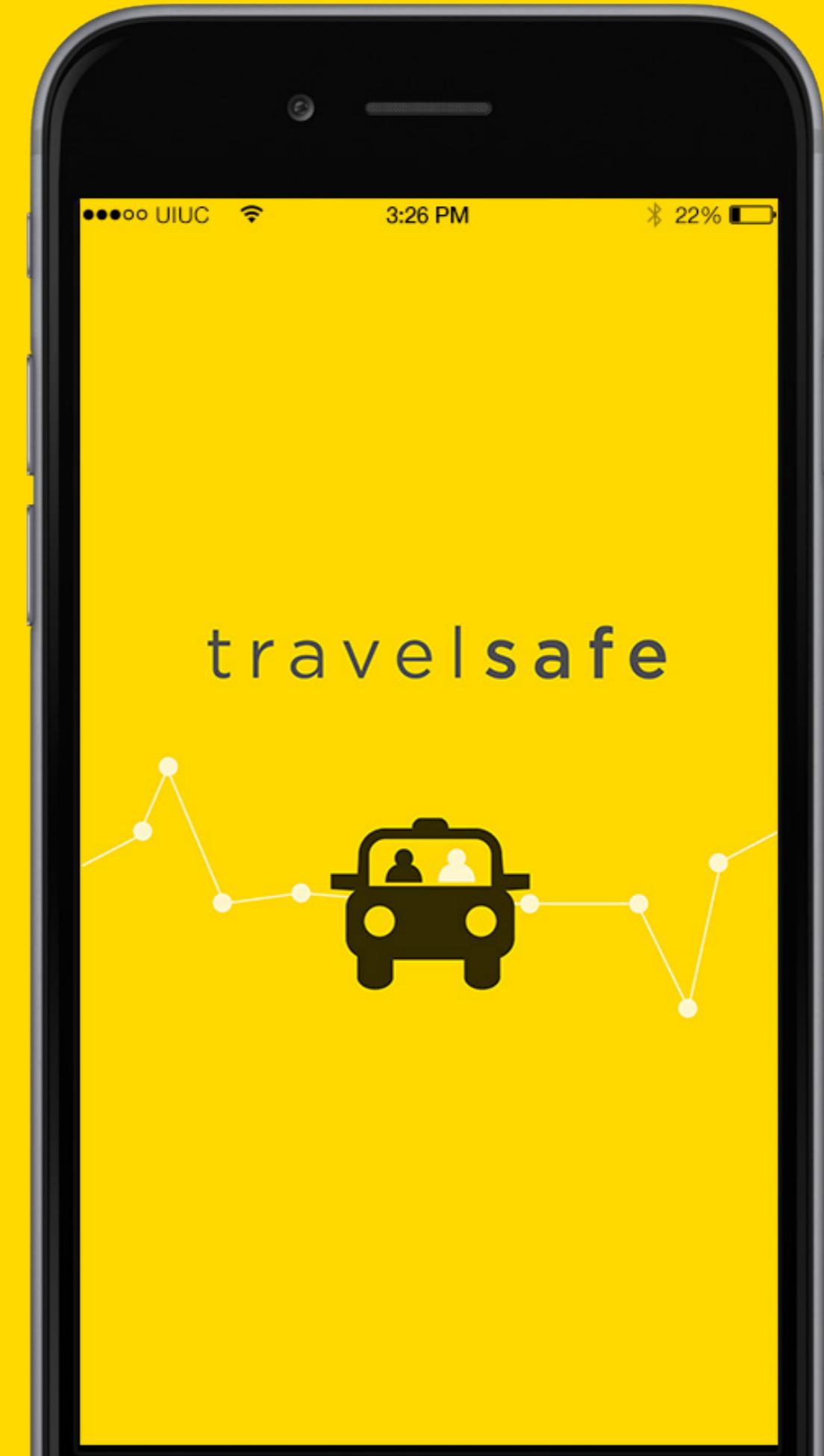


travel safe

UI/UX Design



A safer way to
get there.



PROJECT BACKGROUND

In the fall of 2013 I had the amazing opportunity to live abroad in Singapore.

While attending university, I took a class focusing on digital lifestyle design. Tasked to create a solution for an analog process, my team and I noticed how difficult it was to hail a cab outside of peak hours.

Upon return to the United States, I revisited and revamped the project.

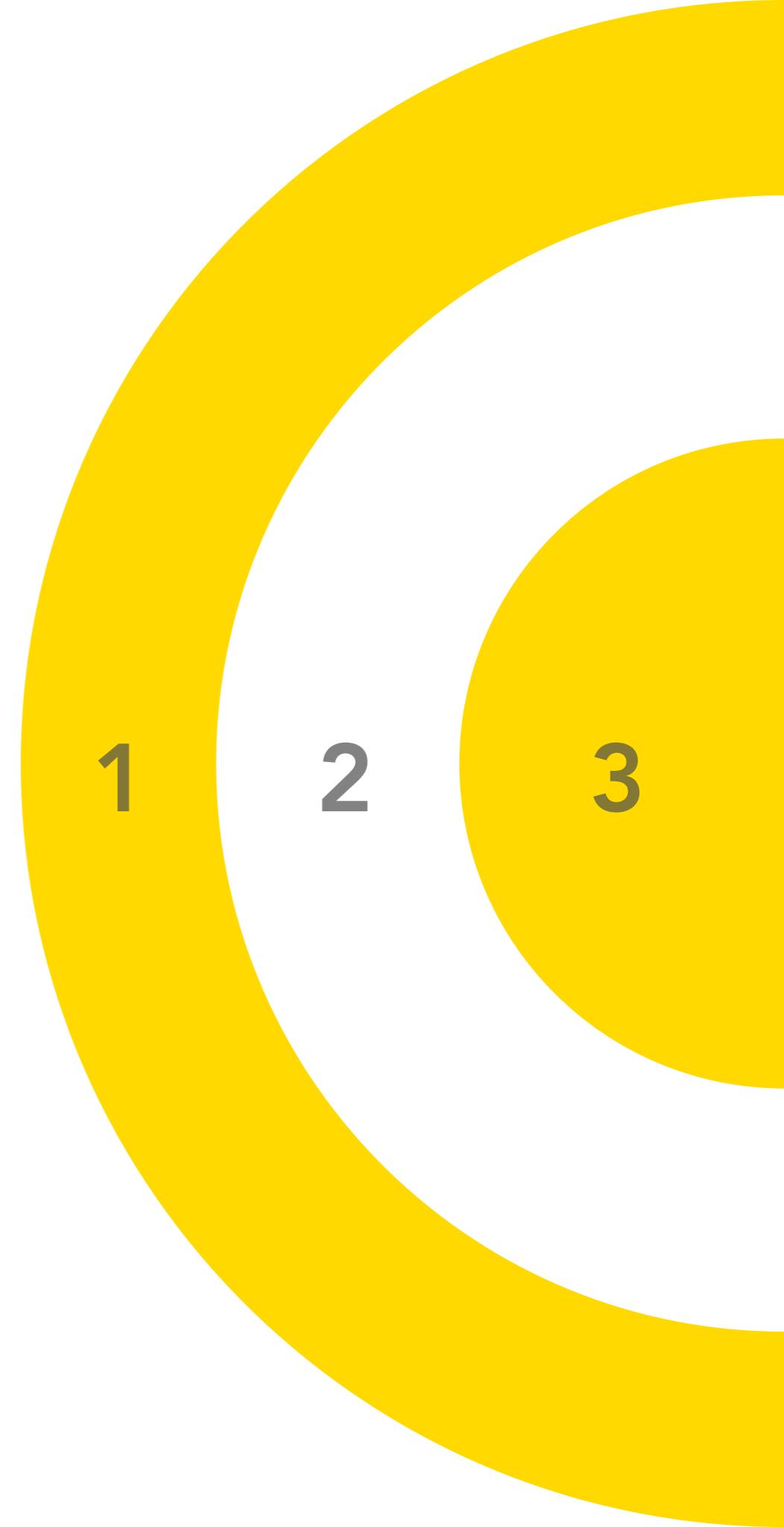
Travelsafe was created to eliminate the hassle of cab hailing as well as reward safe driving practices.

THE RESEARCH

Using a macro to micro approach we focused on three areas of research.

1. National needs
2. Societal needs
3. User needs

This method allowed us to validate and challenge our solution.



THE WHOLE COUNTRY OF SINGAPORE IS 22 MILES WIDE.





**TOTAL SINGAPORE POPULATION
5.3 MILLION**

1 million persons = 

IN AN EFFORT TO REDUCE POLLUTION CONSUMER CARS ARE TAXED 100% OF THE IMPORT COST + TITLE FEES.



Cost of Ownership United States

Car	= \$22,325.00
Tax	= \$1562.75
Title	= \$175.00
Insurance	= \$600.00

Total	\$24,662.75
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Cost of Ownership Singapore

Car	= \$40,256
Tax	= \$496
Title	= \$52,000
Insurance	= \$800

Total	\$93,552.00
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A CAR = STATUS

A MAJORITY OF THE POPULATION RELIES ON
ALTERNATIVE METHODS OF TRANSPORTATION.



**IN 2014 THERE WERE 974,170 VEHICLES
35% OF WHICH WERE TAXI CABS.¹**

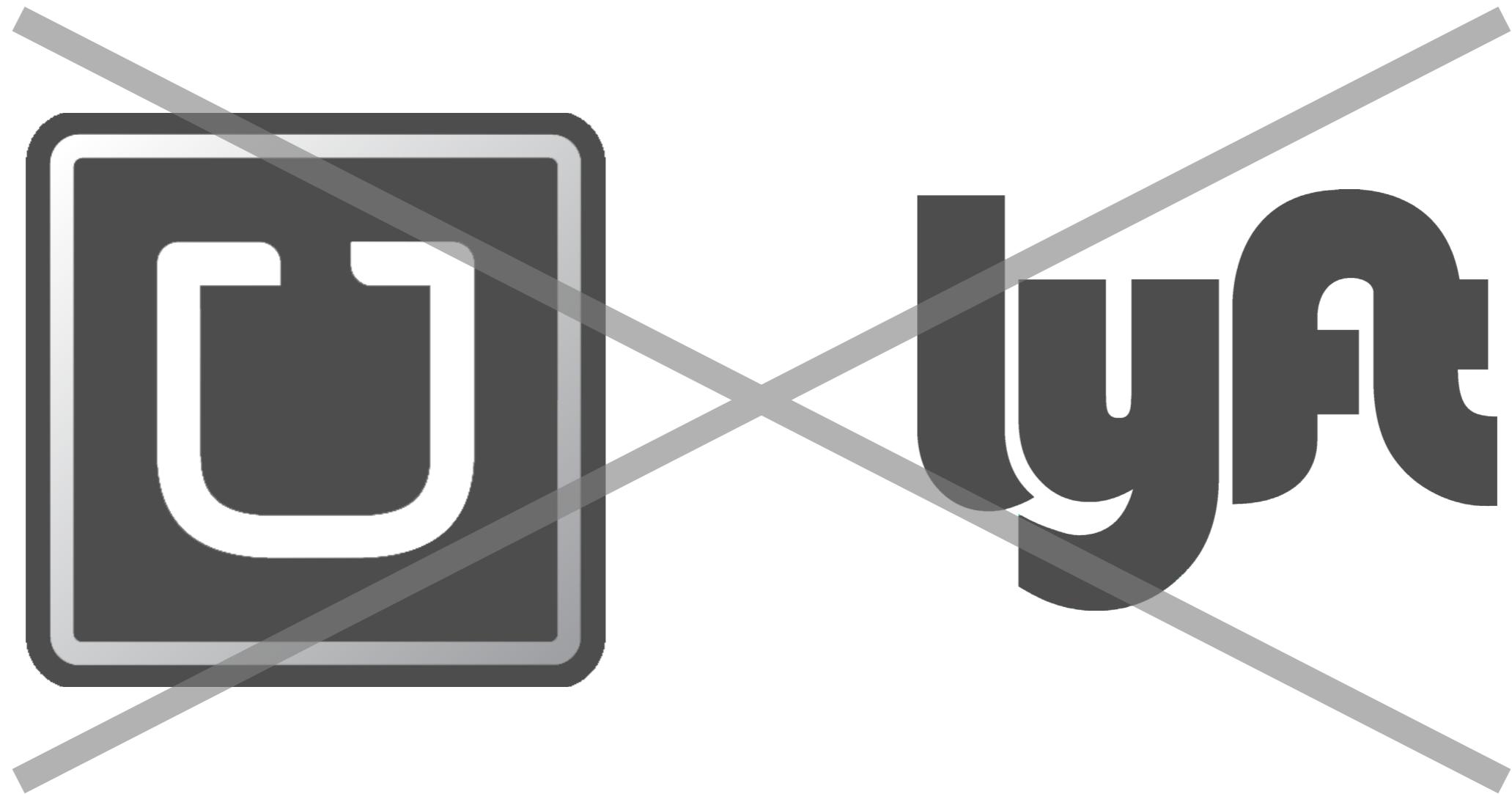


1.5 MILLION CAB RIDES
OCCUR ANNUALLY WITH THE
AVERAGE RIDE BEING 6 MILES.



A photograph showing a white van and a red taxi involved in a collision on a city street. The van's front end is crumpled, and the taxi has a significant dent on its side. Several police officers and a traffic warden are at the scene, examining the vehicles and the area around them. A traffic cone is visible on the ground near the taxi.

**TAXIS ACCOUNT FOR 14% OF THE
TOTAL VEHICULAR ACCIDENTS.**



**UNTIL VERY RECENTLY, STRICT LAW
PROHIBITED RIDE SHARING.**

**WE SENT OUT SURVEYS AND
INTERVIEWED REAL PEOPLE TO
UNDERSTAND OUR USER NEEDS.**



Professionals



Students



Tourists



Elderly

PROFESSIONAL NEEDS & KEY INSIGHTS

"I need a cab at the same time everyday to and from work. It's crazy that I have to search every morning."

"In the morning the cabbie phone lines cannot handle the volume of calls. It normally takes 2-3 tries to get an operator."

1. Quick
2. Consistent
3. Time conscious



STUDENT NEEDS & KEY INSIGHTS

"I stay late on campus. If I'm alone, waiting outside for a cab makes me feel unsafe."

"I never carry money. When I split a cab with friends it's so hard to break up the total and you always end up paying too much or owing money."

1. Safety
2. Accessible
3. Convenient payments



TOURISTS NEEDS & KEY INSIGHTS

“When I first came to Singapore I had no idea where to find a cab or how to even hail one!”

“With some drivers there is a communication barrier. I was new to the city and did not know how to tell him where to go.”

1. Ease of use
2. Confidence in driver
3. Convenient payments



ELDERLY NEEDS & KEY INSIGHTS

"I go to church early, it's hard on my body to walk around looking for cabs."

"I have trouble with my hands, I'd like something that was simple and quick."

1. Simplicity
2. Intuitive



**WITH TANGIBLE USER NEEDS AND
RESEARCH IN HAND WE NARROWED
DOWN OUR PROBLEM.**

**HOW CAN WE DESIGN A PRODUCT
THAT ALLOWS USERS TO QUICKLY
FEEL SAFE AND EFFICIENT WHEN
HAILING A CAB?**

IDEAS

We threw a big net when it came to idea generation.

We found friction in what made our product better especially when competitors had already been trying to poach the market.

What added value would make us stand out?

Mobile Soin

Swipe To
Unmute

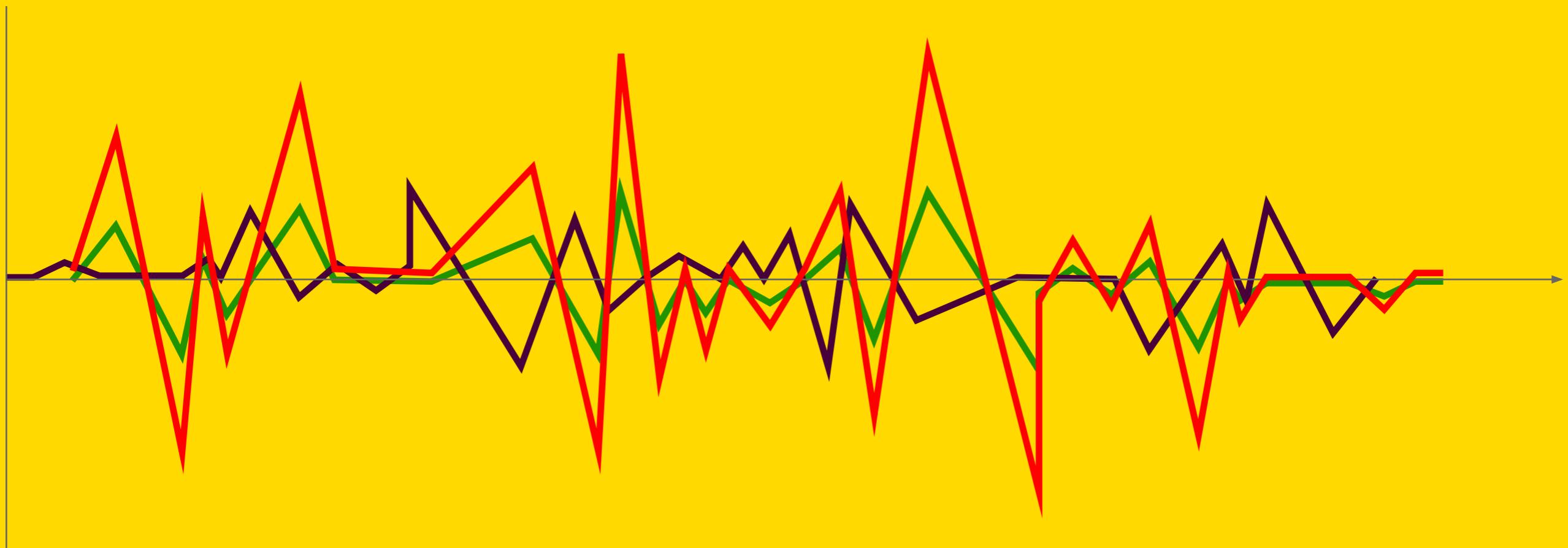
THE SHINING LIGHT

At the university we were fortunate enough to team up with NUS CUTE Center which is the leader for collaborate research in interactive digital media. There we were introduced to Sensorendipity.



SENSORENDIPIITY

They needed a real world application, we needed added value.



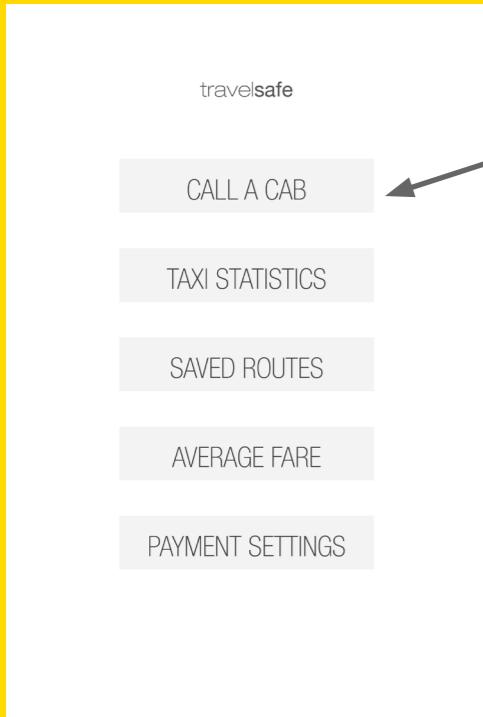
Sensorendipity is a framework that enables mobile phone sensors to be accessible over the web in real-time, simply and easily.

WE STARTED SIMPLE WITH LOW FIDELITY MOCK UPS TO TEST WITH USERS.

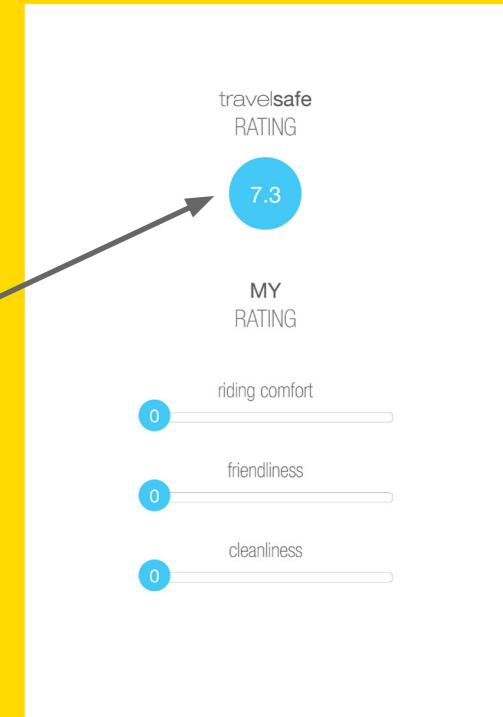
The image displays four wireframe mockups for a mobile application named "travelsafe".

- Mockup 1 (Left):** A yellow square icon containing a black silhouette of a car.
- Mockup 2 (Second from Left):** A menu screen with the "travelsafe" logo at the top. It includes five buttons: "CALL A CAB", "TAXI STATISTICS", "SAVED ROUTES", "AVERAGE FARE", and "PAYMENT SETTINGS".
- Mockup 3 (Second from Right):** A confirmation screen for a taxi booking. It shows a green header bar with "CONFIRMED", followed by "TAXI A", "ARRIVING IN 4 mins", "PLATE NUMBER : SBS 1992", and "LOCATION : NUS". At the bottom is a blue button labeled "START travelsafe".
- Mockup 4 (Right):** A rating screen with the "travelsafe" logo and "RATING" text. It features a large blue circle with the number "7.3". Below it, under the heading "MY RATING", are three sliders for "riding comfort", "friendliness", and "cleanliness", each with a value of "0".

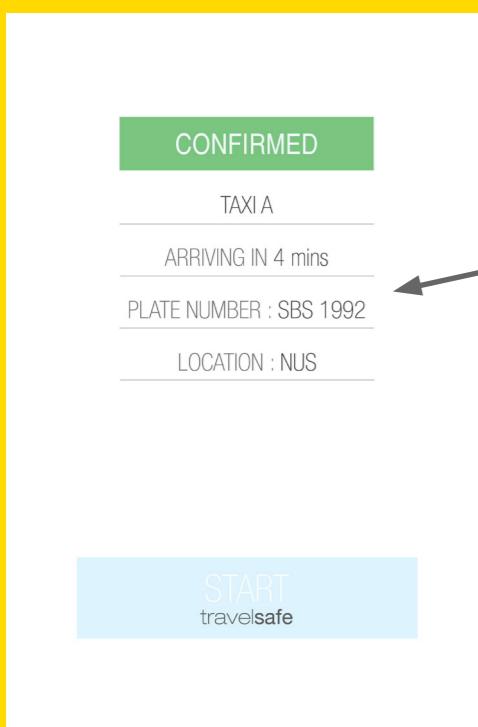
USER TESTING THE PROTOTYPE GAVE HONEST FEEDBACK.



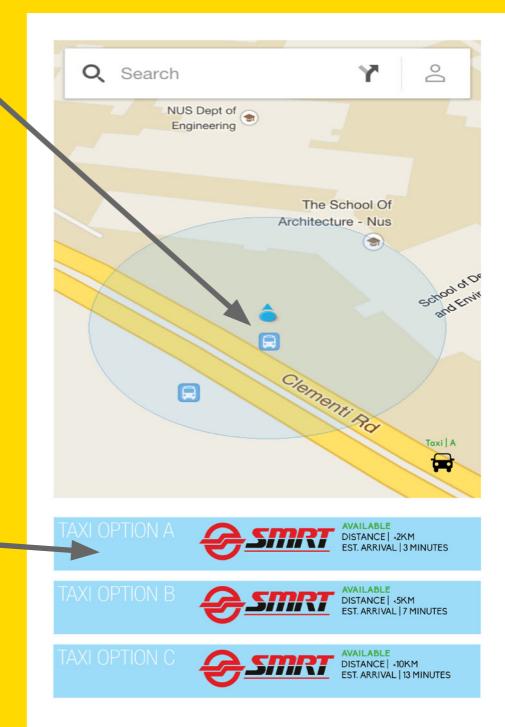
“Can I not preorder or arrange for a pick up?”



“What is this rating from?”
“What if I forget to rate?”



“How far away is my driver?”
“I want to know how much time I have.”



“I don’t like this taxi brand.”

READRESSED AND REDESIGNED THE ONBOARDING WIREFRAME.

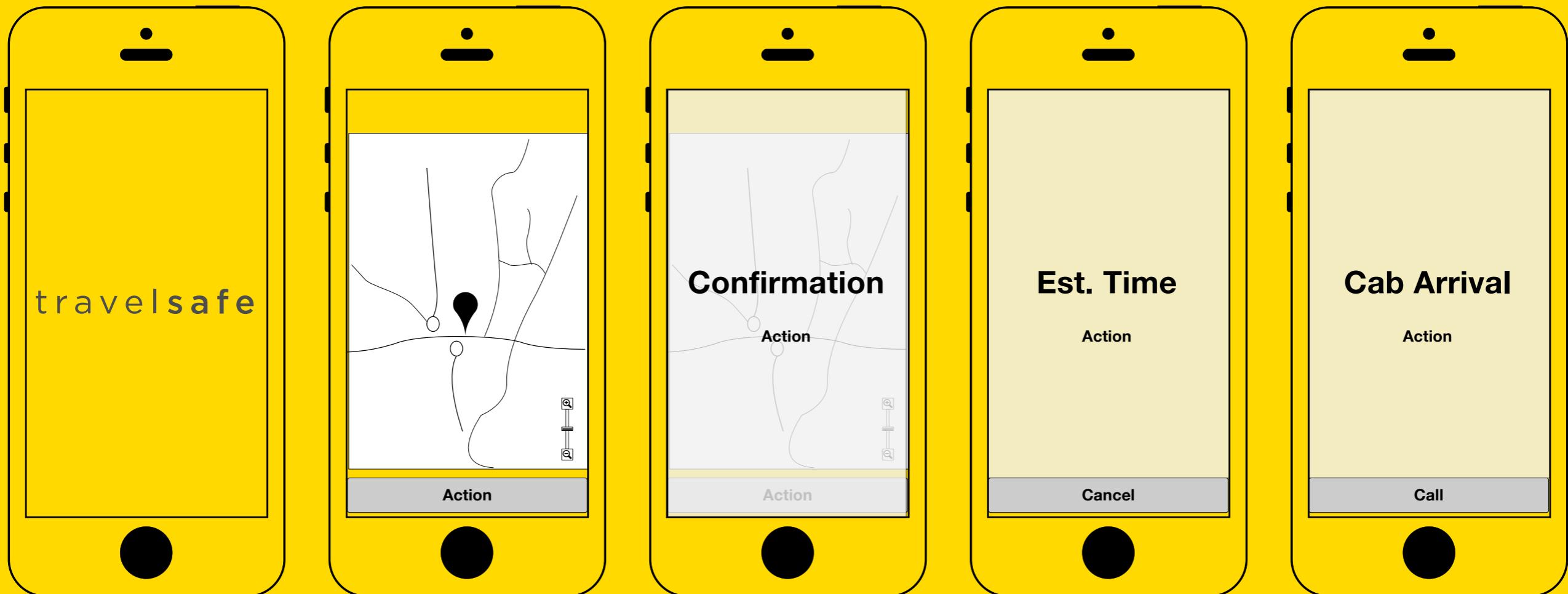


PICK-UP USER FLOW

DROP-OFF USER FLOW

LOW FIDELITY MOCK UPS

Pick-Up Wireframe



Loading
Page

Home
Screen

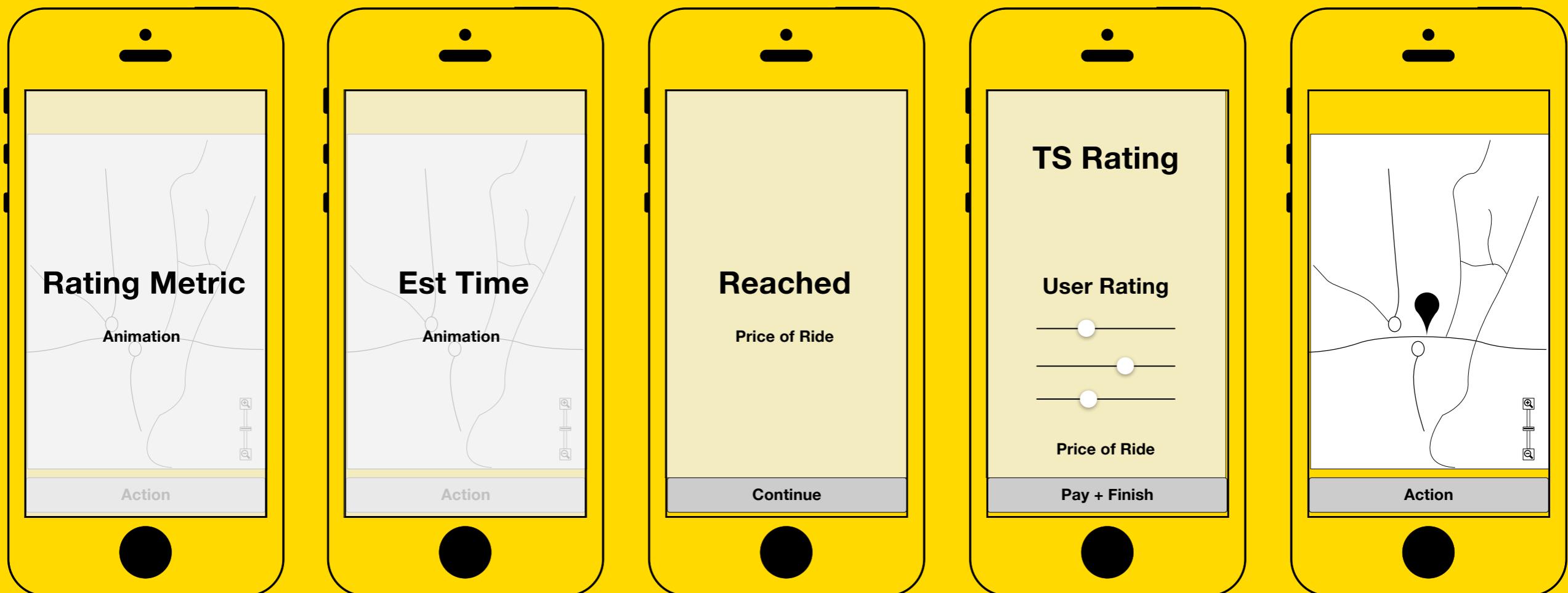
Confirmation
of Location

Est. Time of
Cab Arrival

Cab
Arrival

LOW FIDELITY MOCK UPS

Drop-Off Wireframe



Sensor
Tracking

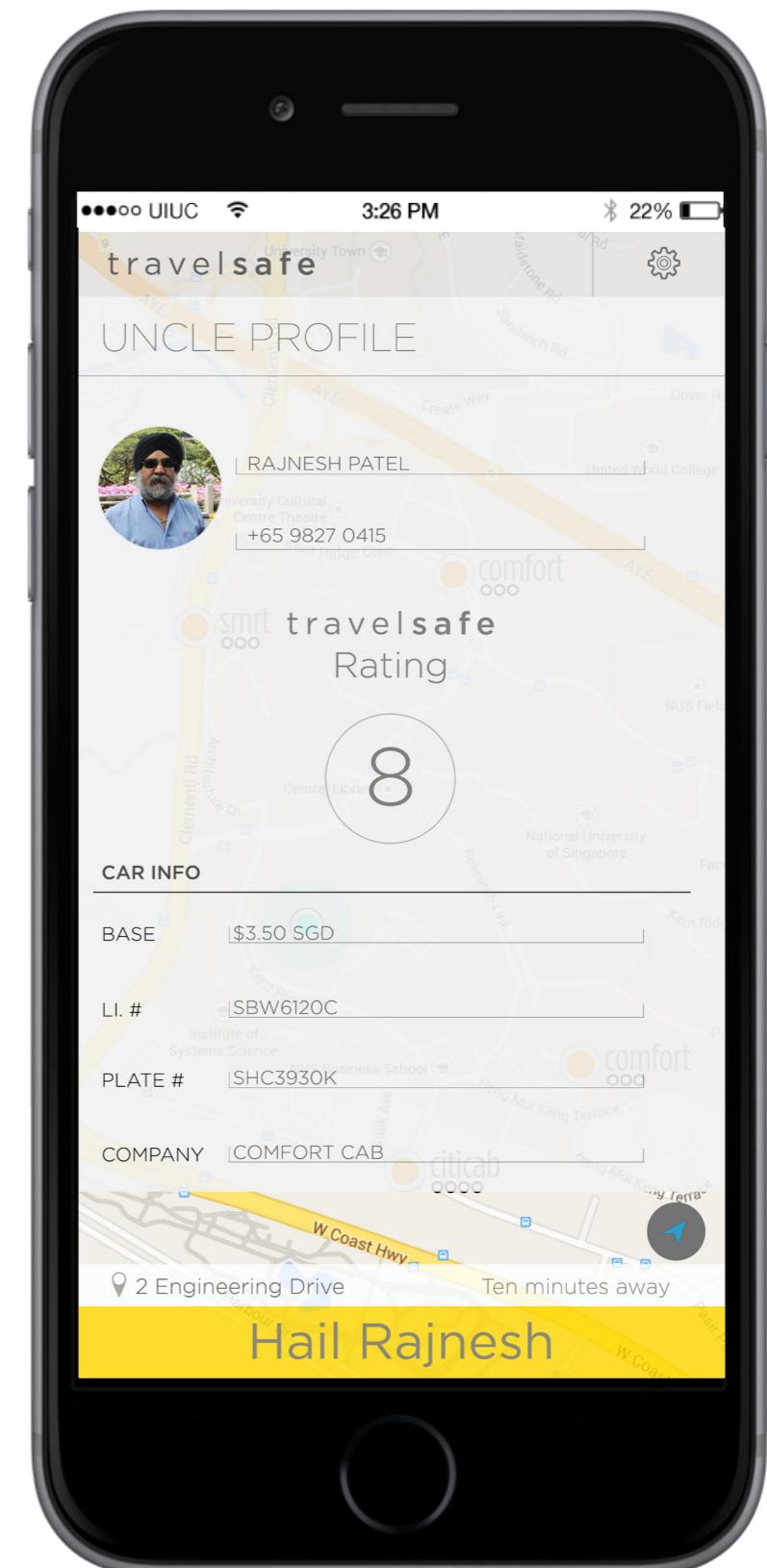
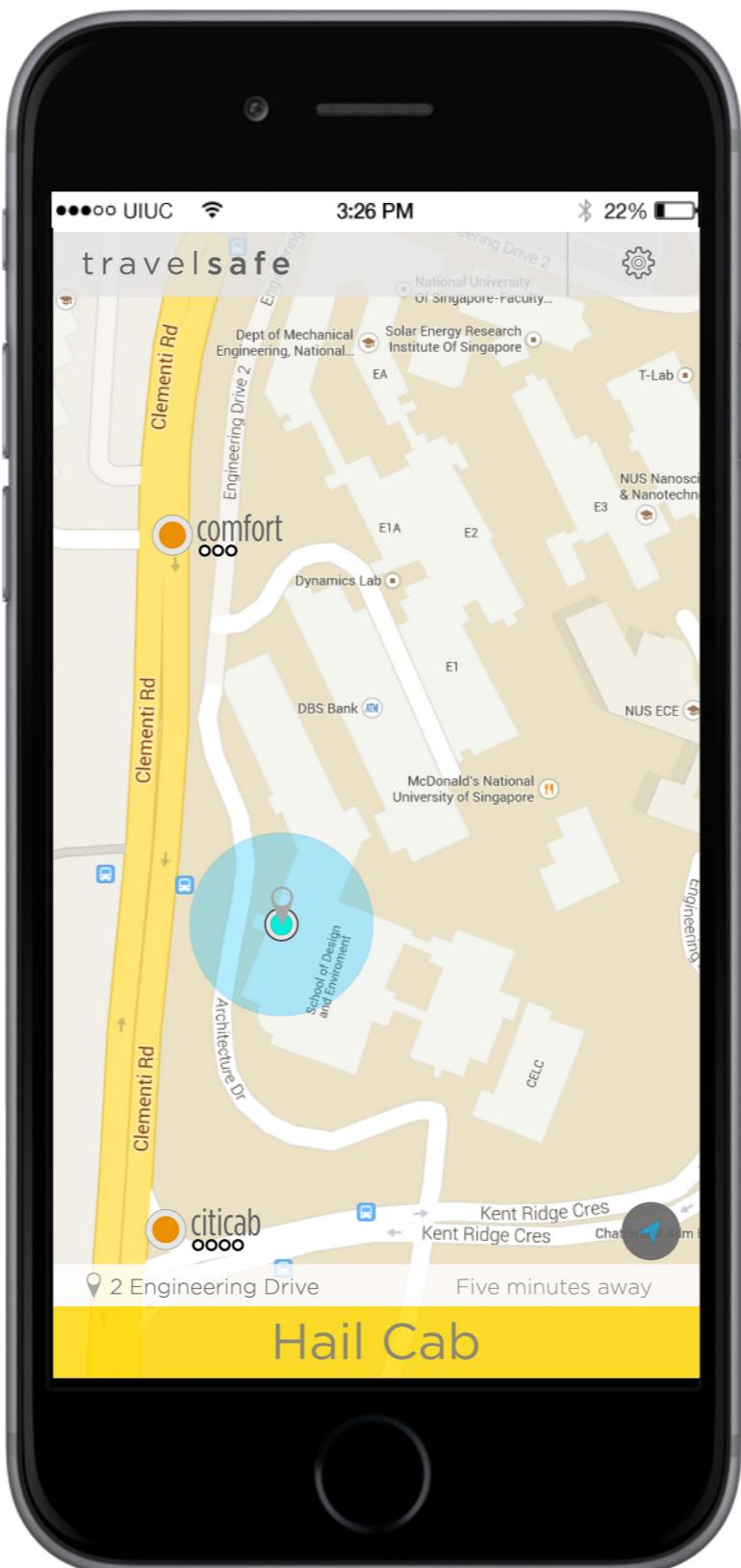
Est. Time Till
Destination

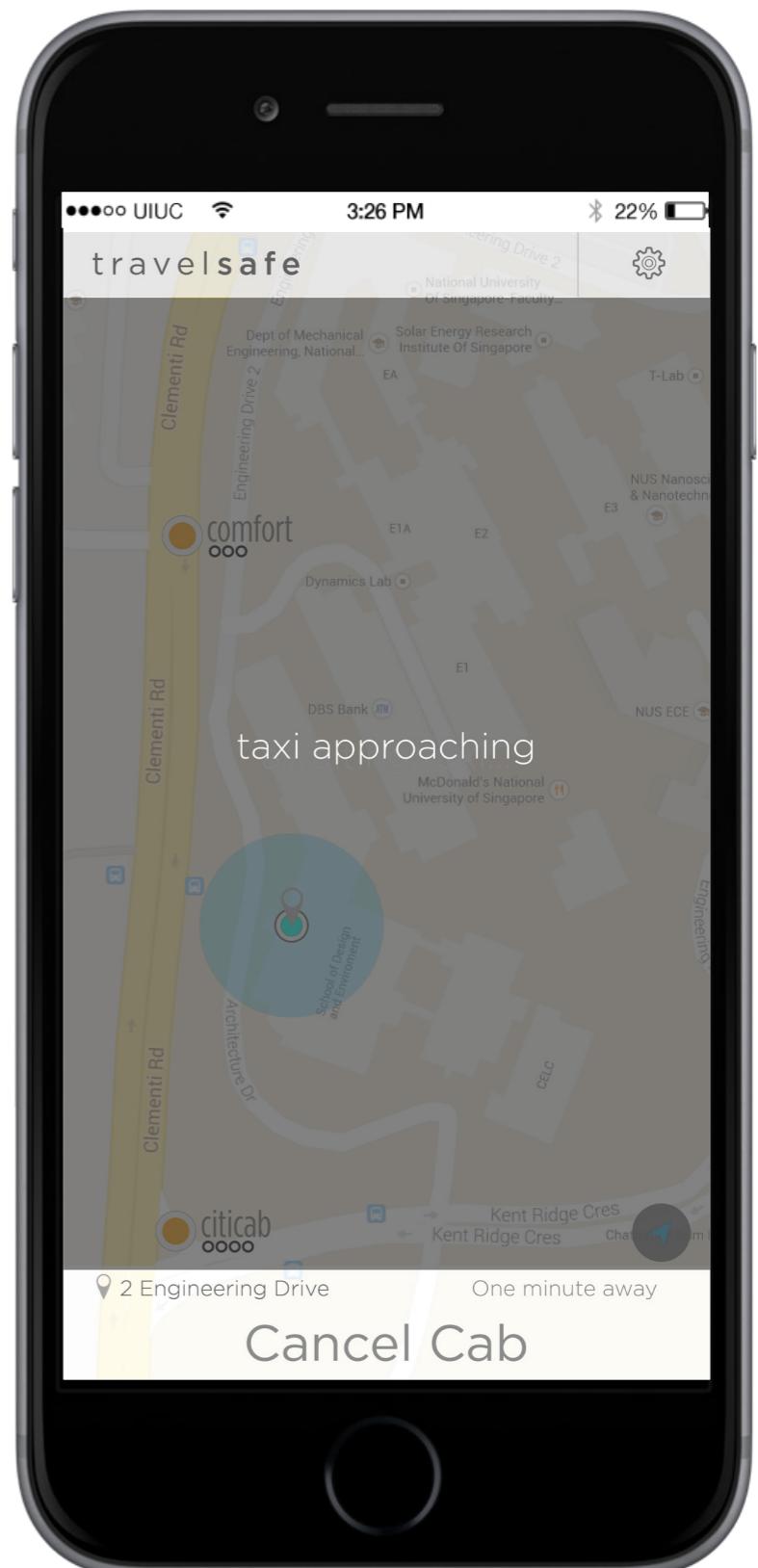
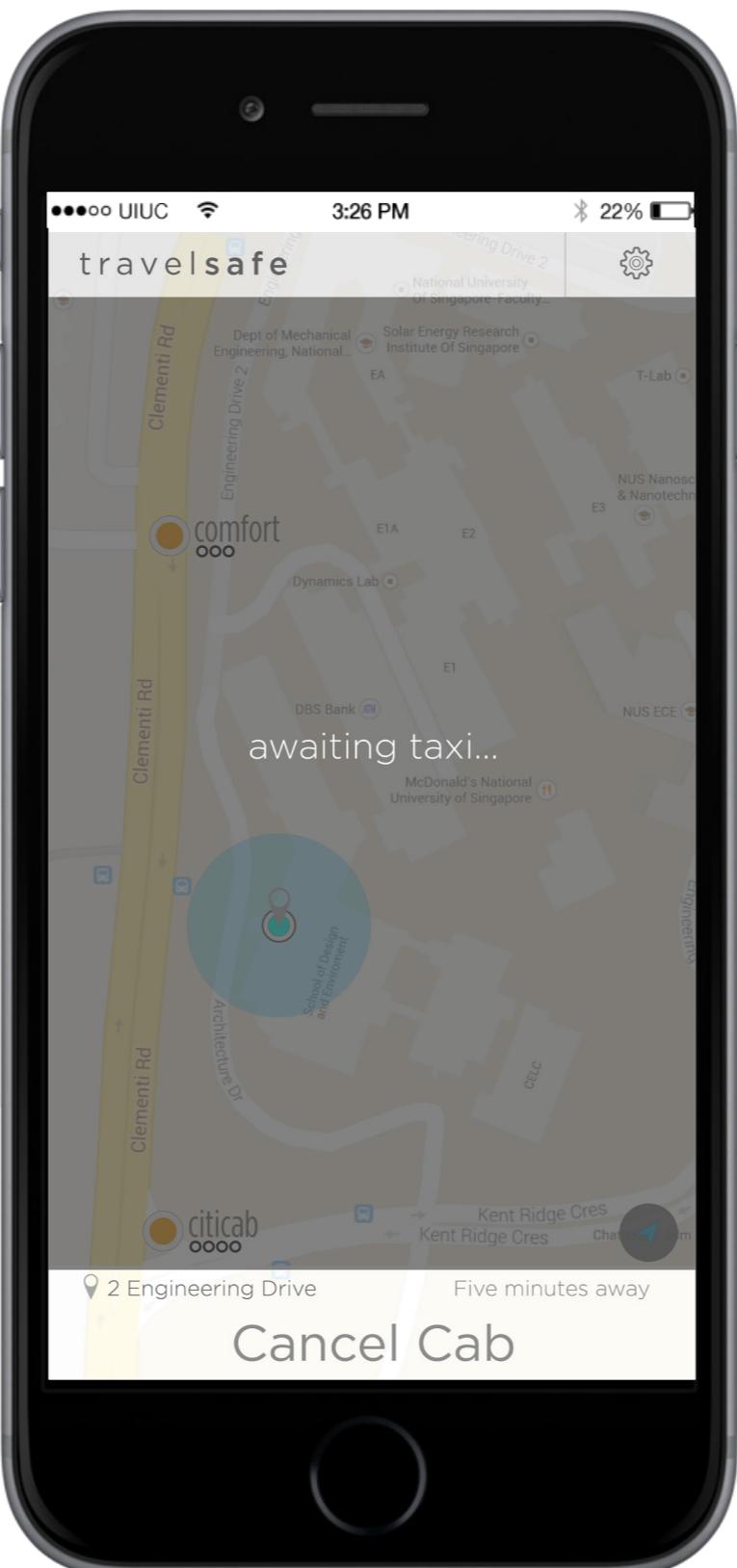
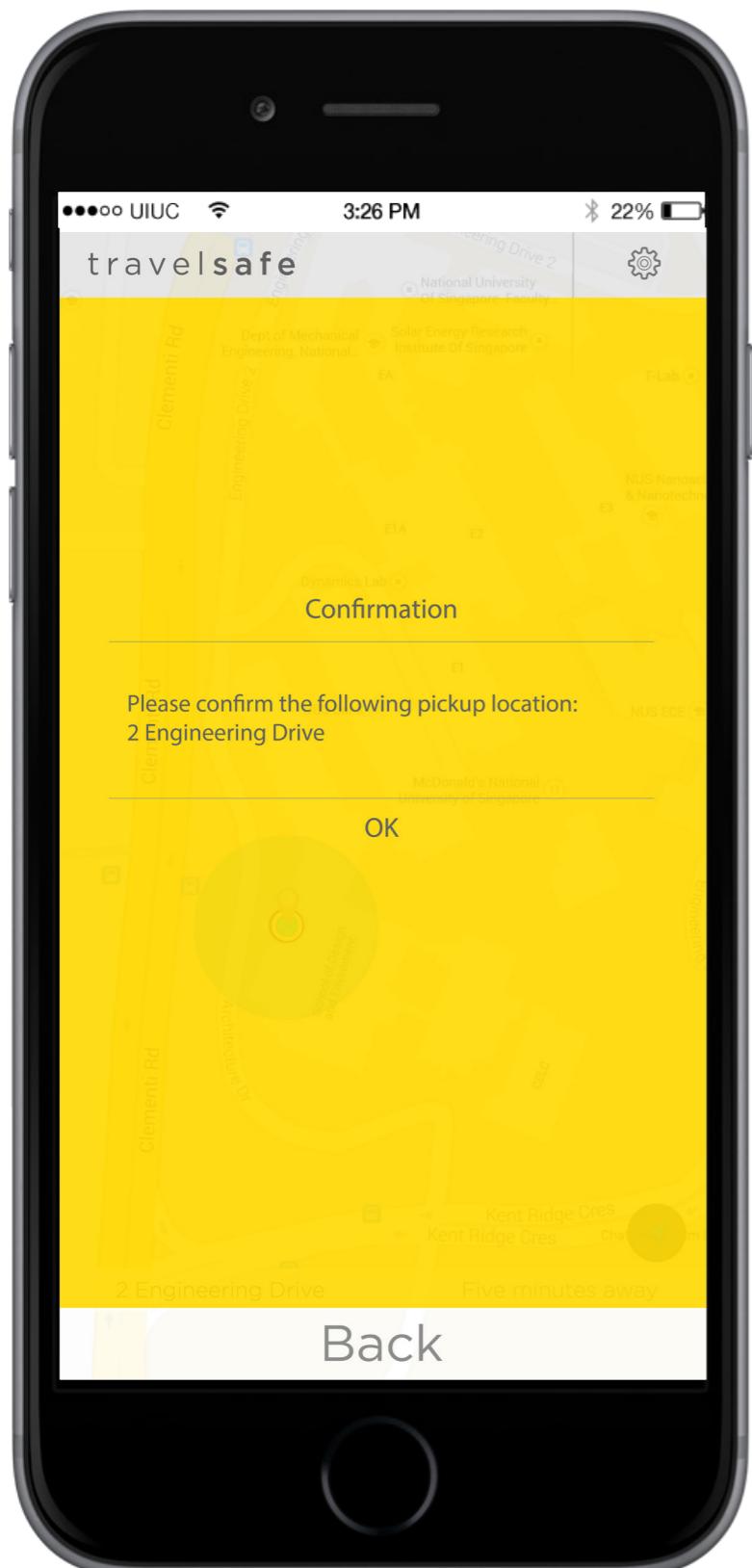
Location
Reached

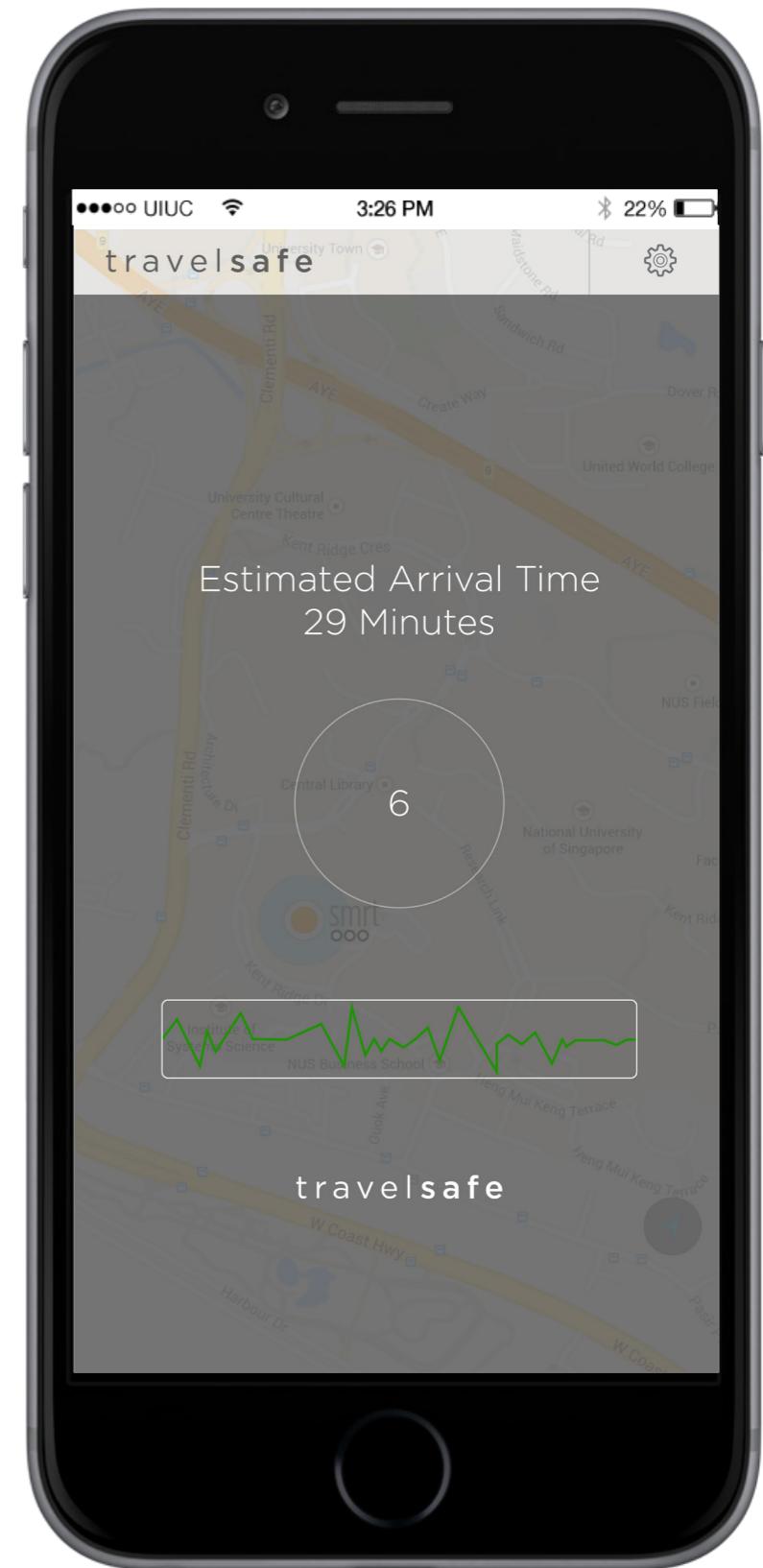
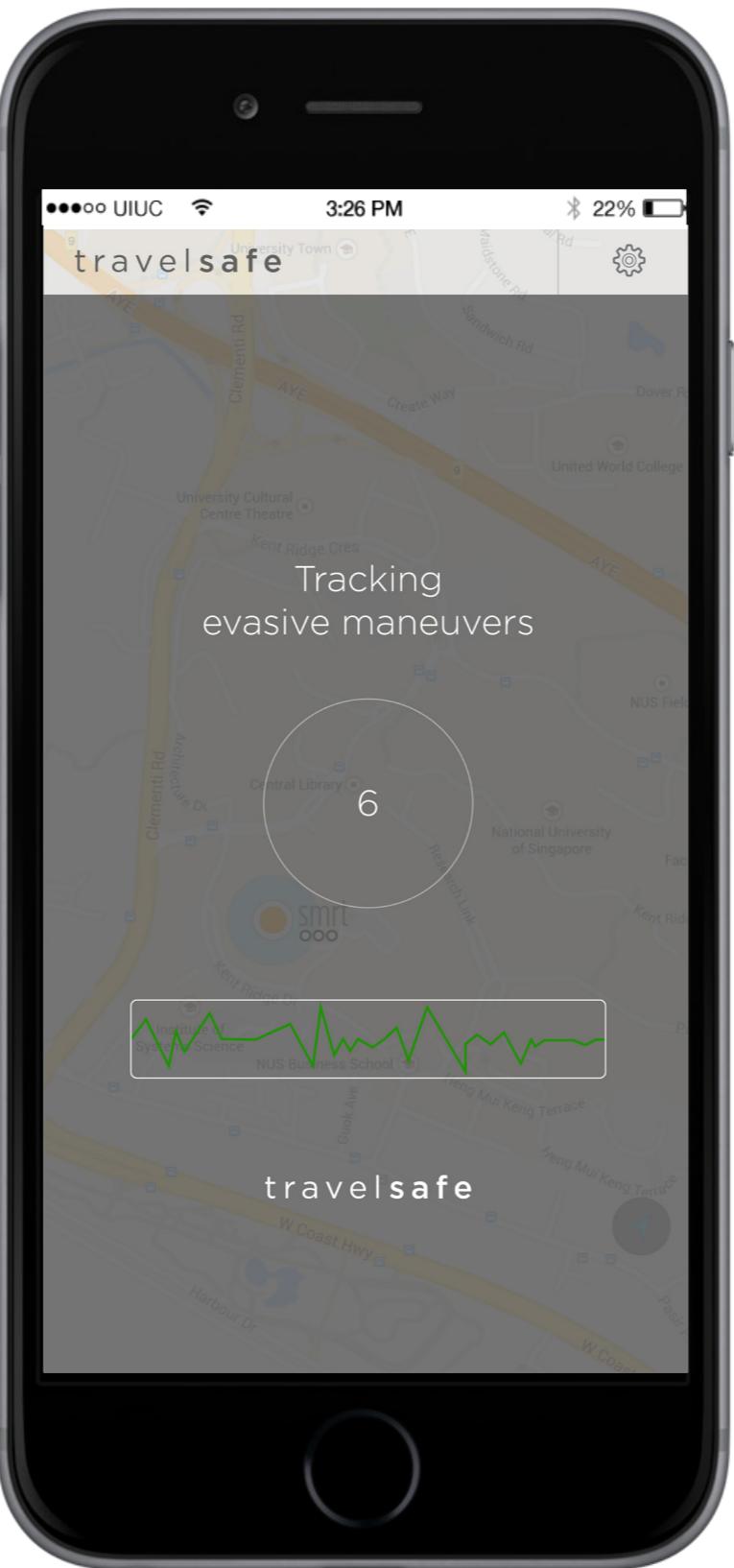
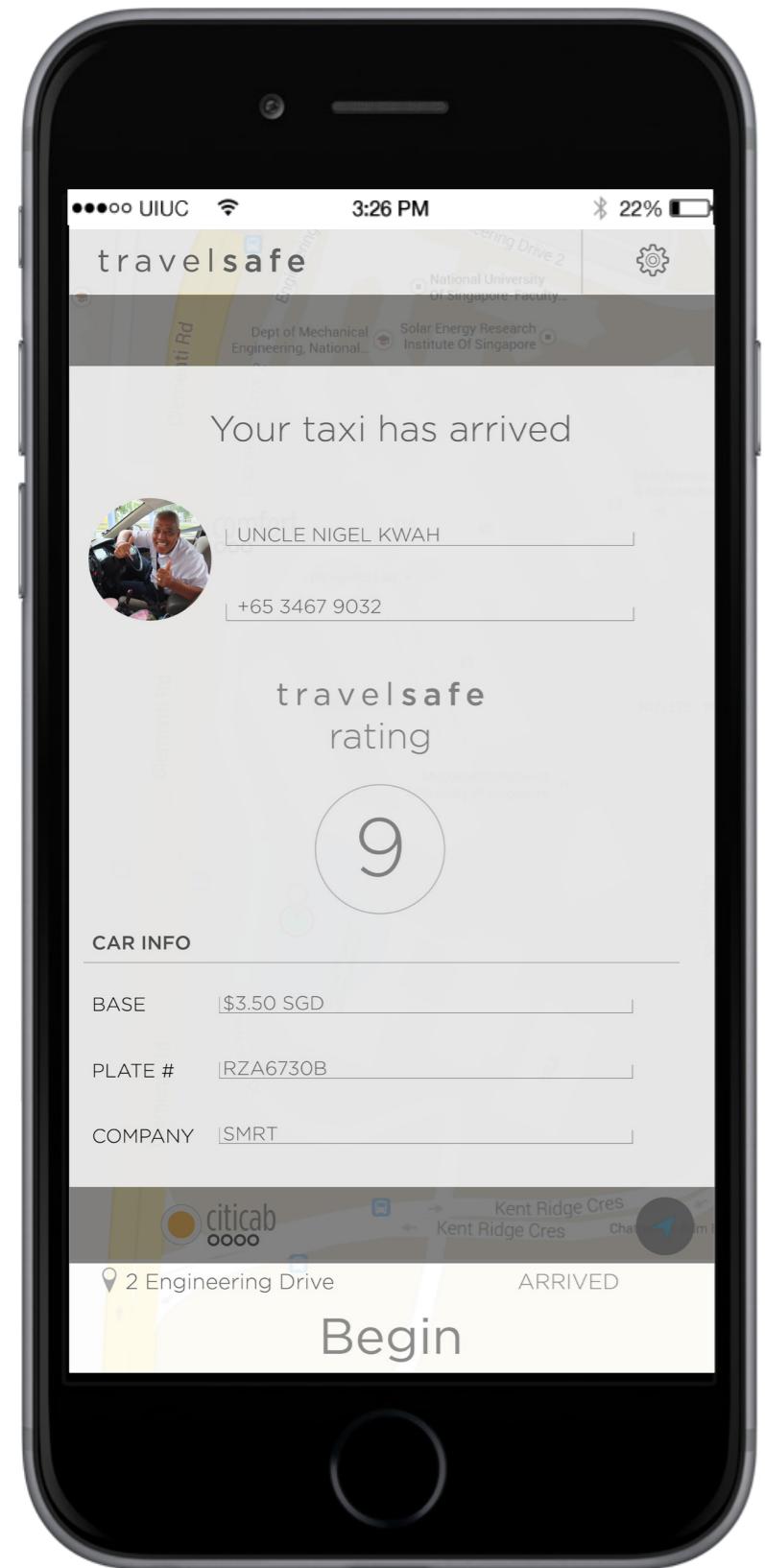
User Query for
Rating + Payment

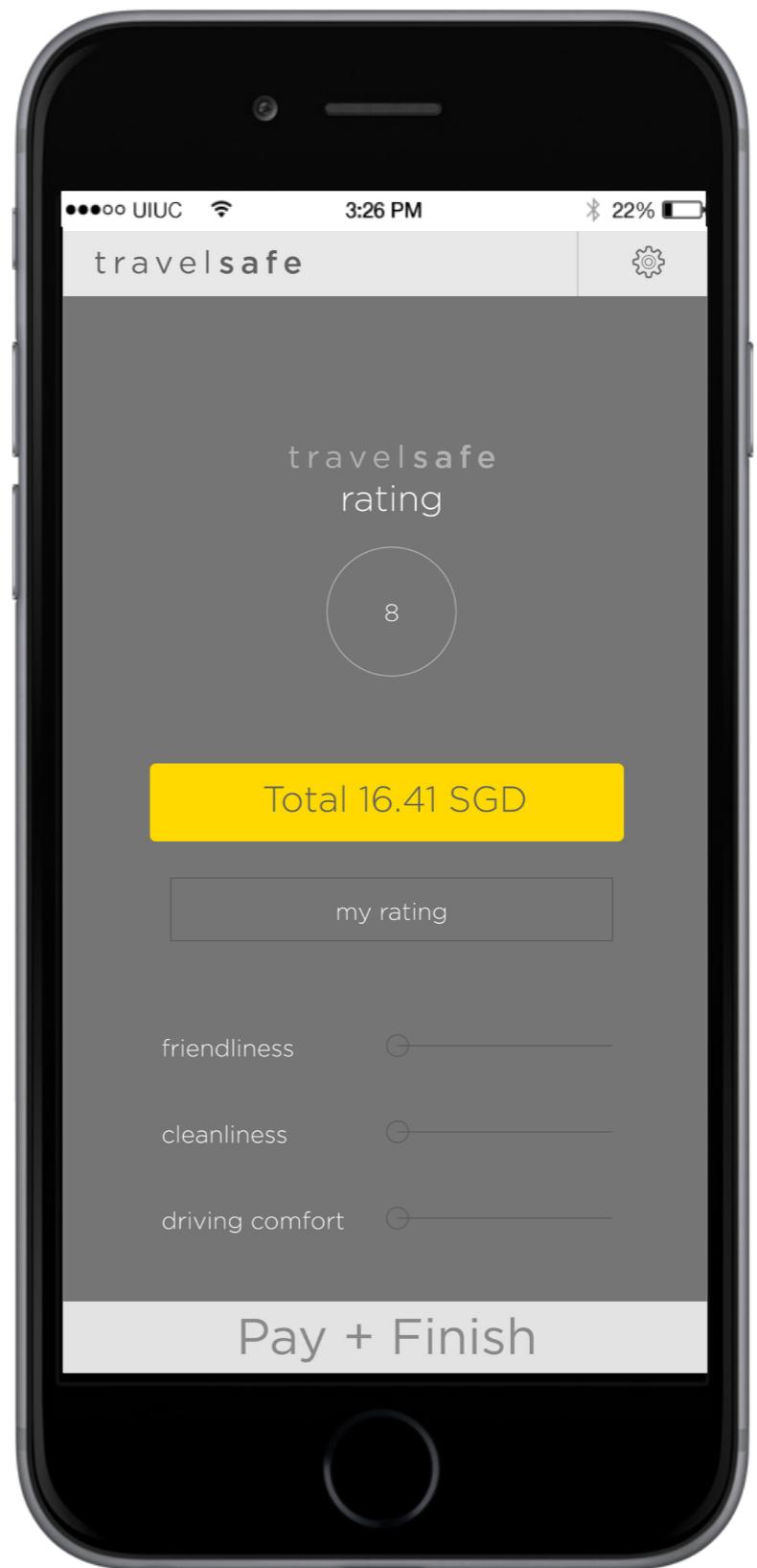
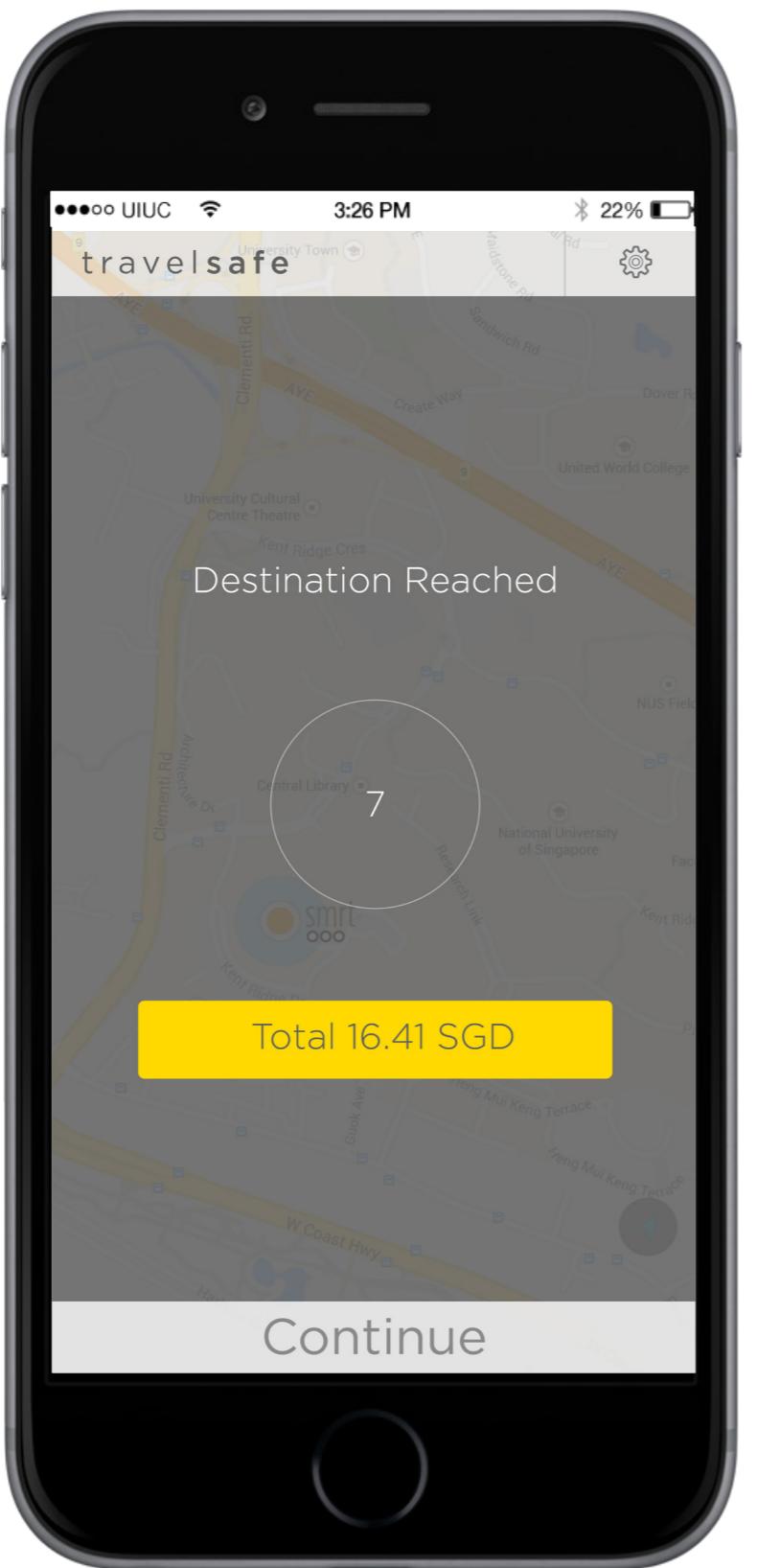
Return to
Home Screen

HIGH FIDELITY PROTOTYPES







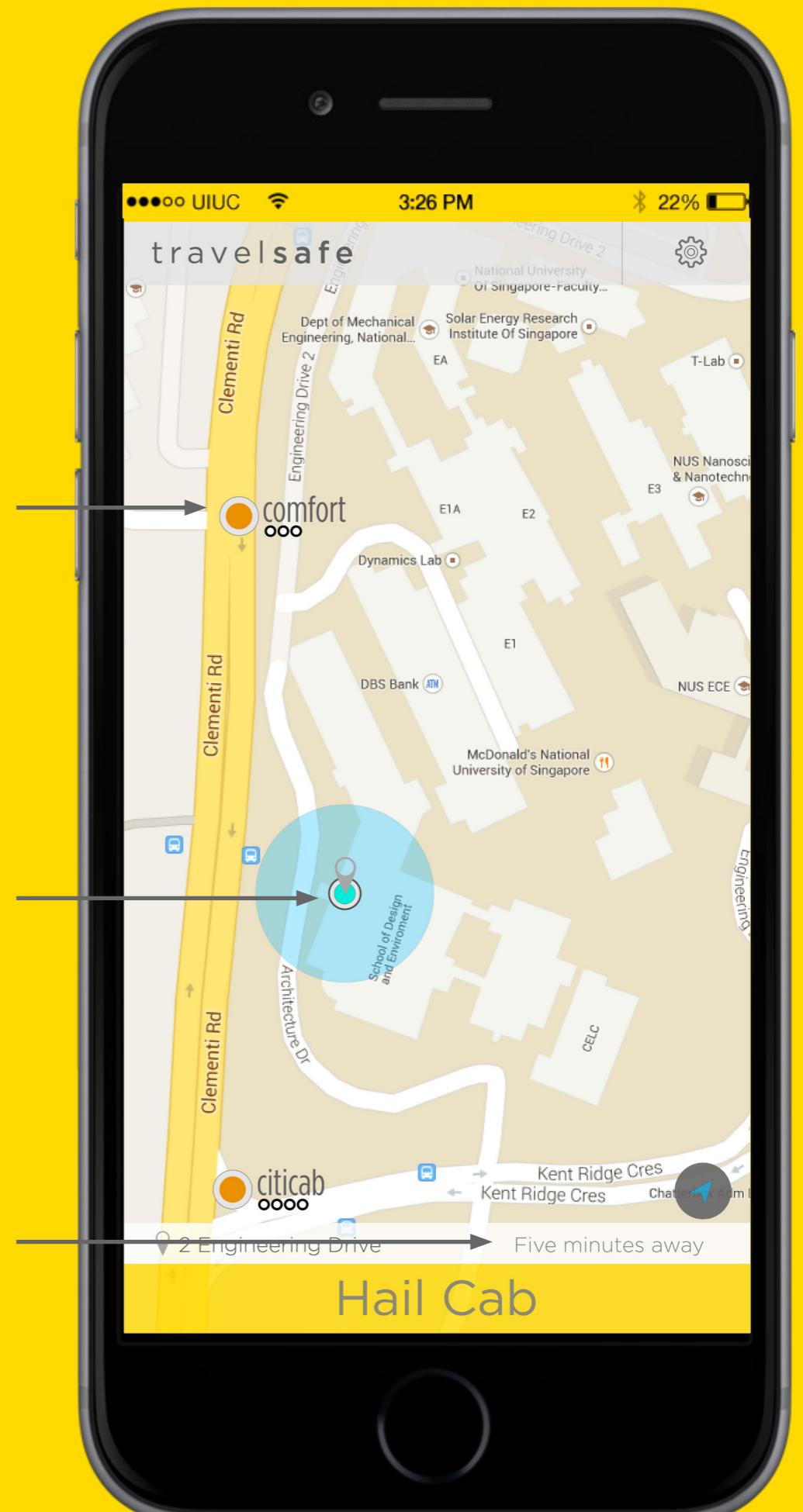


KEY DETAILS

Features different brands for competitive pricing.

Shows current location with the ability to adjust placement.

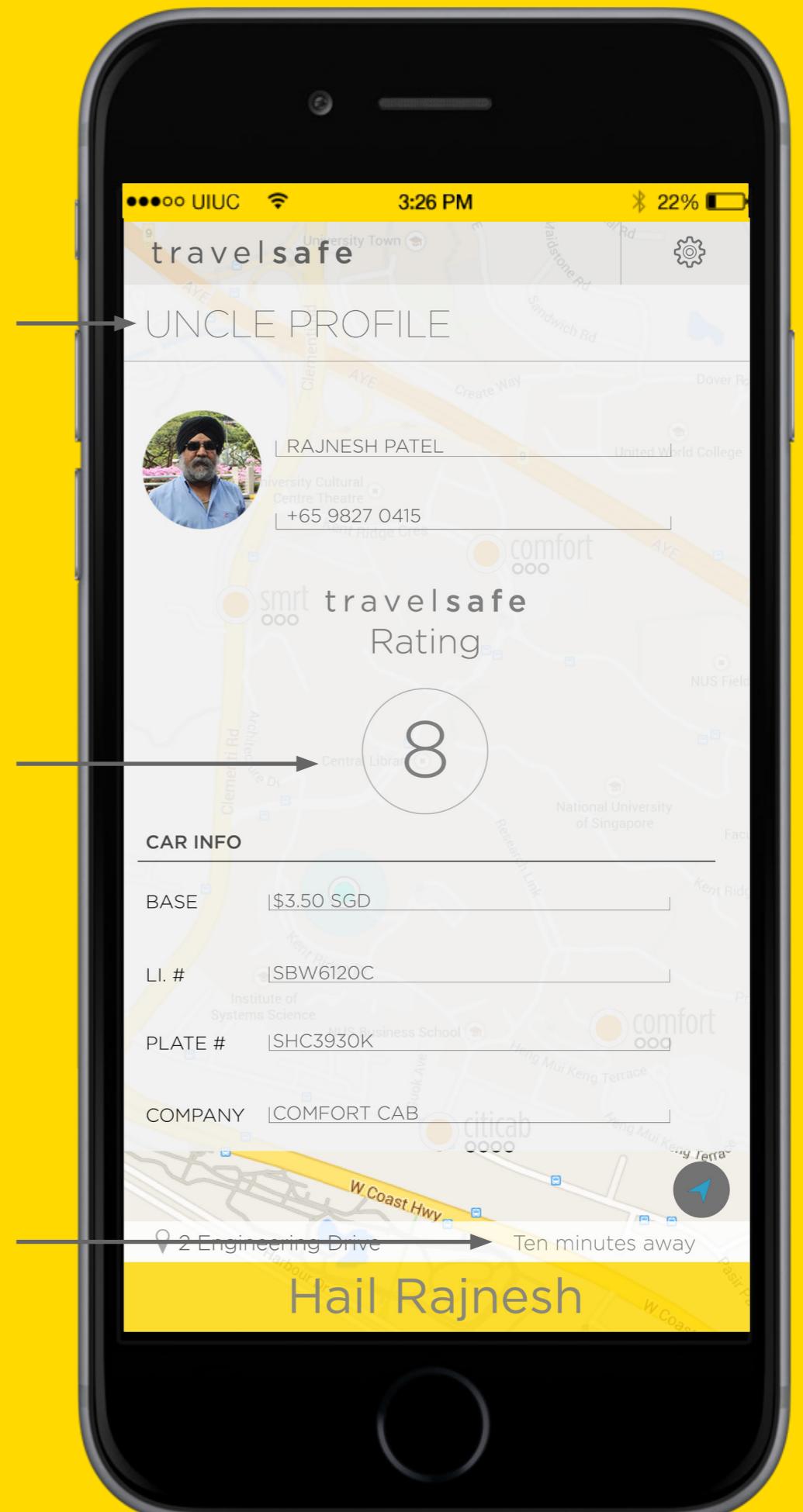
Shows estimated time of the closest cab.



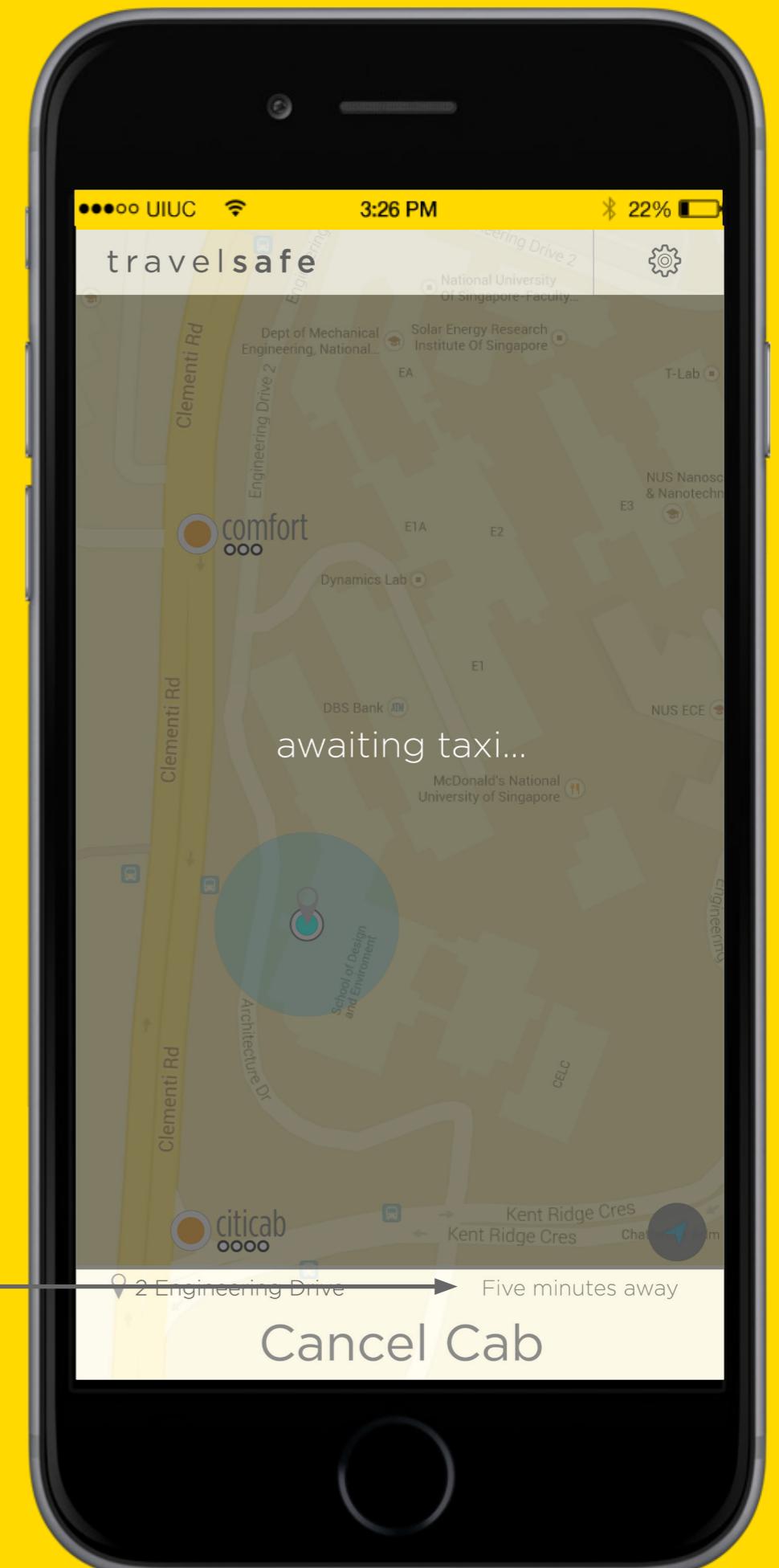
Users have the ability to pick specific drivers or “Uncles”.

The Travelsafe rating is created using sensor data + user reviews.

Shows estimated arrival time of the selected Uncle.



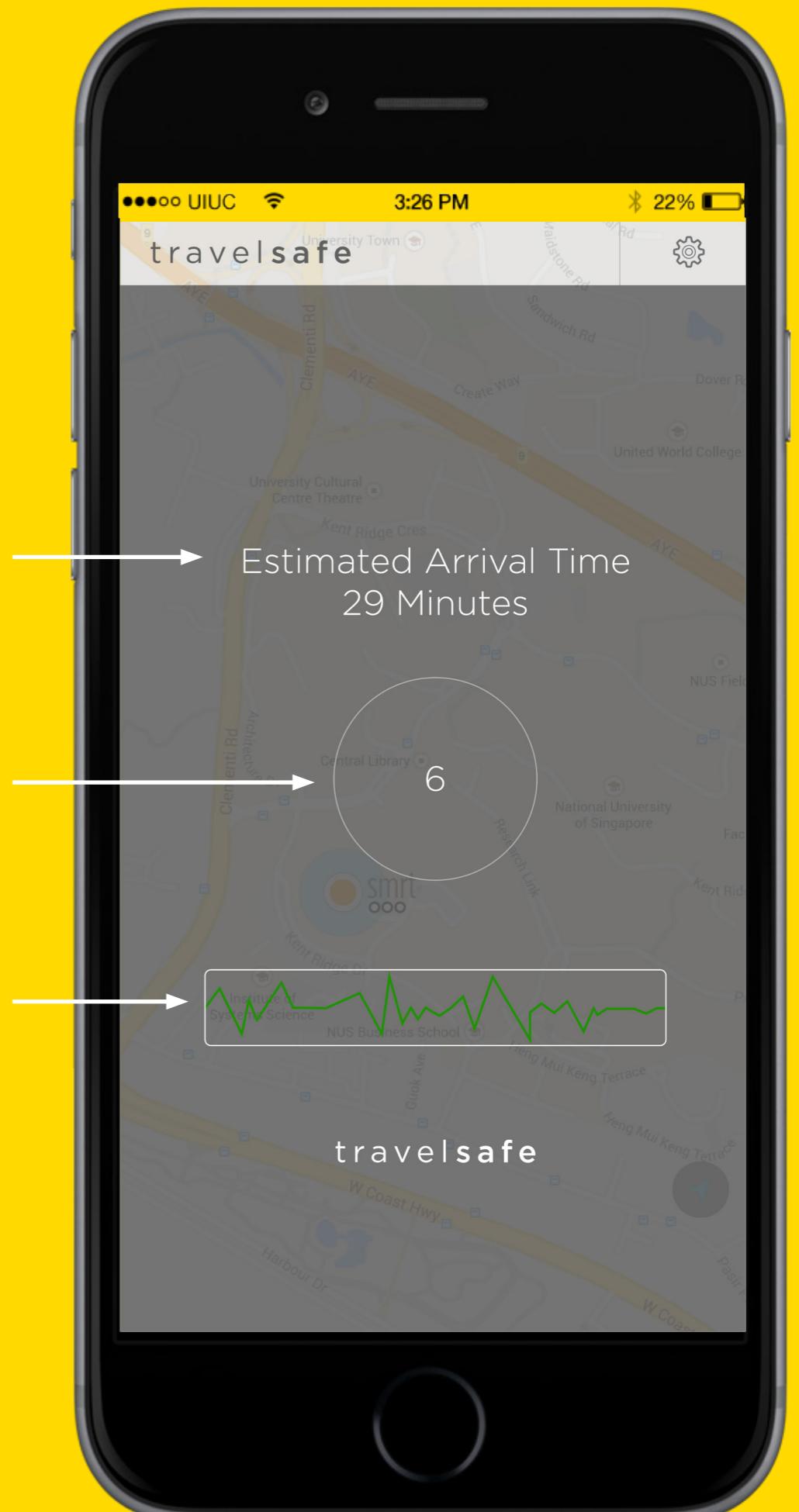
Shows the estimated time of the taxi arrival giving the user freedom from waiting.

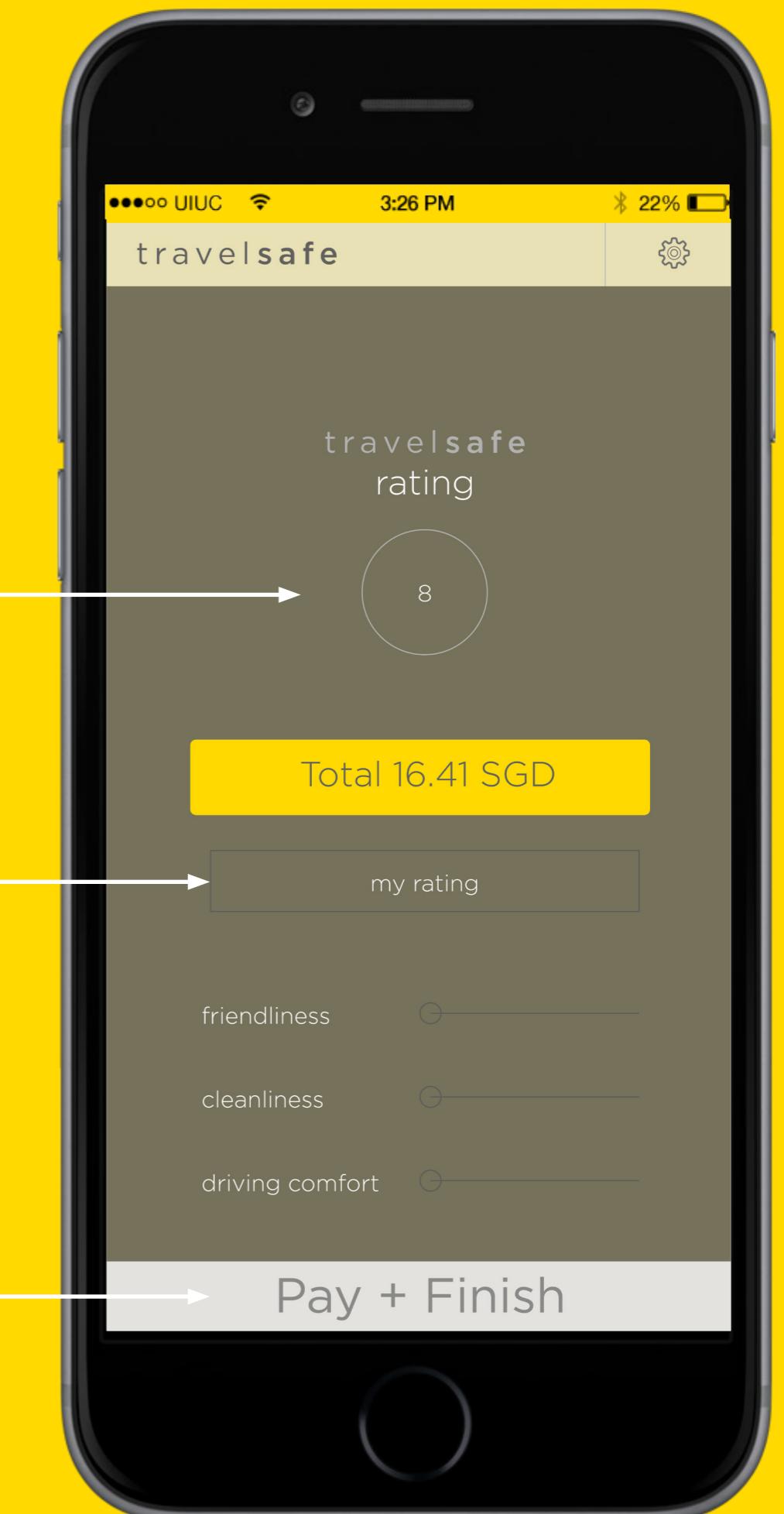


Final destination arrival times allow for the user to plan ahead.

Travelsafe rating adjusts with every evasive driving maneuver.

Real time visualization of sensor readings to give users insight.





Shows users final sensor rating.

Allows users to give personal feedback creating qualitative and quantitative metrics.

A quick and painless method of mobile payment.

NEXT STEPS

Since the conceptualization of this project I have redesigned and revisited the problem trying to further refine the solution.

Moving toward a working prototype with the intention of user testing would be the ideal method for learning about users needs.

I look forward to explore **Travelsafe** more and learning about the UI/UX community.

THANK YOU