look fancy. But this needs to be avoided.
- I surveyed users to get a better understanding of users' perception of the application. The survey cemented the knowledge that we learnt in class regarding user experience.

### **Christina Perry**

I did user research, create survey, analysis data, user profiling, and suggested usability enhancement. As a HFE student, who focus on UX/HCI, I learnt the proper way to do user profiling, how to design personas, and teamwork skills.

- Since user survey contribute to persona, so survey comes first.
- How to approach people and make them to do survey.
- Survey questions has to be divided by different section. Good number of sections are 3 to 5.
- Google forms is easy to make a survey and analysis data but less design option.
- It was hard to find RGB or HES for Uber Eats branding color.
- Learnt to use Sketch to design persona since other APP is not good enough and easy to use.
- Shaped persona several times and realized only present valuable information.
- Mind and activity flow chart combined with persona will make the reader easy to understand.
- Making a nice readable and easy to understand report is just like designing a UX.
- Learnt from teammate Shivam Tyagi Google doc shortcut skills.

### **Namrata Chandrakant Kasar**

I worked on comparative study of the app with other apps in the market. Besides this I analyzed what kind of Tools and Techniques are used to perform the complete project.

- Comparative study of the UberEats app with other existing food delivery apps in market made me realize though all of these apps serve their primary purpose, all are based on different features and prioritizes different features.
- I understood how feature analysis is done for different mobile apps.
- I learnt about usability testing and what are different ways of usability testing.
- Since we couldn't do the full-fledged usability testing for UberEats, I analyzed how individual feature of app helps to analyze the usability of the product.

### **Shivam Tyagi**

- I did feature analysis in the project. This provided me an opportunity to look at an application from critical point of view, looking for what the designers have done good and where they have missed.
- I learned that it is not easy for designers to satisfy all the necessary principles of UI design. Like if they follow the magic number and keep options within 7 they might have to compromise on options they give.
- The designer has the task to decide which options are most important and then decide their locations on the screen. All this requires a lot of research in form of user surveys because I learned that it is not "what is important to designer", that matters, but "what is important to user", matters.
- So I learned that a good design strikes a balance between different aspects of user expectations.

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