



MAKING FETCH HAPPEN

FetchApp.delivery



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Elon University Interactive Media Capstone Project

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ABOUT FETCH

Fetch is a mobile application for crowdsourced concession delivery at live events held at large venues with assigned seating. The orderers and deliverers are people who are using the app at the same event. During the registration process, a user will select whether they want to use the app to order concessions, deliver concessions, or both.

Purpose

Those who have paid to see a live event with their family or friends may not want to leave their seats to buy concessions. The process of purchasing concessions at a stadium or arena can be made difficult because of the lines and an inability to find a specific item. This is in addition to the time one must spend to wait on having the food or beverages prepared. The process might also be challenging if one has to navigate through a large crowd of people after receiving his or her purchased items. Time and money are particularly valuable to an event attendee.

However, there are also event attendees who do want to leave their seats occasionally to visit friends, stretch their legs, shop, or use the restroom. The Fetch app uses crowdsourcing to pair those who do and do not want to leave their seats in a mutually beneficial way. For a small fee, users can order concessions through the app and have them delivered to their seats by another user who is willing to do so. The deliverer will receive part of the orderer's fee as payment for his or her delivery service.

Deliverers

To deliver food and beverages(alcoholic and non), users are legally required to abide by safety and service policies viewable in the Help section of the app. Deliverers will be given a star rating from one to five by the orderer after each delivery. After their first five deliveries, *deliverers must have and maintain at least a 4-star rating in order to continue delivering.*

Delivery Compensation

For their service, deliverers are compensated based on the total price of each order they deliver. With \$1 being the minimum, deliverers will receive 10% of the order price if the delivery is successfully completed. Payment will be posted to the deliverer's account one-week after the event.

Order Payment

Because receipt of payment is not immediate, *the deliverer is also responsible for initially paying for the order that he or she will proceed to deliver.* The deliverer will be reimbursed one-week later in addition to receiving his or her compensation. In the Delivery Preferences, located in the Settings, a deliverer can choose order minimum and maximum prices. This would allow the deliverer to choose only to get notifications for orders that fit their desired compensation amount and the amount he or she is willing to pay for an order before being reimbursed.

Menus

Menus, aside from information that is available on the stadium's website, are crowdsourced. Menus and menu items can be added by the users then are authenticated by deliverers. The Rewards system encourages users to contribute content. Those who add menus and menu items that become authenticated are awarded points that can be redeemed for special offers on concessions.

Submitting an Order

When a user submits an order, notifications will be sent to app users at the same event with delivery notifications turned on and the appropriate delivery preferences selected. The first user to accept the order request notification will be the deliverer. Users in the same section as the orderer will be given precedence by receiving the notification five seconds before other users.

PROJECT PLANNING

App Sketches (Appendix A)

Requirements Document (Appendix B)

Wireframes (Appendix C)

Logo Sketches (Appendix D)

PRODUCTION

Prior to Phase 1, I ideated, designed, and created a low-fidelity prototype for a similar app allowing its users to order food and drinks from their seats at a stadium. The first app was designed to integrate with the stadium so that its employees would be tasked with providing the delivery service. I then wrote a white paper, titled "The Stadium Experience," detailing elements that can impact an attendee's experience at a live event. The paper presented the ability to improve inefficiencies in that experience using interactive media. Research following that paper discovered that integrating one delivery service app with multiple stadiums using different vendors and different point-of-sale systems would take an extensive amount of work and resources. The solution is crowdsourcing. The Fetch app relies on a crowdsourced database of menus and the delivery service itself can be provided by anyone* who downloads the app.

*In order to deliver, users are required to agree to safety policies and provide a certain standard of service.

Phase 1

During Phase 1, I conducted a vast amount of research concerning food and beverage delivery. I also created personas and interviewed several people in the target audience to determine if they would use an app like Fetch and, if so, what type of features they would like it to have.

To begin production, I put together a technical requirements document then started sketching out the app on paper (Appendix A). Next, I produced detailed wireframes in the Sketch app.

I sketched logos and design ideas on paper then moved to doing the same in Adobe Illustrator. The font I used for the logo is SF Sports Night created by ShyFoundry.

Phase 2

When the designs were complete, I translated them into the Sketch app, replacing the wireframes. I used the Content Generator Sketch Plugin to find a headshot image for the demo deliverer. I used a Google image of Dustin Pedroia's (Red Sox, 2nd Baseman) wife for the demo orderer.

I decided that my presentation audience could most effectively learn about the app through a prototype of the orderer's experience. While screens have been designed for both orderers and deliverers, only registration and order screens are present in the prototype.

I created the interactive prototype using InVision. It contains 137 screens imported in from the Sketch app.

Phase 3

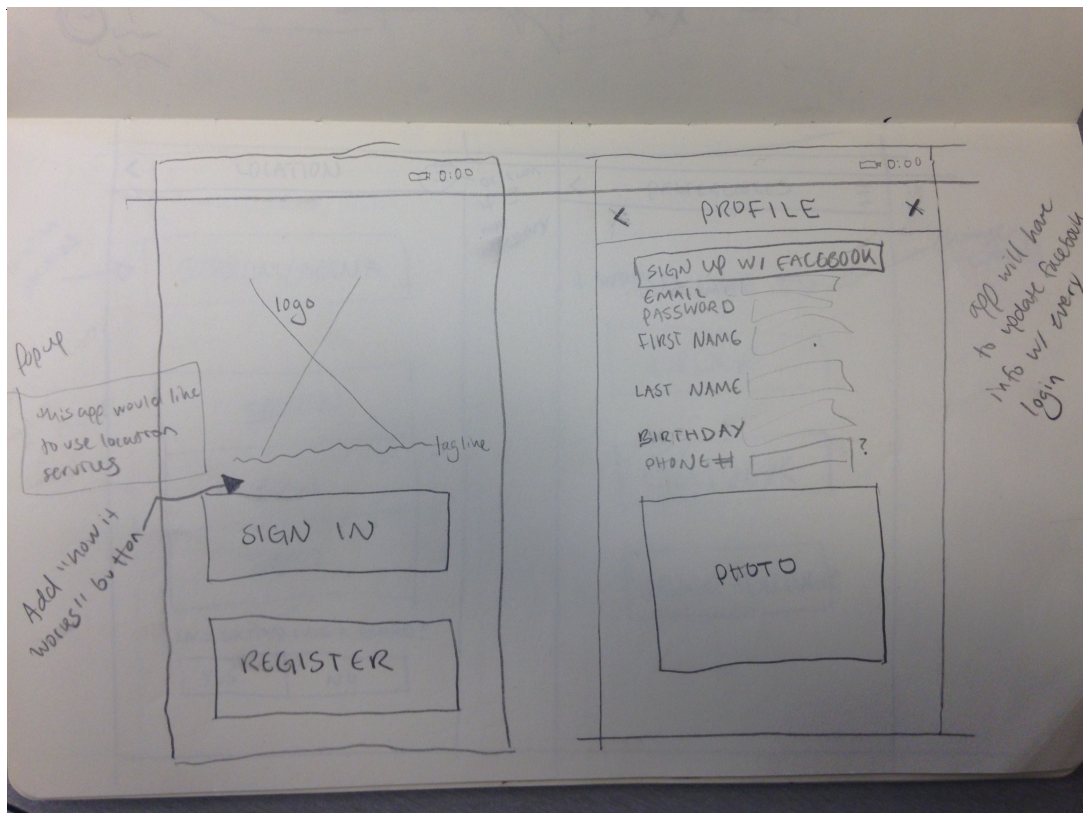
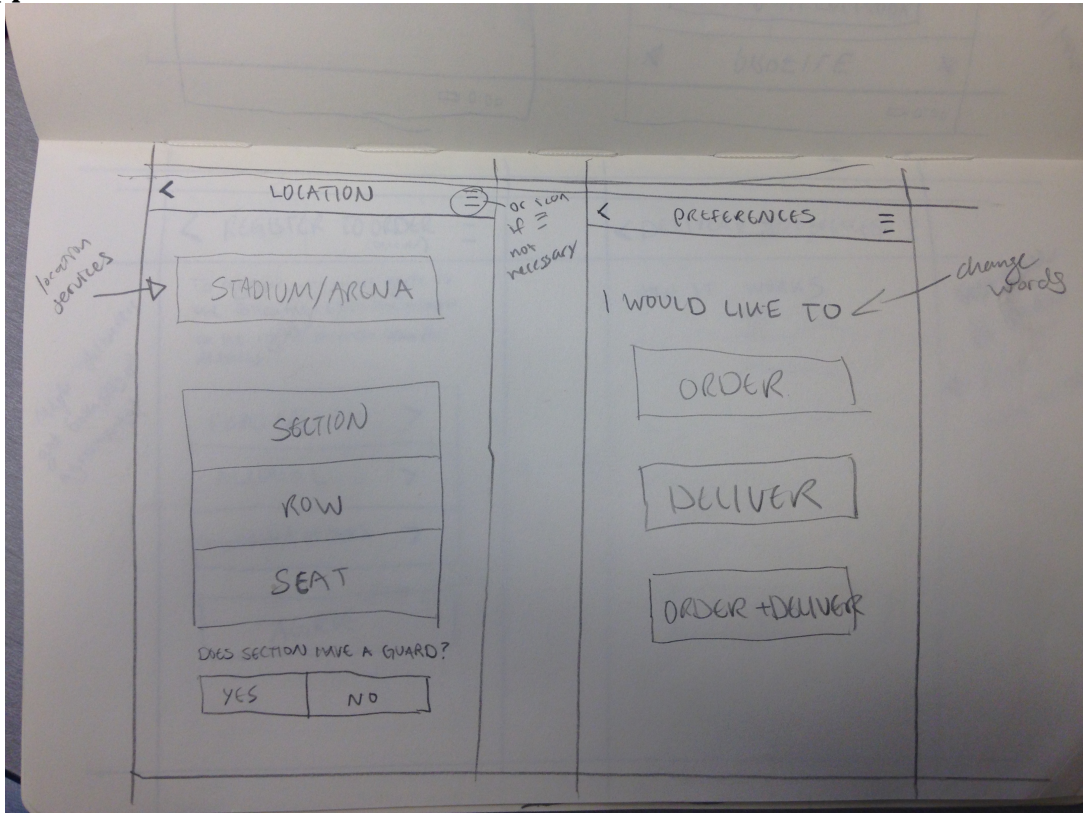
In Phase 3, I had people in the target market test the app evaluating its content and functionality. This included people who were and were not familiar with my app and the production process. The main feature added as a result of this was the Rewards system.

CREDITS

Thank you to all of my peers, professors, friends, and family who helped me generate ideas, solve problems, and improve my project. Without you, my sanity would be lost.

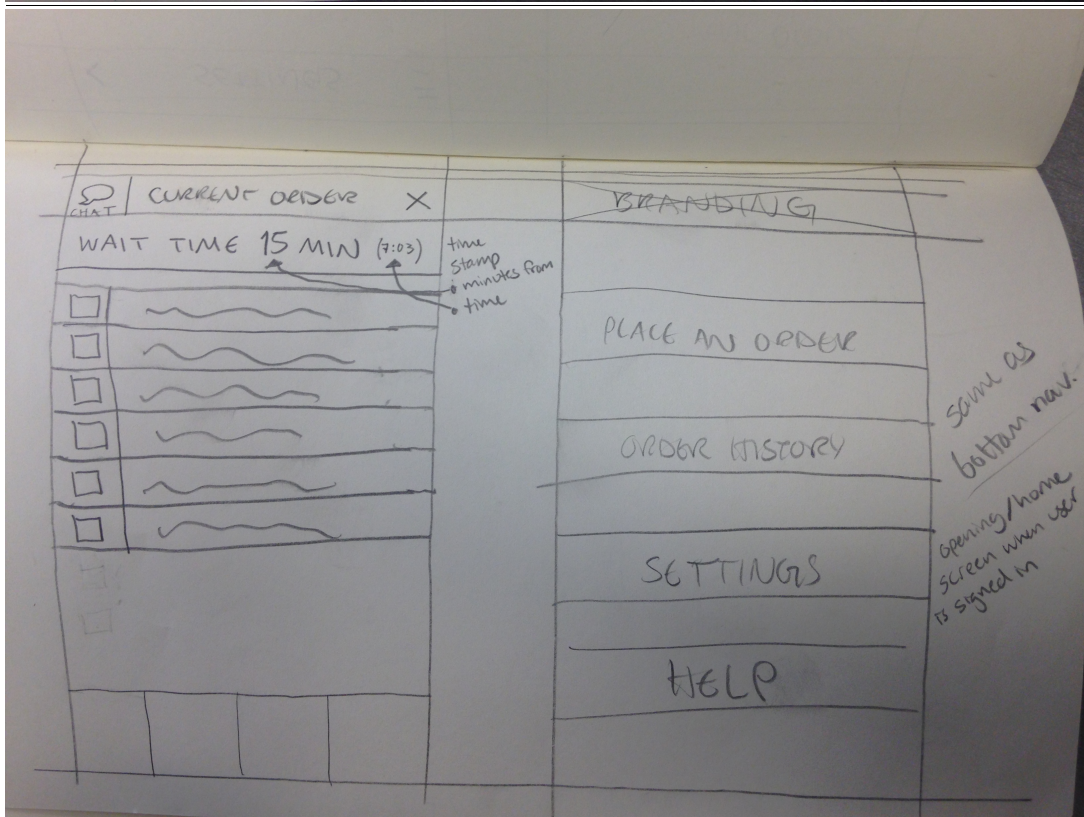
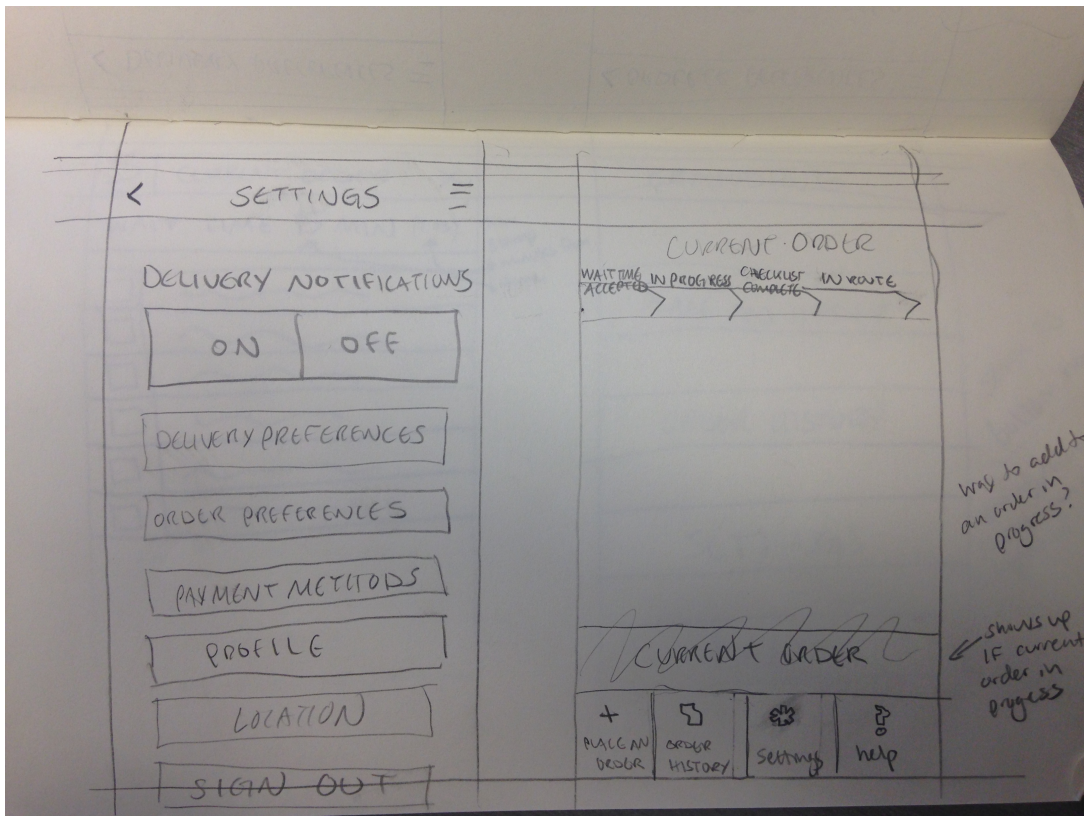
APPENDIX A

App Sketches



| | | | | |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <p>Maybe delivery get businesses agreements?</p> | <p>< REGISTER TO ORDER (deliver) ≡</p> <p>To register, you must agree to the following. Click the arrow on the right of each item for details.</p> <div> <div>FOOD SAFETY ></div> <div>ALCOHOL ></div> <div>Invalidated orders ></div> <div>AGREE</div> </div> | <p>← →</p> | <p>< DELIVERY PREFERENCES ≡</p> <p>HOW IT WORKS</p> <div> <div></div> <div></div> <div></div> <div></div> </div> <div>OK</div> | <p>best place to show this - home screen?</p> |
| | | | | |

| | | | |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>options will depend on location →</p> | <p>< DELIVERY PREFERENCES ≡</p> <p>SECTIONS TO SERVE</p> <div> <div>ALL</div> <div> <div>1-10 ></div> <div>11-20 ></div> <div>21-30 ></div> </div> <div> <div>31-40 ></div> <div>41-50 ></div> <div>51-60 ></div> </div> </div> <p>WILLING TO SERVE ALCOHOL</p> <div> <div>YES</div> <div>NO</div> </div> <p>ORDER PRICE</p> <div> <div>MIN</div> <div>MAX</div> </div> <div> <div>\$</div> <div>\$</div> </div> <div>ADD ACCOUNT & PAYMENT</div> | | <p>< ORDERER PREFERENCES ≡</p> <p>AUTO-ACCEPT DELIVERER</p> <div> <div>NEVER</div> <div>ALWAYS</div> <div>If > 2 stars</div> <div>If > 3 stars</div> <div>If > 4 stars</div> </div> |
| | | | |



APPENDIX B

Requirements Document

February 20, 2016

1.0) HOME

~~App Launches and prompts users to check the appropriate box:~~

- ~~• I am at home~~
- ~~• I am at an event~~

2.0) MAKE A PROFILE

- App prompts unregistered users to make a profile
- See the "User Profiles" section (5.0)

3.0) INPUT LOCATION

Location Services will suggest stadium or home address

- Add seat number, row, section
 - Does section have a guard?
 - If yes, only people whose seats are also in that section and have the appropriate delivery preferences will receive notifications.
- ~~• OR: add/confirm/change address~~
 - ~~○ Add notes, ex: gate code~~

Add Location

- Must be a location Google can recognize
- If it's a stadium/arena, must have stadium/seat map available online - app can somehow pull seating information based on link

4.0) ADD MENU

Take picture of menu, app will try to recognize names and prices based on picture quality

- Manually upload a new menu item
 - ~~○ Two users must confirm for a new addition to be authenticated~~
 - Notification: reminder that deliverer is not required to deliver this item

5.0) USER PROFILES

- Users will be prompted to make a profile.
- They will select if they would like to register as an orderer, deliverer, or both.
 - Some of the profile settings will be the same for both
 - Login with Facebook
 - Age

- Email
 - Email preferences
 - Have every action confirmed via email
 - Emails with promotions
 - Emails advertising if people are registered as attending an event
- Photo
- ~~Make or sync payment account (Squarecash)~~
 - ~~Or I could just make my own payment system? People would have to sync a bank or debit account with the app for money transfers between users (like Squarecash)~~
- Upcoming Events
 - Pre-register for upcoming events
 - Get special promos for upcoming events

5.1) Deliverer

5.1.1) Register as Deliverer (Deliverer Profile)

- Agreements – App will need deliverers to agree to the following before they can register as a server:
 - Accept responsibility for
 - Food care
 - Alcohol service
 - Delivery confirmation
 - Selecting appropriate wait times
 - Will have to pay \$ if...
- Option to login with Facebook
- Age
 - If user is under 21, they will not receive notifications for orders that contain alcohol
- Photo
 - App has to recognize if it's a valid photo
- Phone #
- Email Address
- Seat Location
 - Section
 - Row
 - Number
- Payment info
- Delivery preferences

- Sections willing to serve
 - Willing to serve alcohol (if age 21+)
 - Willing to serve if order is \$min - \$max
- Delivery History/Records
 - Can scan in receipts from paying out of pocket

5.1.2) Delivery Process

- Wait times - App will need a timer for the whole process
 - If wait time is ≥ 15 minutes, can select reason(s) for delivery time
 - Moderately long line
 - Really long line
 - Will need to visit more than one vender
- Shared Checklist (See Appendix A)
 - As items are acquired, deliverer can check them off and orderer can see it
- If item doesn't exist:
 - "Can't deliver this item because:"
 - Item does not exist
 - Could not find item
 - Item and cost do not match
 - Other
- Delivery confirmation button
- Chatroom with person who ordered

5.2) Orderer

5.2.1) Profile

- Agreements
 - Deliverer is not responsible for providing invalidated items in an order
 - User must be 21 to purchase alcohol. User must be able to provide valid ID. If it cannot be provided upon request, alcohol will not be delivered and orderer will still be charged for it and subjected to a \$5 fee
- Age
- Payment preferences
- Order history
- Shared Checklist/Order Status
 - As items are acquired, deliverer can check them off and orderer can see it

5.2.2) Order Screen

- Add items already listed
- Manually add items (see Add Menu section)

5.2.3) Order Pending

5.2.4) Accept/Reject Deliverer

5.2.5) Chatroom with person delivering

5.2.6) Confirm delivery

Confirm delivery

- Orderer confirms after they've received items

Is order correct?

- Yes
- No
 - Missing item
 - Select item from order
 - Item is wrong
 - Select which item is wrong
 - Add comment
 - Request reimbursement
 - Will need a review committee to possibly reimburse person for item

~~5.2.7) Tip deliverer~~

5.2.8) Rate deliverer (optional)

- Stars
- Comments

6.0) FLOW

1. Person A places order
2. App will prompt Person A to take a selfie
3. Users notified if order fits their delivery preferences
 - a. People who are closer get notification faster
 - b. If no one confirms in 2 minutes, order is canceled
4. Person B confirms they will deliver
- ~~5. Person A approves deliverer based on ratings~~
 - ~~a. If Person A does not approve, they can ask for a new deliverer. If there are no other deliverers, Person A can opt to cancel the order.~~
- ~~6. Person B notified of approval~~
7. Chatroom and Shared Checklist open
8. Person B gets 5 minutes to input expected delivery time
 - a. Checklist item 1:
 - i. Person B input delivery time
 1. Reminded Person B to input expected delivery time
 2. Reminder Person B to input expected delivery time again
 - a. If Person A cannot get in touch with Person B via the chatroom, they can cancel order at no charge
9. Person A views expected time and confirms or can cancel order if time exceeds X
 - a. Person A only has 60 seconds to confirm or begin cancelation process
 - b. Depending, Person A might still be charged delivery fee
10. Person B uses the checklist to mark off the ordered items as they are acquired

- a. Person B selects ETA after items are acquired (optional)
 - i. Person A gets notification if Person B selects ETA
- 11. Person B proceeds to deliver order
- 12. Person B clicks “arrived”
- 13. Person A shows (large) notification to Person B so Person B can confirm they have found the right person
 - a. If alcohol is in the order, Person B will be prompted to check the ID.
 - i. The app will provide an option for Person B to type in the birthday on the ID OR Person B can just click “OK”
- 14. Person B passes food/drinks to Person A
- 15. Person B clicks “delivered”
- 16. Person A receives food/drinks
- 17. Person A clicks “confirm delivery”
- 18. Person B can leave
- 19. Person A answers, “Is order correct”
 - a. If no, Person A identifies what’s incorrect
 - i. Customer service might have to deal with it
- ~~20. Person A can tip Person B~~
- 21. Person A can rate Person B

APPENDIX A

Sample Shared Checklist

| | |
|--------------------------|----------------------------------|
| <input type="checkbox"/> | Select expected delivery time |
| <input type="checkbox"/> | Orderer confirmed delivery time* |
| | Order |
| <input type="checkbox"/> | Hot dog |
| <input type="checkbox"/> | +Ketchup |
| <input type="checkbox"/> | +Mustard |
| <input type="checkbox"/> | Cheeseburger |
| <input type="checkbox"/> | +No Onions |
| <input type="checkbox"/> | Beer 1 |
| <input type="checkbox"/> | Beer 2 |
| <input type="checkbox"/> | Fries |
| <input type="checkbox"/> | In Route |
| <input type="checkbox"/> | ETA: <5 minutes |
| <input type="checkbox"/> | ETA: 5-10 minutes |
| <input type="checkbox"/> | ETA: >10 minutes |

*This box will automatically appear checked if orderer does not confirm or cancel in 60 seconds

APPENDIX C

Wireframes

Sketch 9:41 AM 100%

This is a line of copy. This is a line of copy.

SIGN IN

REGISTER

HOW IT WORKS

Sketch 9:41 AM 100%

Back Profile

SIGN UP WITH FACEBOOK

EMAIL

PASSWORD

FIRST NAME

LAST NAME

BIRTHDAY

PHONE #

ADD PHOTO

SUBMIT

Sketch 9:41 AM 100%

Back Location

STADIUM/ARENA

SECTION

ROW

SEAT

DOES YOUR SECTION HAVE A GUARD?

YES

NO

SUBMIT

Sketch 9:41 AM 100%

Back Preferences

I WOULD LIKE TO USE APPNAME TO:

"AppName" Would Like to Send You Notifications

Notifications may include alerts, sounds and icon badges. These can be configured in Settings.

Don't Allow

OK

ORDER & DELIVER

Sketch 9:41 AM 100%

Back Preferences

I WOULD LIKE TO USE APPNAME TO:

Wait! "AppName" is unable to operate without access to notifications.

Cancel

Allow

DELIVER

ORDER & DELIVER

Sketch 9:41 AM 100%

Back Preferences

I WOULD LIKE TO USE APPNAME TO:

ORDER

DELIVER

ORDER & DELIVER

Sketch 9:41 AM 100%

Back Agreements

To complete your registration, please read and agree to the following. Click the arrow to the right of each agreement for details.

Agreement 1

Agreement 2

Agreement 3

Agreement 4

AGREE

Sketch 9:41 AM 100%

Back Agreements

AGREEMENT 1

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi vel tellus pulvinar, convallis arcu imperdiet, lacina est. Donec egestas nisi id nisi dapibus, non elementum lacus imperdiet. Quisque gravida, dolor volutpat tristique rhoncus, sapien massa sagittis neque, in isodales neque diam a arcu. Vivamus malesuada eget eros ut facilisis. Duis quam dolor, efficitur et accumsan et, accumsan ac tellus. Sed lacus odio, bibendum fermentum magna at, consequat convallis eros.

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Sketch 9:41 AM 100%

Back Delivery Preferences

SECTIONS TO SERVE

ALL

1-10

11-20

21-30

31-40

41-50

51-60

ARE YOU WILLING TO SERVE ALCOHOL?

YES

NO

ORDER PRICE

MIN

MAX

ADD PAYMENT METHOD

SAVE

Sketch 9:41 AM 100%

Back Delivery Preferences

SECTIONS 1-10

ALL

Section

Rows

1

2

3

4

5

6

7

8

9

10

SAVE

Sketch 9:41 AM 100%

Back Delivery Preferences

ADD PAYMENT METHOD

Enter debit card to be reimbursed for purchases and to be paid for service.

Name on Card

Card Number

Expiration Date

CVV

SAVE

Sketch 9:41 AM 100%

Back Order Preferences

AUTO-ACCEPT DELIVERER

NEVER

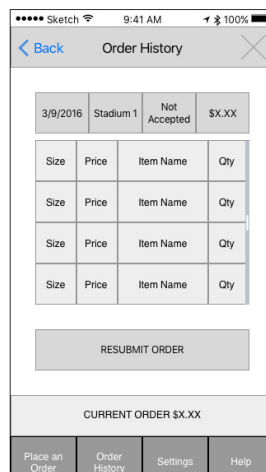
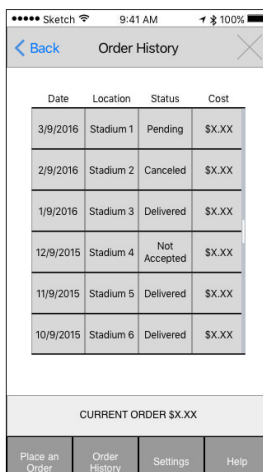
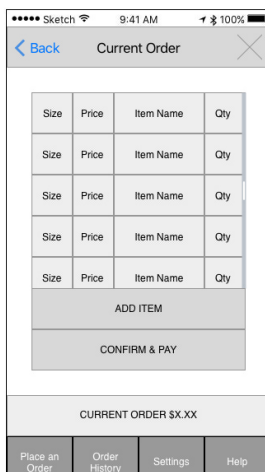
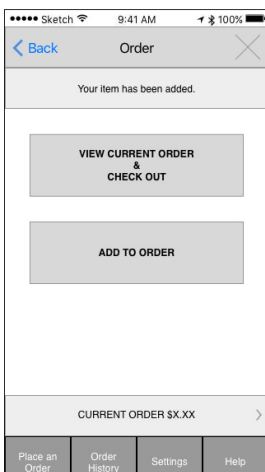
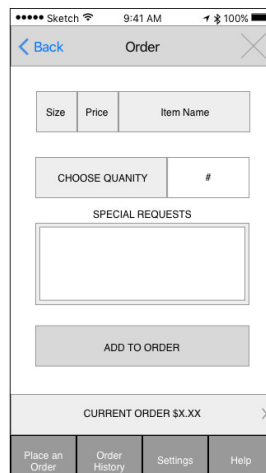
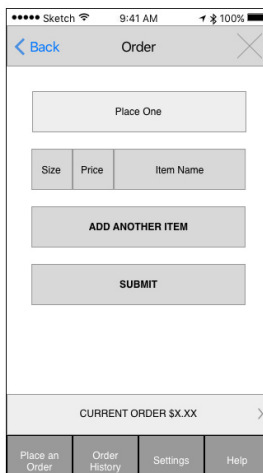
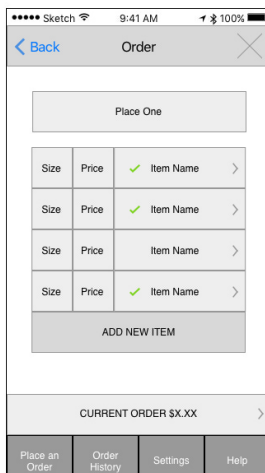
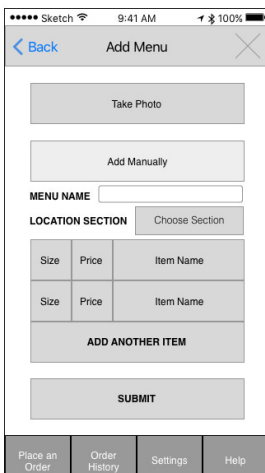
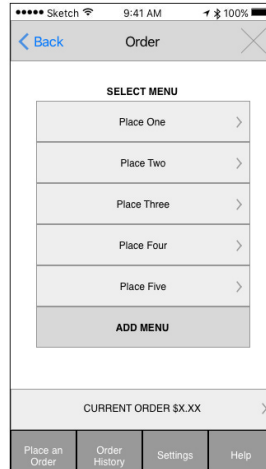
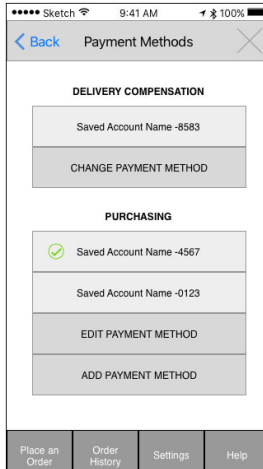
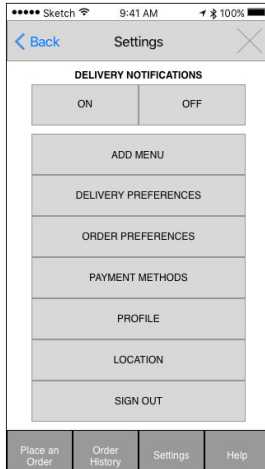
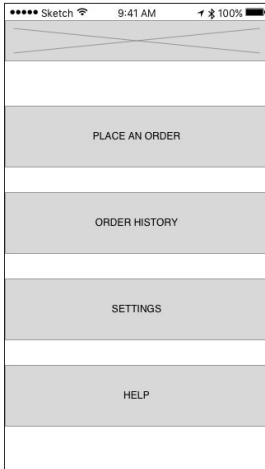
ALWAYS

IF > 3 stars

IF > 4 stars

IF > 5 stars

SAVE



Back

Check Out

PAYMENT METHOD

✓

Saved Account Name -4567

EDIT PAYMENT METHOD

MAX WAIT TIME

A deliverer will have this much time to accept your order.

2 min

3 min

4 min

5 min

6 min

SUBMIT ORDER

CURRENT ORDER \$X.XX

Place an Order

Order History

Settings

Help

Back

Check Out

SEARCHING FOR A DELIVERER...

MAX WAIT TIME: 5 MINS

03:51

CURRENT ORDER \$X.XX

Place an Order

Order History

Settings

Help

Back

Check Out

JOEY CAN DELIVER YOUR ORDER

Random User: 5 ⭐ Joey was great. He provided accurate wait times, was quick, and my order was correct... [Read More](#)

DECLINE

03:39

ACCEPT

CURRENT ORDER \$X.XX

Place an Order

Order History

Settings

Help

Back

Current Order

ESTIMATED DELIVERY TIME: TBD

ORDER CHECKLIST

☐

Provide estimated delivery time (EDT)

☐

EDT confirmed

ORDER

☐

Hot Dog

☐

Ketchup

☐

Cheeseburger

☐

No onions

☐

Samuel Adams

☐

IN ROUTE

Place an Order

Order History

Settings

Help

Back

Current Order

ESTIMATED DELIVERY TIME: 00:15 | 9:56am

Cancel Order

00:43

Confirm

ORDER CHECKLIST

☒

Provide estimated delivery time (EDT)

☐

EDT confirmed

ORDER

☐

Hot Dog

☐

Ketchup

☐

Cheeseburger

☐

No onions

☐

Samuel Adams

☐

IN ROUTE

Place an Order

Order History

Settings

Help

Back

Current Order

ESTIMATED DELIVERY TIME: 00:15 | 9:56am

ORDER CHECKLIST

☒

Provide estimated delivery time (EDT)

☒

EDT confirmed

ORDER

☒

Hot Dog

☒

Ketchup

☒

Cheeseburger

☒

No onions

☒

Samuel Adams

☒

IN ROUTE

Place an Order

Order History

Settings

Help

Back

Current Order

JOEY HAS ARRIVED WITH YOUR ORDER

Show Joey this screen.

ORDER 0432

Place an Order

Order History

Settings

Help

Back

Current Order 0432

ARRIVED

ALCOHOL

REQUEST ID

Day

BirthDay

Month

Year

DECLINE SERVICE

CONFIRM AGE

DELIVERED

☒

DELIVERY CONFIRMED

Make sure user confirms delivery before you leave.

Place an Order

Order History

Settings

Help

Back

Current Order 0432

ARRIVED

ALCOHOL

REQUEST ID

Day

BirthDay

Month

Year

DECLINE SERVICE

CONFIRM AGE

Underage/No ID

Intoxicated

Other

Make sure user confirms delivery before you leave.

Place an Order

Order History

Settings

Help

Back

Current Order

JOEY HAS ARRIVED WITH YOUR ORDER

Show Joey this screen.

JOEY has requested to see your ID.

Decline

OK

ORDER 0432

Place an Order

Order History

Settings

Help

Back

Current Order

Did you receive your order?

NO

YES

Is your order correct?

NO

YES

Rate Joey

★

★

★

★

★

Add comment

DONE

Place an Order

Order History

Settings

Help

Back

Current Order

Which items are incorrect?

ORDER

☐

Hot Dog

☒

Ketchup

Item is missing

Replaced with wrong item

Other

☐

Cheeseburger

☐

No onions

☐

Samuel Adams

Add comment

Request full reimbursement

Request fair compensation

DONE

Place an Order

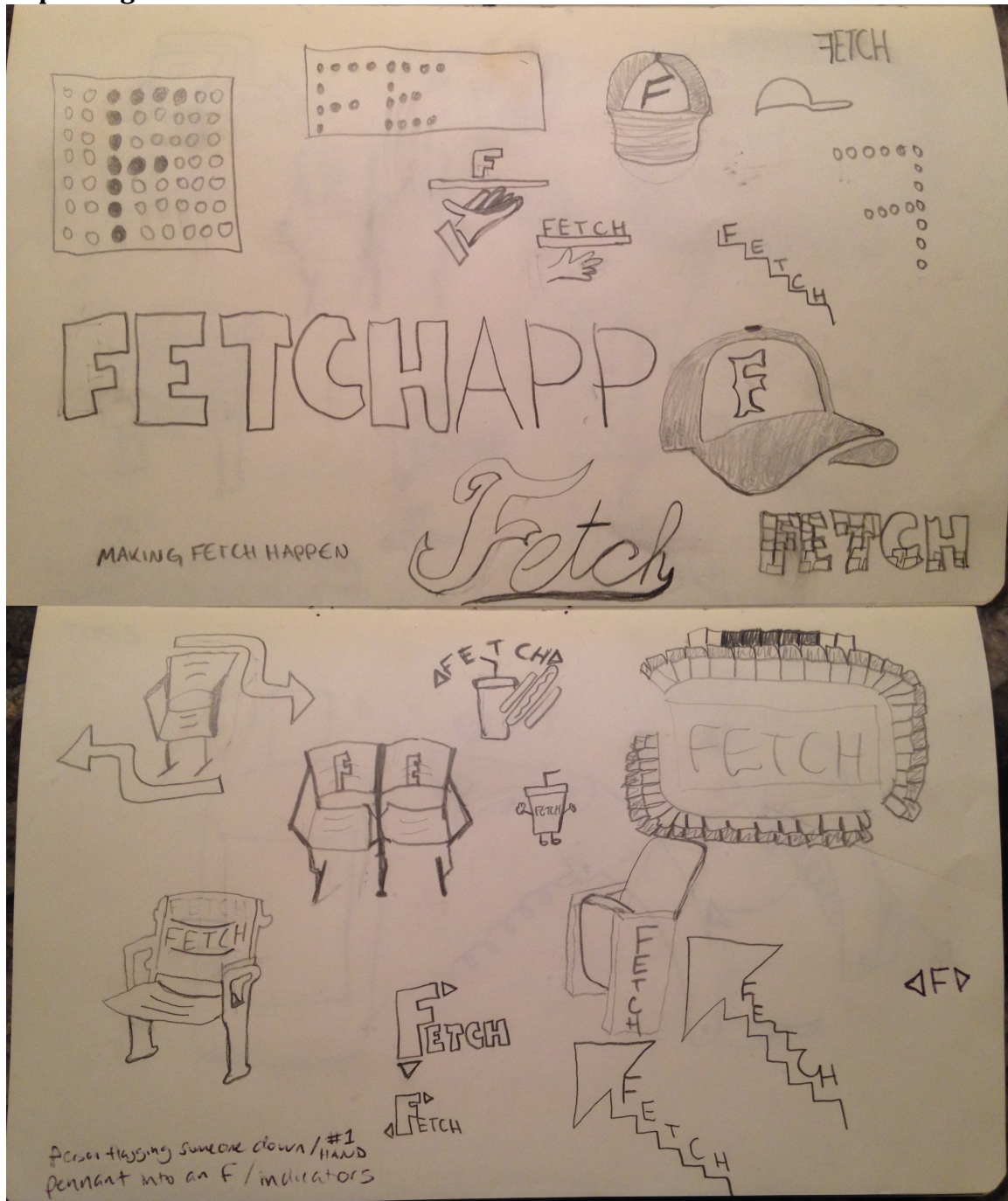
Order History

Settings

Help

APPENDIX D

Paper Logo Sketches



Digital Logo Sketches

