



# ULLockedIN

## Storyboard and Low-Fi

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Charlie 2



# Problem/Solution Overview

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- Problem: People need help navigating around crowded areas and securing their bikes while on campus
- Solution: Create an app that dynamically routes the user through the UL Campus to the nearest bike while reporting environmental conditions allowing the users to make informed decisions while riding.

# Tasks (What does the user want?)

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1. Guided on the most efficient and least crowded route to closest available bike rack in the vicinity of their destination
2. To get live updates from the app about the conditions of road and sidewalk
3. To know there is a place in the bike rack available for them

# Existing Solution: Google Maps

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- Doesn't use the ULL Schedule to properly address the user's need for a traffic free/traffic reduced path
- Doesn't know the bike racks are leaving to find the bike racks themselves
- Doesn't report the status bike rack meaning the user can waste time trying to find space
- Doesn't account for road status or how weather will affect the biking experience on UL
- Overall: Good for general broad area, but it is clear that more tailored experience is necessary



# Komoot - Better but flawed

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- While Komoot has more focus on the communities it serves it fails in a few key areas
- Komoot does classify roads based on their characteristics, but does not indicate/or allow users to indicate bike road quality
- More focused on planning long trips rather than small trips made more often



# ULLockedIN - Refresh

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- A digital solution to a physical problem
- Auto routes bikers based off various conditions
- Crowdsourced reporting
- Easy to use

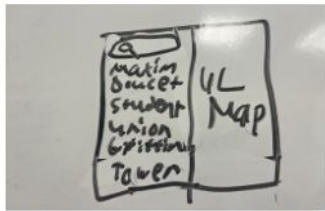


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# Storyboard



Bob uses his phone to login to the ULLockedIn app to begin his journey to Maxim Doucet



Bob accesses the slide menu to select Maxim Doucet from the building list



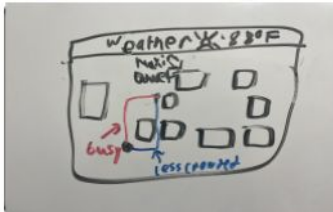
The app shows him the quickest route to the closest bike rack to Maxim Doucet and the current weather



Bob begins riding his bike to the closest bike rack to Maxim Doucet Hall



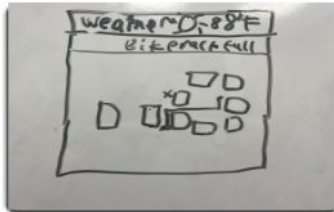
Bob gets an alert from the ULLockedIn app



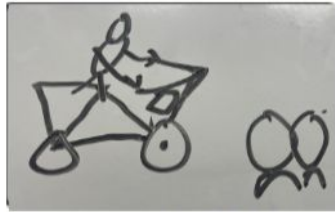
The app tells him that the current route has a lot of traffic and points to an alternate route



Bob selects the fastest route to his destination and continues to follow his selected path



After another alert, the app updates Bob that the bike rack is full and redirects him to the closest empty one



Bob approaches the bike rack and finishes his navigation with ULLockedIn



Bob turns off the app, secures his bike, and goes to class all thanks to the help of ULLockedIn

# Why did we choose this?

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- It seemed like the most obvious solution because people already use navigation apps, this one just gives more information to the user



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# Strengths

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- +Highly available (most people have phones)
- +Tailored to specific users needs to ensure that it isn't irrelevant
- +Easy to use (Most people know how to use a navigational app)
- +Adapts to changes throughout the day to and allows users to report things they see "in the field"



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# Weaknesses

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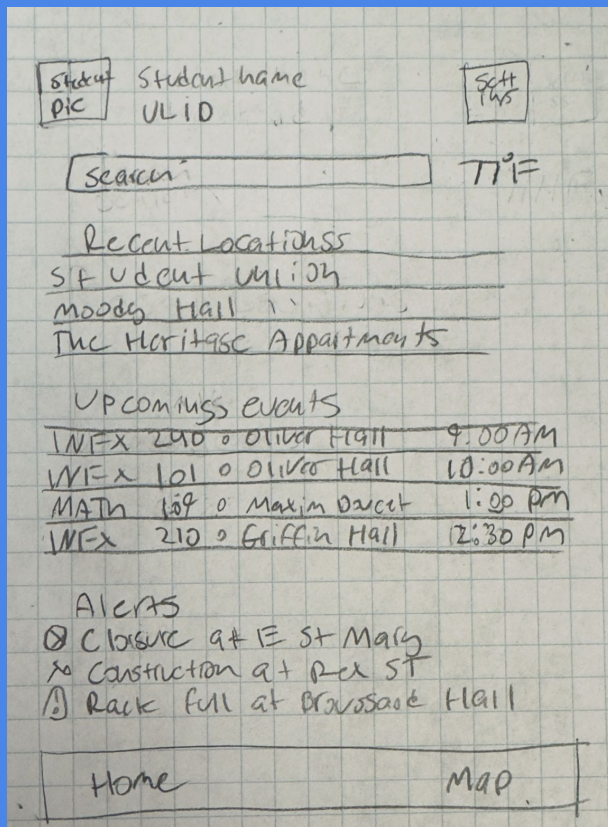
- Niche (Only really made to work on UL campus and further expansion is most likely impractical)
- Reliant on user reporting (especially on road conditions, unpredictable traffic, and bike rack space)
- Possibility of accident if someone focuses too much on the app and not the road



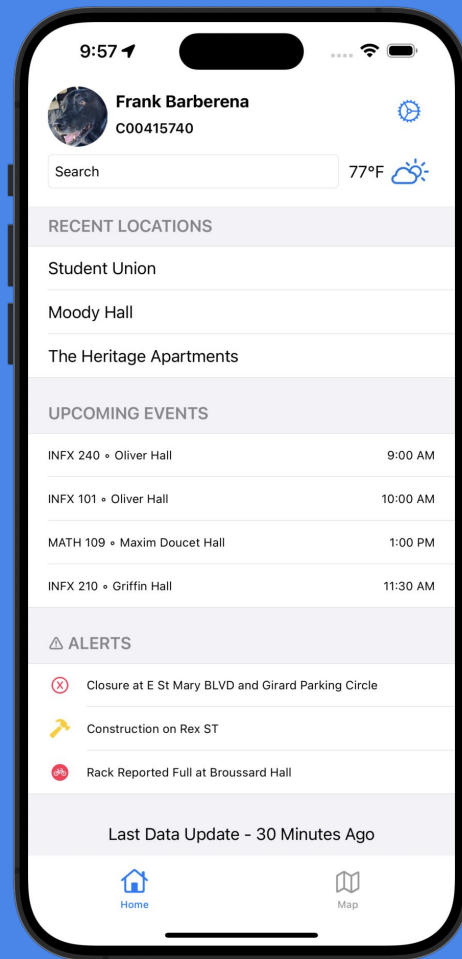
ULLockedIN

# Home

## Paper Prototype



## Xcode Rendering



### Tasks fulfilled

1. Guided on the most efficient and least crowded route to closest available bike rack in the vicinity of their destination
2. To get live updates from the app about the conditions of road and sidewalk
3. To know there is a place in the bike rack available for them

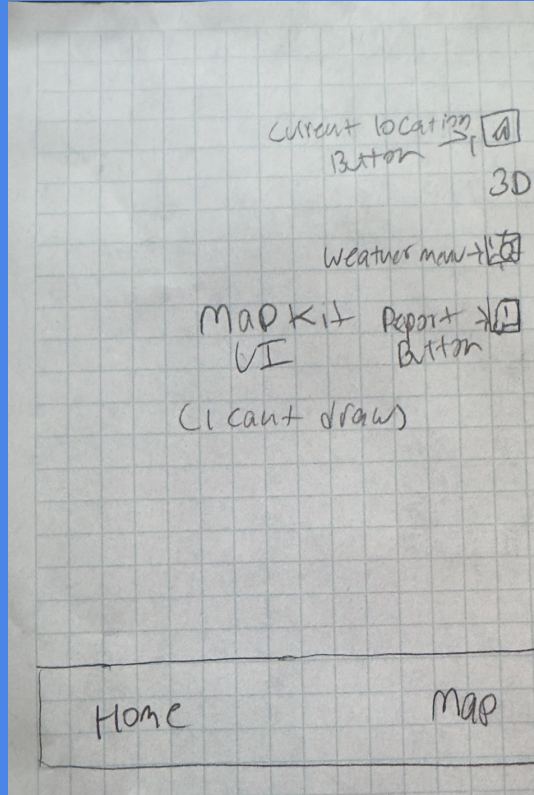


# Map

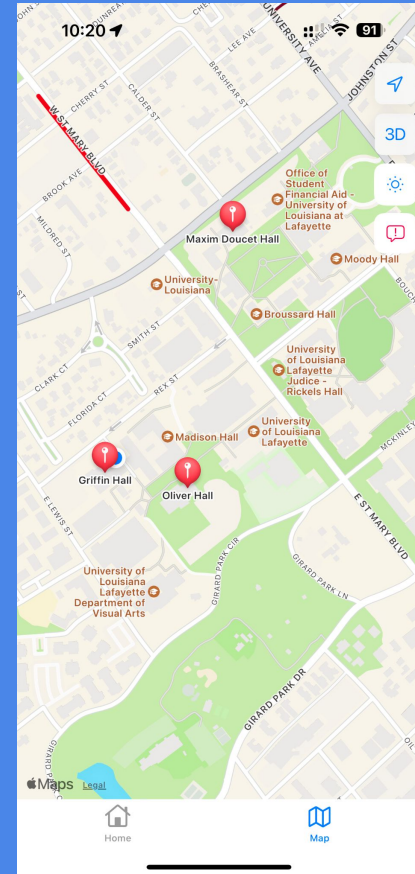
## Tasks fulfilled

- 1 Guided on the most efficient and least crowded route to closest available bike rack in the vicinity of their destination
- 2 To get live updates from the app about the conditions of road and sidewalk

## Paper Prototype



## iOS Simulation



Simulated on an iPhone 15 Pro Max, Running iOS 17.5  
Weather data provided by the National Weather Service  
Routing Data Provide Apple

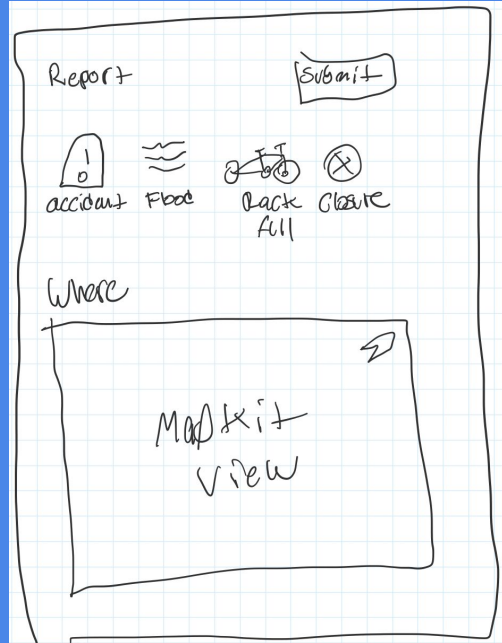


# Reporting

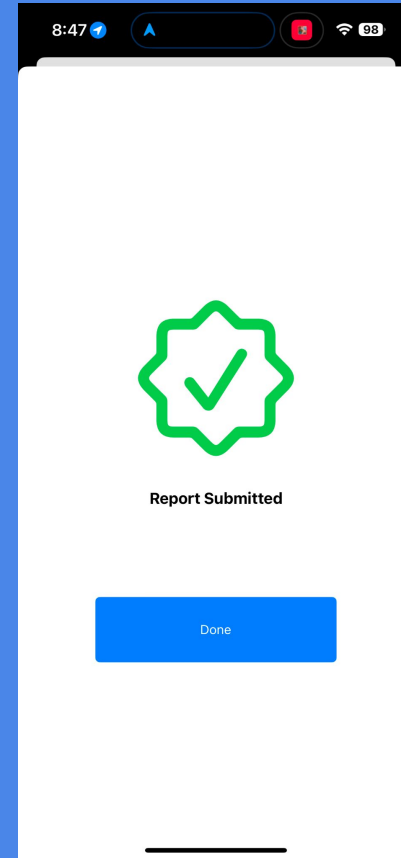
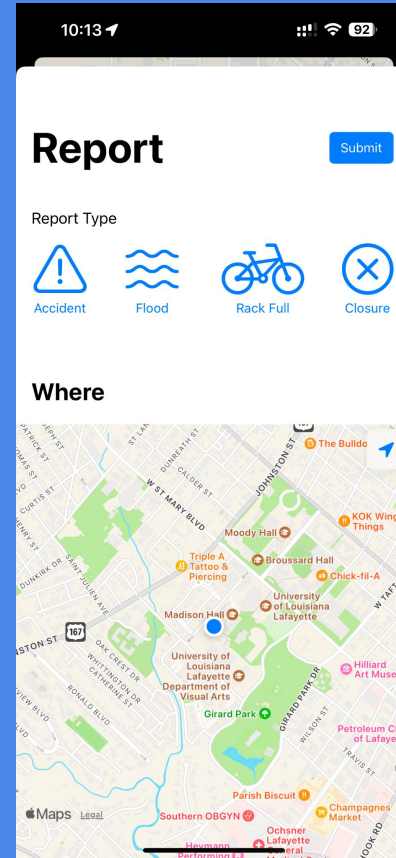
Tasks fulfilled

2. To get live updates from the app about the conditions of road and sidewalk

## Paper Prototype



## iOS Simulation



Simulated on an iPhone 15 Pro Max, Running iOS 17.5

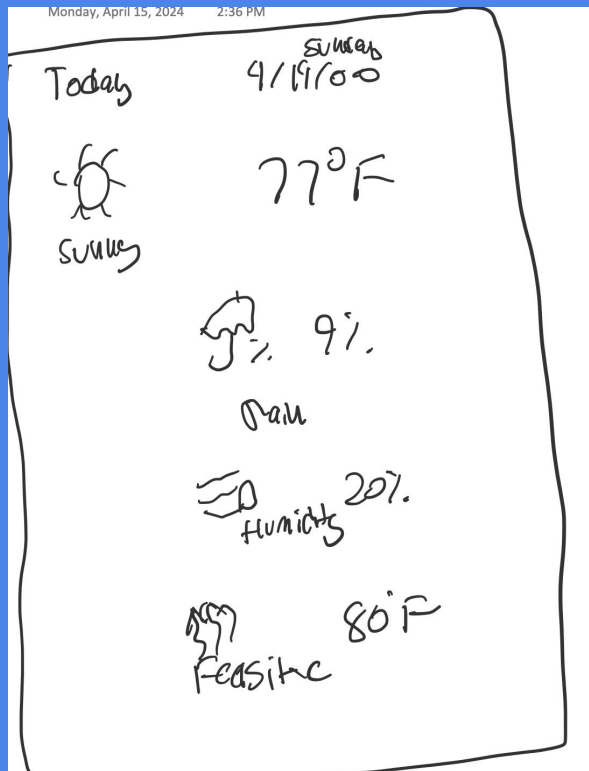


# Paper Prototype

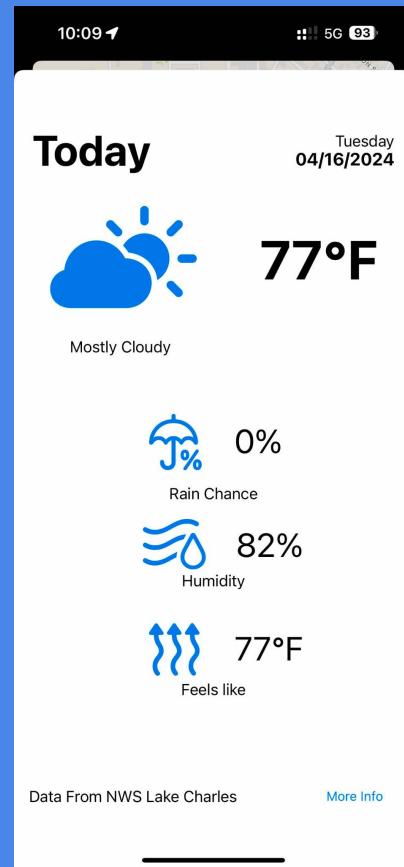
# Weather

Tasks fulfilled

- 2. To get live updates from the app about the conditions of road and sidewalk



# iOS Simulation



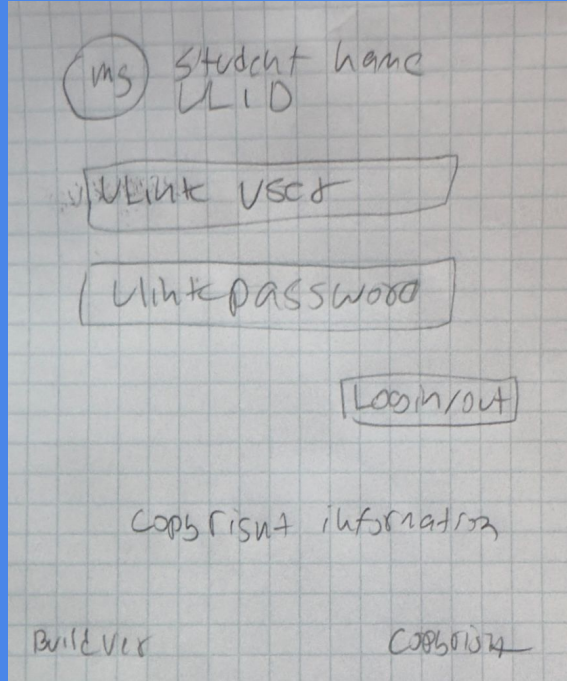


# Settings

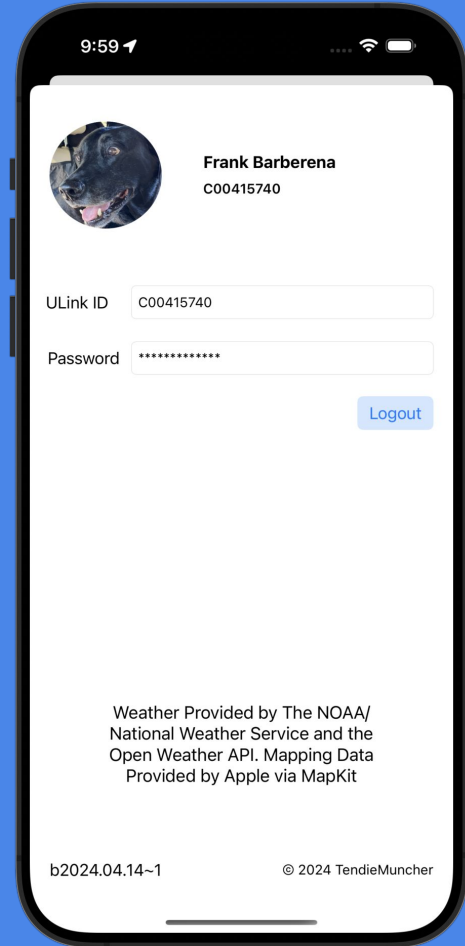
Tasks fulfilled

None But it is necessary for security reasons

## Paper Prototype

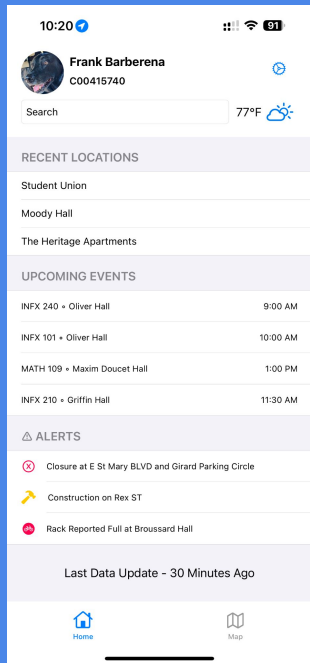


## Xcode Rendering

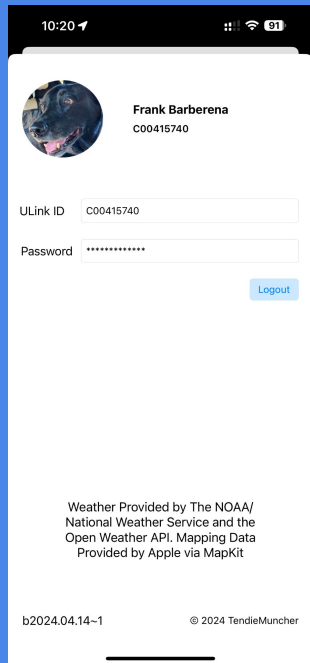


# ULLockedIN - Simulation Overview

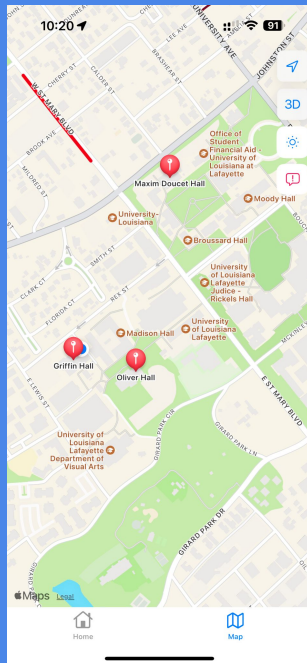
## Home



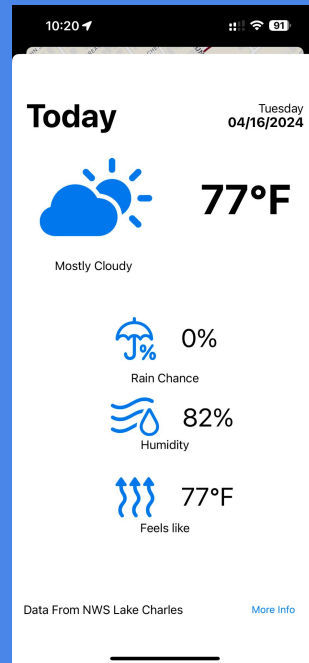
## Settings



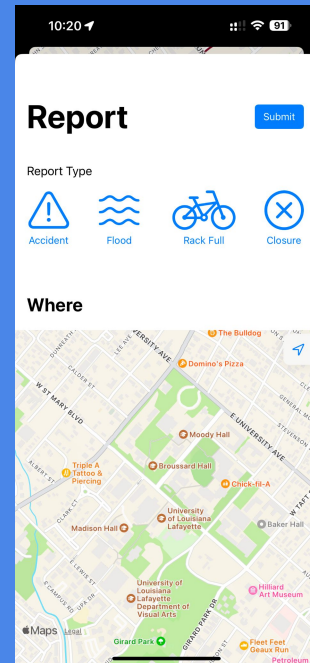
## Map



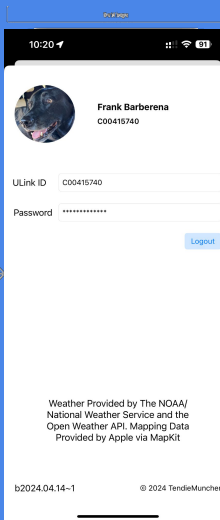
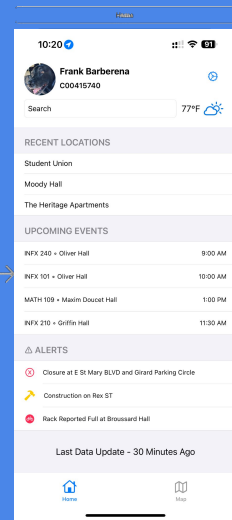
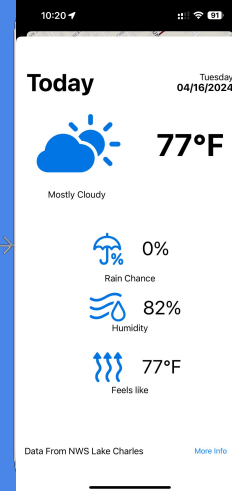
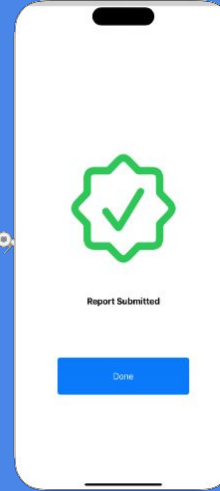
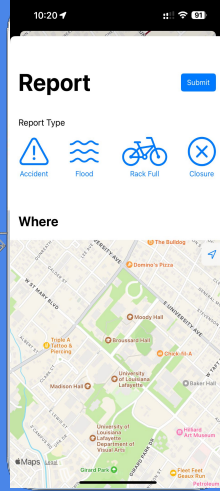
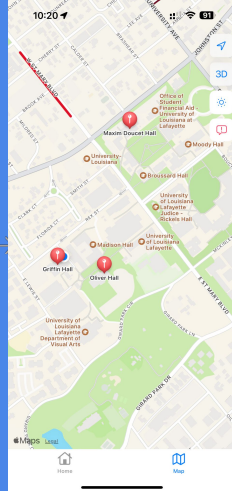
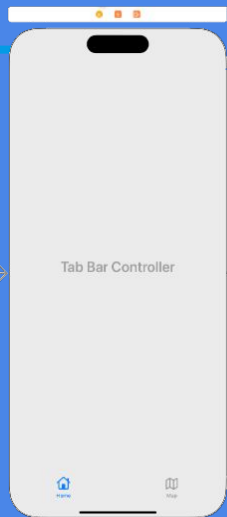
## Weather



## Reporting







# High-Flow Chart



# How well did accomplish our tasks

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## Tasks

1. Guided on the most efficient and least crowded route to closest available bike rack in the vicinity of their destination
2. To get live updates from the app about the conditions of road and sidewalk
3. To know there is a place in the bike rack available for them

## Our accomplishments

1. We provided a platform that at the very least guides them to the nearest bike rack to their destination, but unexpected traffic necessitates reporting by the user.
2. We allow users to give updates on road conditions, bike rack availability.
3. We can't guarantee them a space there as we rely on reporting for space.

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Thanks for listening to our presentation!