WAZE DESIGN PROJECT

CGT 256, TEAM 08

TABLE OF CONTENTS

TEAM 08

Katie O'Brien

Alex Lederman

Jessica Townsend

Brandon Nguyen

Liam Russell

PROJECT 1 OVERVIEW

What We Need

- Waze wants to add a parking feature
- Parking availability at Purdue is limited

What We Did

- Interviewed Purdue students who drive to campus and need a place to park
- Analyzed interviews from other groups
- Created an Interview Synthesis
- Determined a Root Problem

The team interviewed **4** Purdue students who drive on campus and synthesized **15+** interview data from other teams. The team uses this data to define the root cause.

RESEARCH

Location: COREC
Available Parking Spots: 3
Average Wait: 45 Minutes
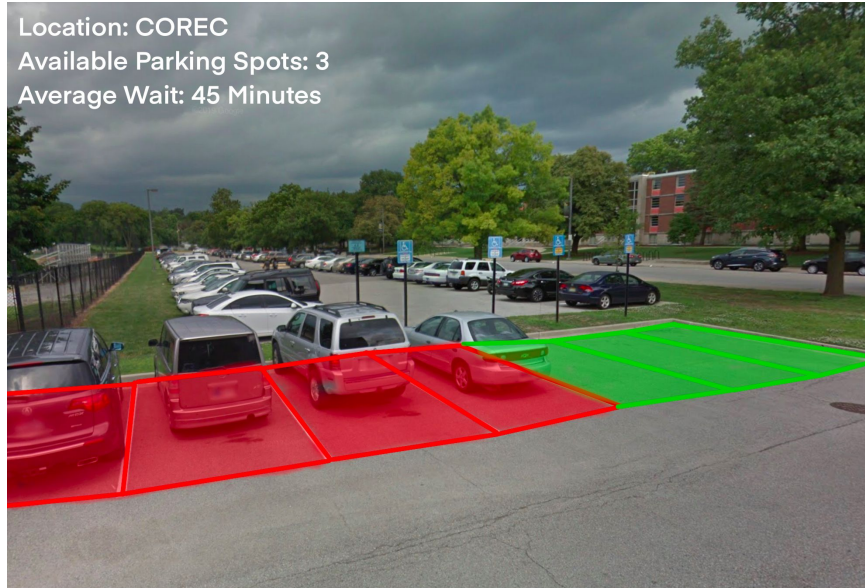
Designed by Alex Lederman

LAB@Interview SUMMARY Resu
File Edit View Insert Format Slid

⚠

ROOT
PROBLEM

The availability of parking spaces on campus is limited. Even if there are open parking spaces, they are hard to find.
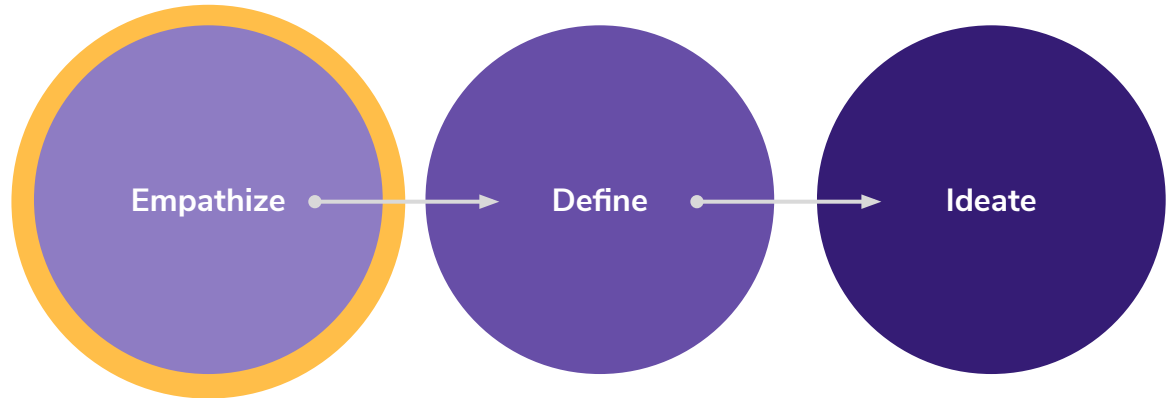
Photo by Andrew Gloeckner

EMPATHY

It is important to learn about the difficulties people face, as well as to uncover their latent needs and desires in order to explain their behaviours.

We empathize with our users by:

- Reviewing our personal experiences
- Conducting interviews
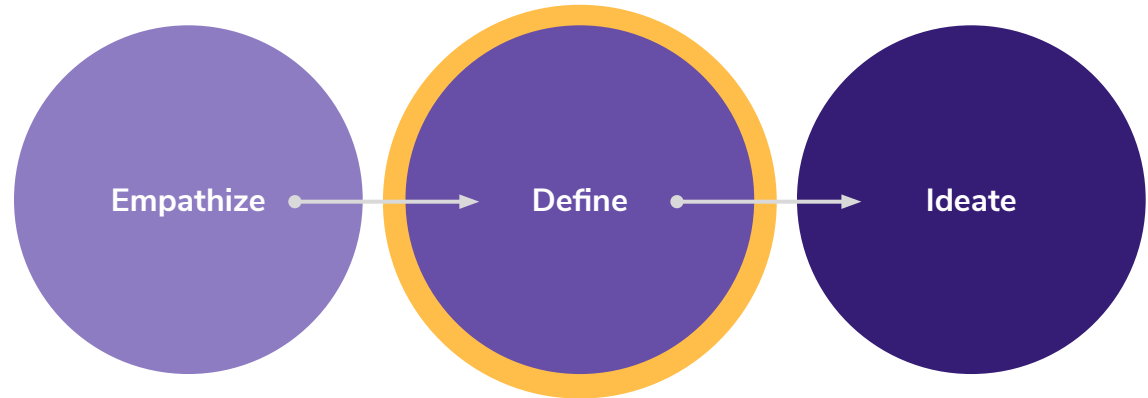
Empathize → Define → Ideate

DEFINE
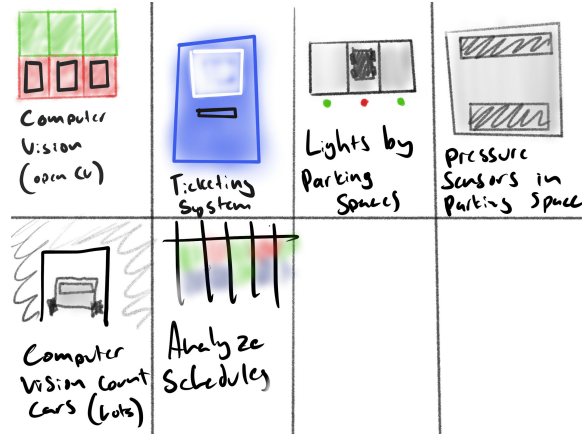
Through our synthesis we found the following underlying themes:

- Hard to find a parking space.
- Almost impossible to find metered parking
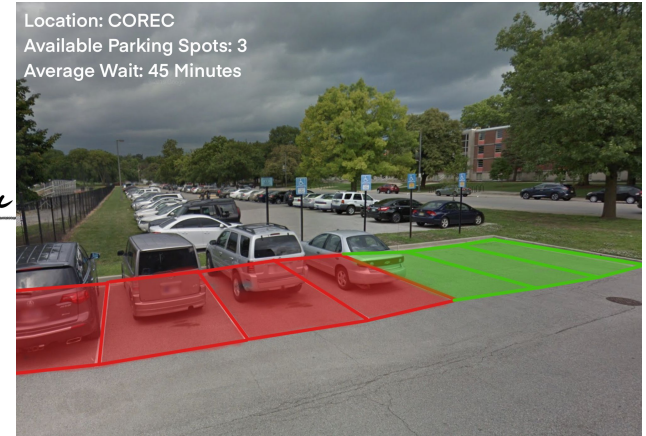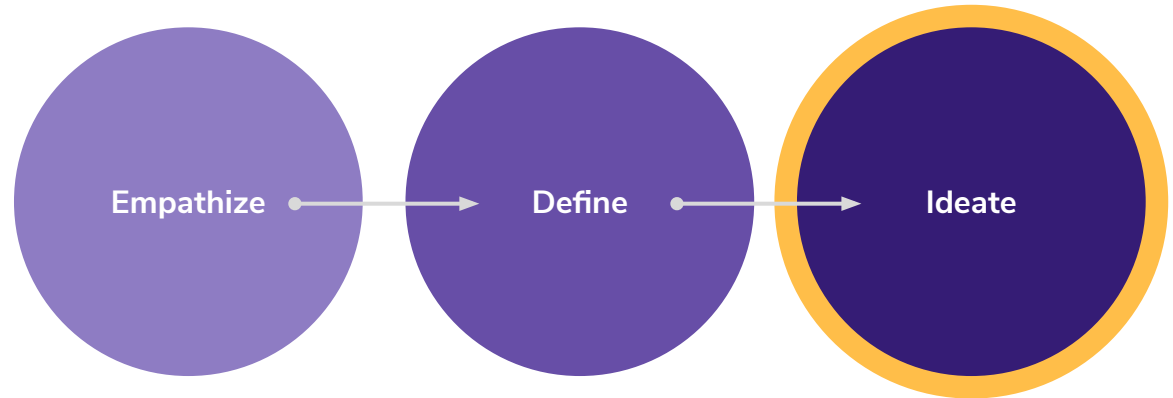- Sometimes difficult to find conveniently located parking

Empathize → Define → Ideate

Designed by Alex Lederman

Designed by Alex Lederman

IDEATE

Empathize → Define → Ideate

SCENARIO

"Campus parking is difficult. I need a feature from Waze that would help make it easier to park on campus."

Photo by Warren Wong on Unsplash

- Needs reliable parking space on campus
- Spend valuable time every day looking for parking spot
- Have parking pass, but no available parking near classes

Project 2 Overview

What We Need

- Waze wants to add a parking feature
- Parking availability at Purdue is limited

What We Did

- Created Adobe XD prototype and performed usability testing
- Undergo 2 sprints
  - Sprint 1 - Lower fidelity prototype
  - Sprint 2 - Higher fidelity prototype
  - Get feedback from both sprints
- Create final prototype
  - Get feedback from final prototype

Sprint 1 Results

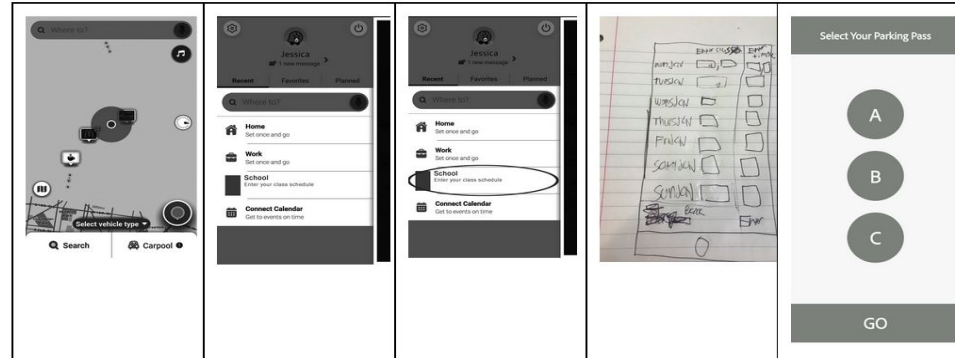## Sprint 1

- Established the tasks and steps for our solution
- Create low-fidelity prototype
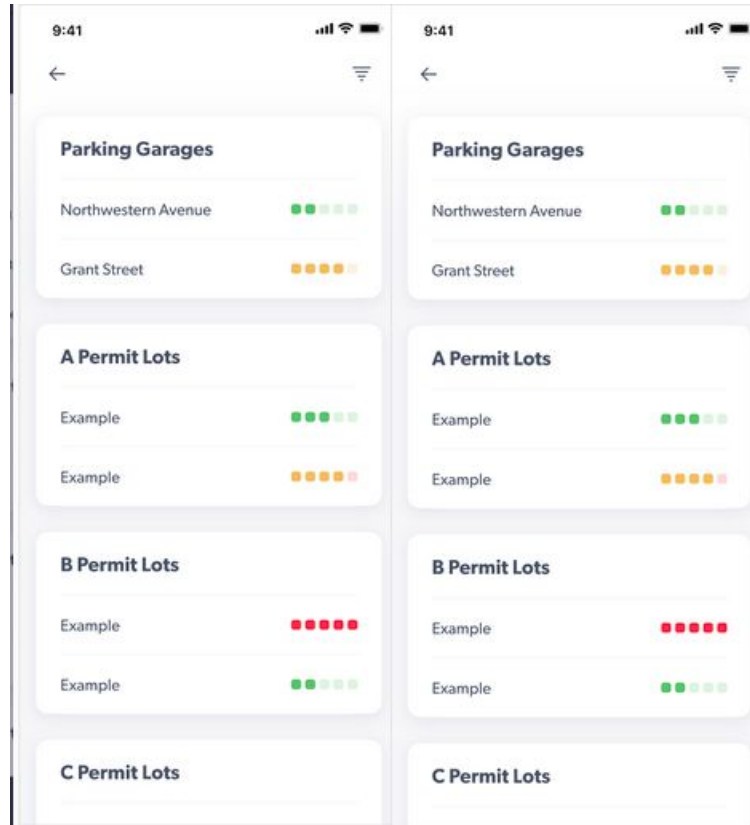
TASK 1: Parking Availability
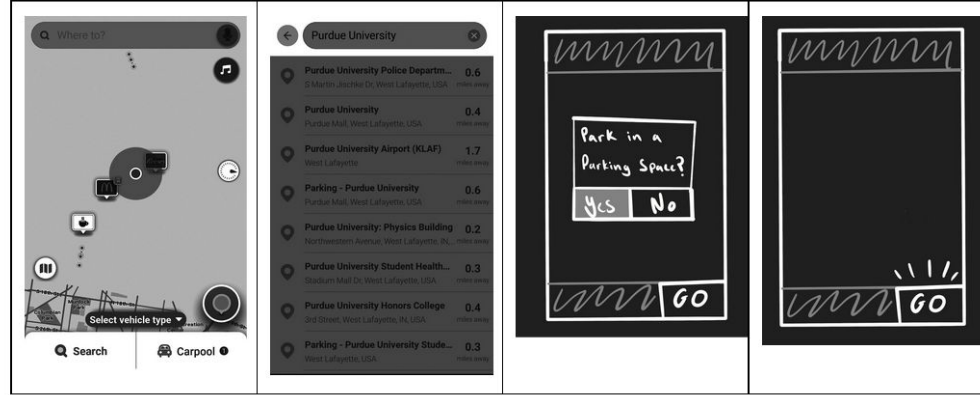
TASK 2: Schedule Analysis

Sprint 2 Results

- Added a page informing the user of parking availability in multiple parking lots at once as opposed to only displaying the selected lot's availability.

13

Final Prototype Part 1
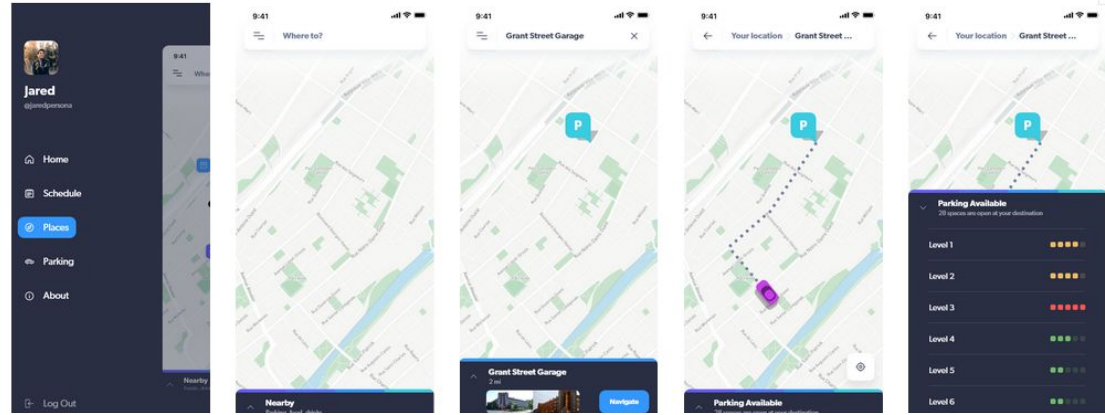
Deployable IOT Cameras Across Campus

- Cameras will track parking spaces.
- Use open-source computer vision software (OpenCV)
- Notable information will be forwarded to Waze.
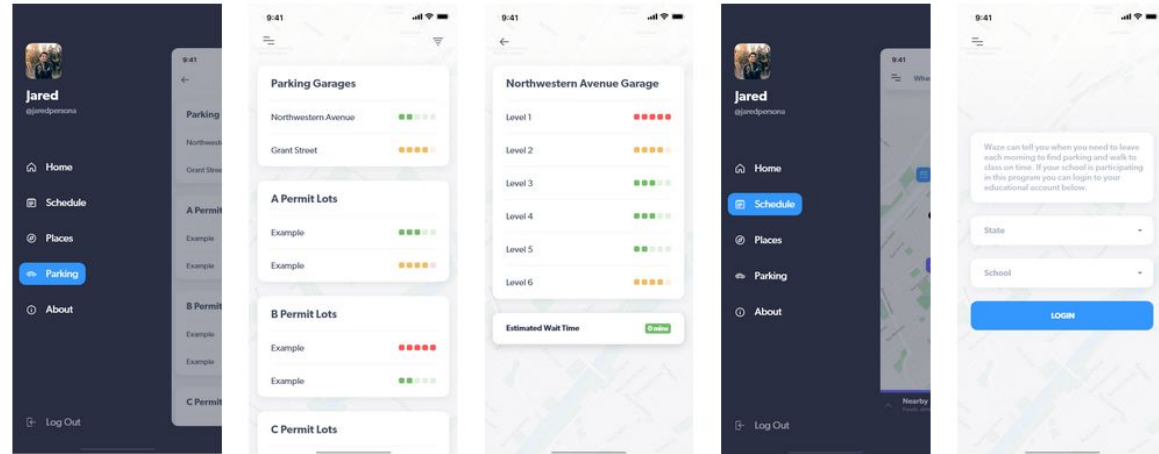- Students can enter their class schedule for a personalized experience.

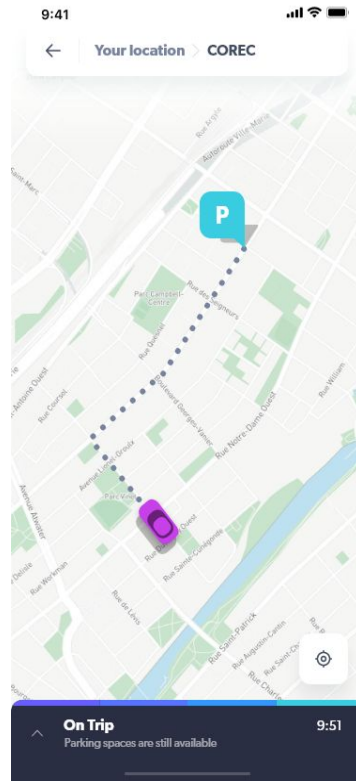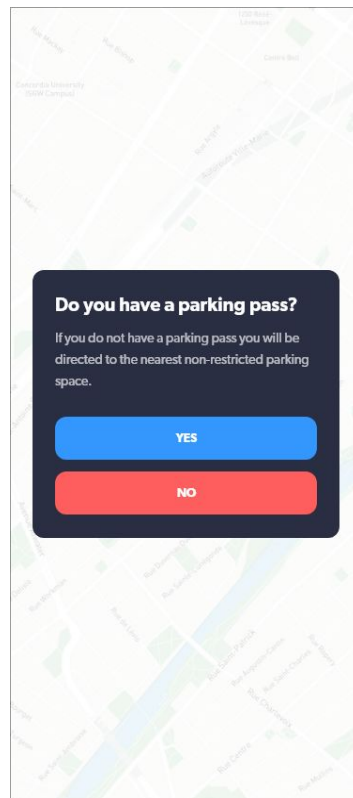# Final Prototype Part 2

Main Navigation

Parking

Schedule

WAZE
IMPLEMENTATION
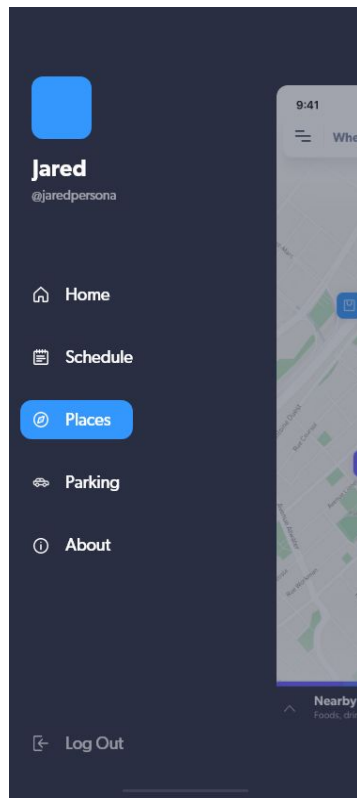
Designed by Alex Lederman using Aurélien
Salomon's UI Kit

FEEDBACK
Part 1

Questions asked:

1. What do you think about our potential solution?

2. What do you think about these tasks and steps?

"This makes it easier to find parking, although it does not increase the physical amount of spots."

"I would have liked for the parking spot to be based on where my classes are."

"This looks promising. It reminds me of what it looks like at airports."

"I would definitely use an app if it lets you park and get to classes quickly."

FEEDBACK
Part 2

Questions asked:

1. How do you feel about final prototype?

2. What could help improve this prototype?

"Everything is very easy to find! However it's a bit boring to look at"

"Its looks very much like waze but it seems to be lacking some functions"

"This looks great and is very easy to use! I would love to use an app like this to help me plan out my day"

"Great! I would just suggest you use more colors that are more eye catching in certain areas"

NEXT STEPS
Part 1

The root problem that we are attempting to solve is parking availability on Purdue campus.

We have received feedback on our design solution and if we had more time, we would have done the following:

- Create more high-fidelity prototypes
- Perform usability testing
- Perform heuristic evaluations
- Reiterate on existing designs / solutions
- Test connection and camera for one parking lot
- Refine the design solution
- Collect more data (do more interviews, etc.)
- Contact Waze for their thoughts on the design solution and data
- Design for campus-wide use

NEXT STEPS
Part 2

We finished up our sprints and created a final prototype and received feedback from representative users.

If we had more time, we would have done the following:

- Implement a more visually appealing user interface using gestalt principles
- Start doing wide scale testing on 100+ individuals from a range of demographics
- Reiterate based on feedback
- Implement a camera system to track cars in one specific parking lot
- Collect more data (do more interviews, etc.)
- Contact Waze for their thoughts on the design solution and data
- Implement prototype with net code on waze.
- Design for campus-wide use