



Chop Chope

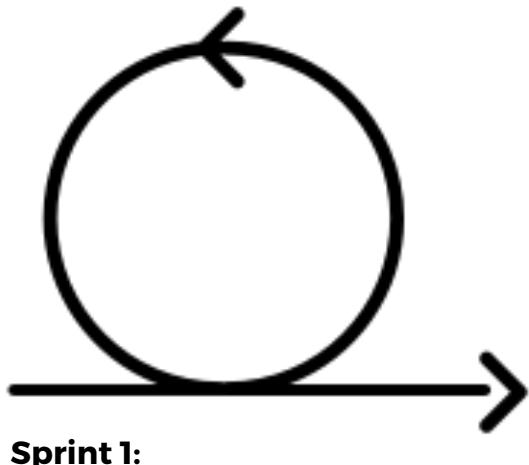
CEO Innovation Challenge

Our Story & Outline

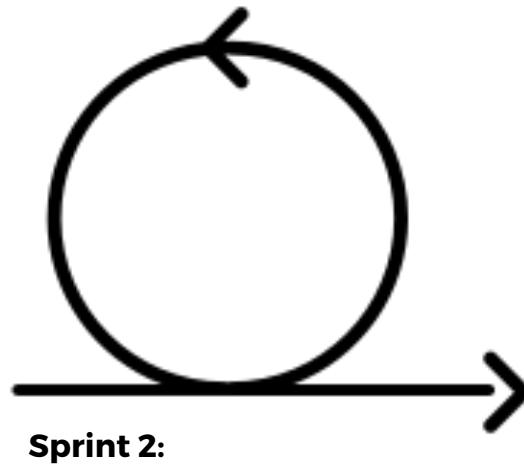
- Challenge
- User Journey
- Initial Solution Idea & Assumption

- Market Research
- Pivot & Narrowing Down

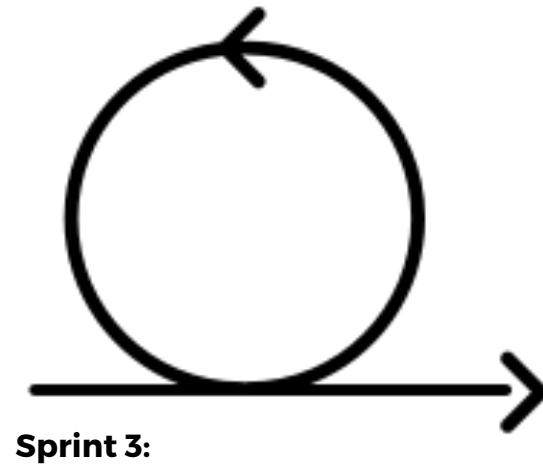
- Solution
- Functional Prototype



Ideation

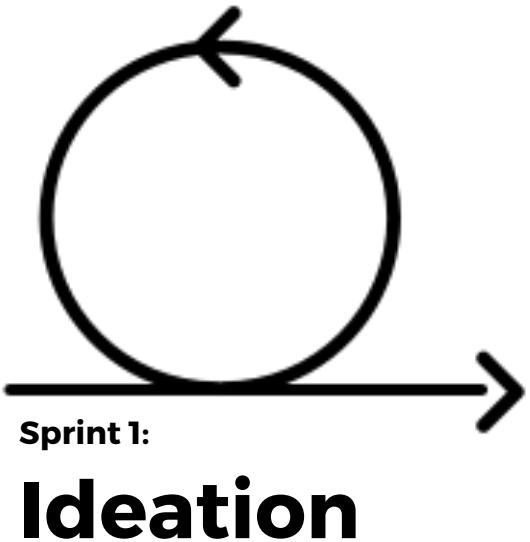


**User Research
& Validation**



**Solution &
Prototyping**

Outline



- Challenge
- User Journey
- Initial Solution Idea & Assumption

The Challenge

- Consumers primarily face 2 problems when they eat at a Hawker centre/Food Court:
 - To find and choose a seat
 - Long queues to buy their favorite food
- The challenge is to eliminate one of these problems and save time for meals, so that we **utilise our meal time more productively.**



*Can you afford
to be late to
your afternoon
meeting?*

*Where to
secure seats for
our group of 5
pax?*

User Journey of the consumers

Where to eat at ah?

Don't know leh,
you decide



1. Decide on which food centre to dine at

L 0-5 minutes taken

There there, faster
go get those seats
at that corner



2. Arrive at food centre, prepare to find and chope seats

L 5-15 minutes taken*



Wah the fish soup long queue...
but I really want that to keep
healthy and slim!

3. Queue for food at stall / hawker

L 5-10 mins for average stall
15-30 mins for popular stalls

You go buy first,
I chope the
seats for you all

*According to survey data,
60% of respondents take 5-10 mins to find a seat
while 30% takes more than 15 mins

Initial Scope of Solution

TARGET AUDIENCE



Consumers at food courts
and hawker centres

PROBLEM FACED

Time wasted in:



(1) Finding a seat



(2) Queuing for food

SCOPE SELECTION

We will be solving the issue of
finding seats due to:

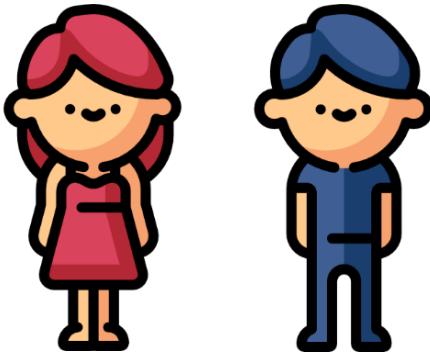
- ◆ The limited scope of the other issue
- ◆ Existence of similar apps (i.e. "Why-Q" and Namnam) which made the ordering solution not as innovative
- ◆ Feasibility of ordering app adoption by different food stall tenants / hawkers – Very low

Finding a Seat Solution

Consist of two components:

SEAT VISIBILITY

Consumers are able to view the number of seats left in a particular food centre chosen

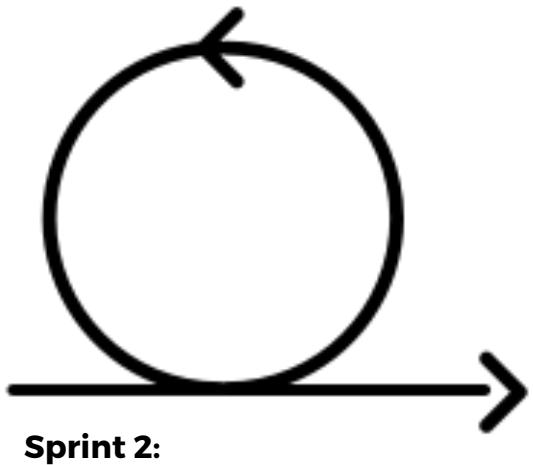


Consumers at food courts
and hawker centres

SEAT RESERVATION

Consumers are able to book the number of seats required and proceed to seats directly after buying food

Outline



User Research & Validation

- Market Research: Field & Online Survey
- Market Research: Kopitiam Floor Manager
- Pivot & Narrowing Down

Market Research

ONLINE SURVEY

The screenshot shows a Google Forms survey titled "Chop-Chope - Market Research". The survey introduction states: "We are developing an app solution to help reduce the waiting time wasted during lunch time. Do help us to answer a few simple questions so that we can develop and refine our solution!" Below this, there is a placeholder text "An everyday scene :)" followed by a photograph of a food court with several people at tables. The first question is: "1. How often do you eat at food court/ hawker centre for lunch?" with options: Once a week, 2 to 3 times, 4 to 5 times, and Never.

Google Forms

FIELD RESEARCH



Cecilia, our field researcher



Hong Lim Food centre "Market" Research



Our survey forms filled by consumers while they queued for food



Market Research

KOPITIAM - FLOOR MANAGER OFFICE



- Both Floor Manager and Assistant Managers are **open to adopting our solution** and have a **positive reception** towards the idea. However, they expect installation of sensors to be seamless and without cost to them.
- They find that having the **data will be useful for them to plan the resources** across food courts such as managing on-floor cleaners deployment.
- They also shared that currently they are facing a hiring crunch and having this application would help them to manage their manpower efficiently



Deep in discussions

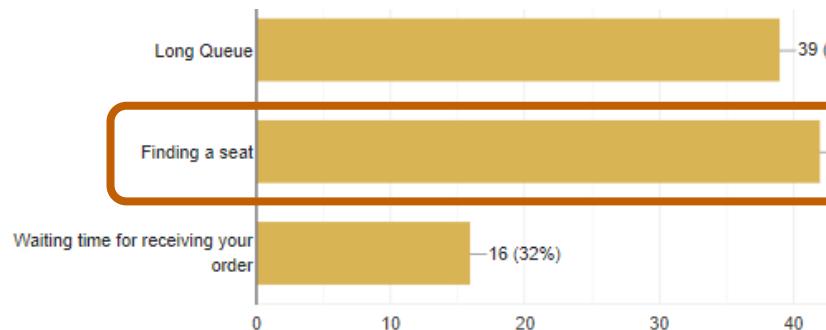
Idea Validation : Focus on Finding Seats

TOTAL OF 51 RESPONSES - ONLINE AND FIELD

86% of the respondents dine at food courts/ hawker centres for lunch more than 2 times a week

52% of the respondents spend 45 mins or more at the food centres – with other 48% spending lesser than 45 mins

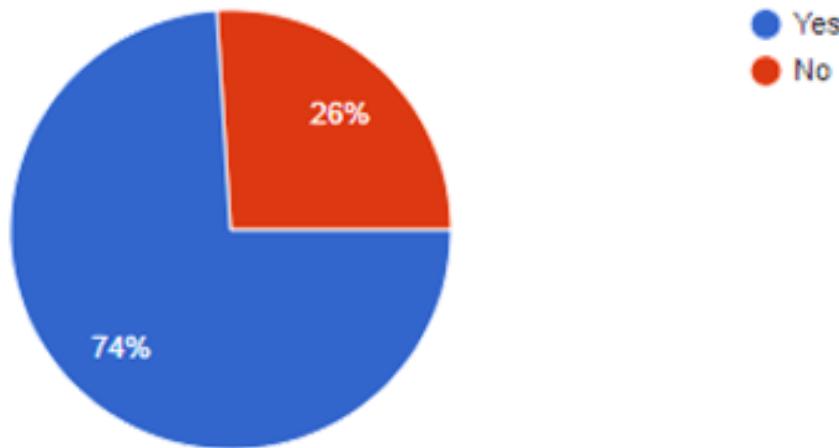
Challenges faced when eating at food court/ hawker centre:



*This validates our focus on the solution to **finding a seat***

Idea Validation: Reservation is not an answer

If there is a new web / phone application to assist you to 'chope' your seats, will you use it?



RED FLAGS OF SEAT RESERVATION

What would be challenges/concerns you foresee when using such an app?



People **may not cancel** their reservation.

Kiasu people **booked but never cancel** when no show. Should impose a penalty like Grab after multiple no shows

People might not care and **refuse to leave the seat** even if it is choiced. Also hard to maintain

How do other people see that you have booked the seat and not take it?

People **not following** the booking system

Not practical, besides **no one will be so discipline to use the app**, esp. for the elderly who sits down, eat their food, not nice to interrupt them.

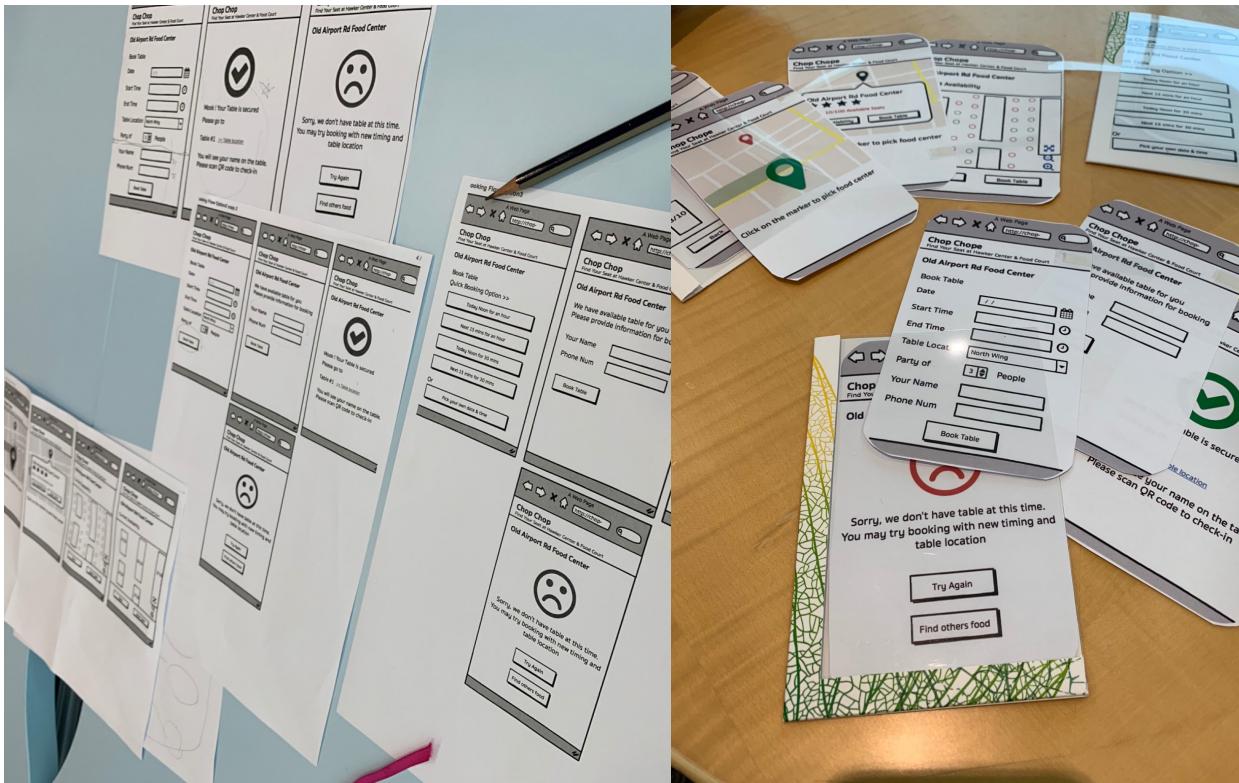
If you have selected "No" please state your reasons:

Other people may not be aware of the apps and **still chope using other means**.

Personal preference to be **physically present**

Maybe more useful for Food Court with office crowd. I will have 1 more mobile application to install which I am not keen. At the hawker centre, I usually get seats quickly, so it might be **extra step for me if I need to reserve** using the App..

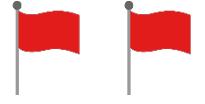
Idea Validation: Reservation is not an answer



RED FLAGS OF SEAT RESERVATION

Feedback from the Usability Testing

- What happened after the booking is completed in the app? It is so confusing.
- **I don't want to fill out this booking form** or give my name , phone number.
- What happens when **someone occupies my seat** despite me booking for it?
- People **book in advance** for the seats but **doesn't show up** at the hawker centre
- Even if there is a function to release the seats that are not utilised e.g. after 15mins, the **time is still wasted** and people wouldn't wait. Hence, **app becomes redundant**.
- Using the **tissue packets to choose seats gives more assurance** in securing the seating compared to using the app to make the booking.
- What happens when **I don't finish my meal within the booking time?**



Narrowing down and Refining the Solution

Narrowing Down to Seat Visibility

TOTAL OF 51 RESPONSES - ONLINE AND FIELD

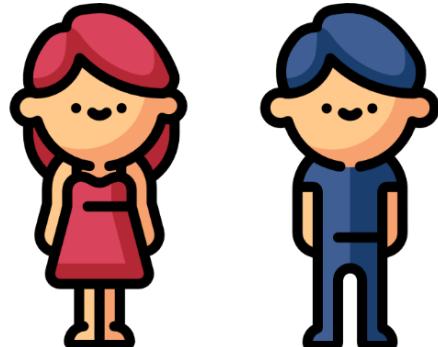
74.5% Booking prior to lunch time to reserve seats

85.1% Visibility of seats available in the application

70.2% Easy edit and cancellation function

61.7% Notification of status update

Narrowing Down to Seat Visibility



Consumers at food courts
and hawker centres

Consist of two components:

SEAT VISIBILITY



The market research helped us to narrow down into a solution which is more feasible

Consumers are able to view the number of seats left in a particular food centre chosen

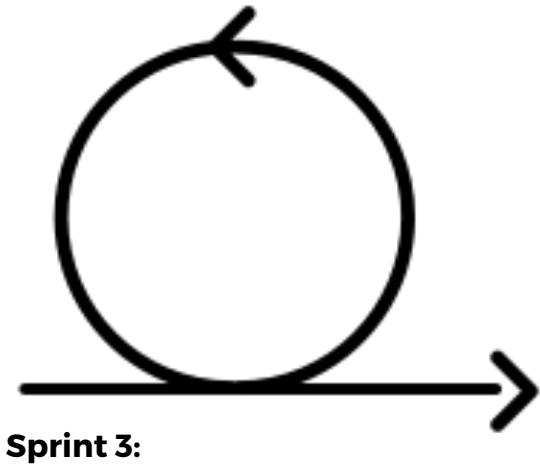
SEAT RESERVATION



The number of red flags on user behavior and culture made this component not ideal to pursue

Consumers are able to book the number of seats required and proceed to seats directly after buying food

Outline



Solution & Prototyping

- Consumer Use case Scenario
- Consumer Application Flow
- Floor Manager Use Case Scenario
- Floor Manager Dashboard
- Functional Prototype Technical Detail

Consumer - Use case scenario

SEAT VISIBILITY

Multiple user journeys:

- Deciding where to go



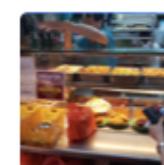
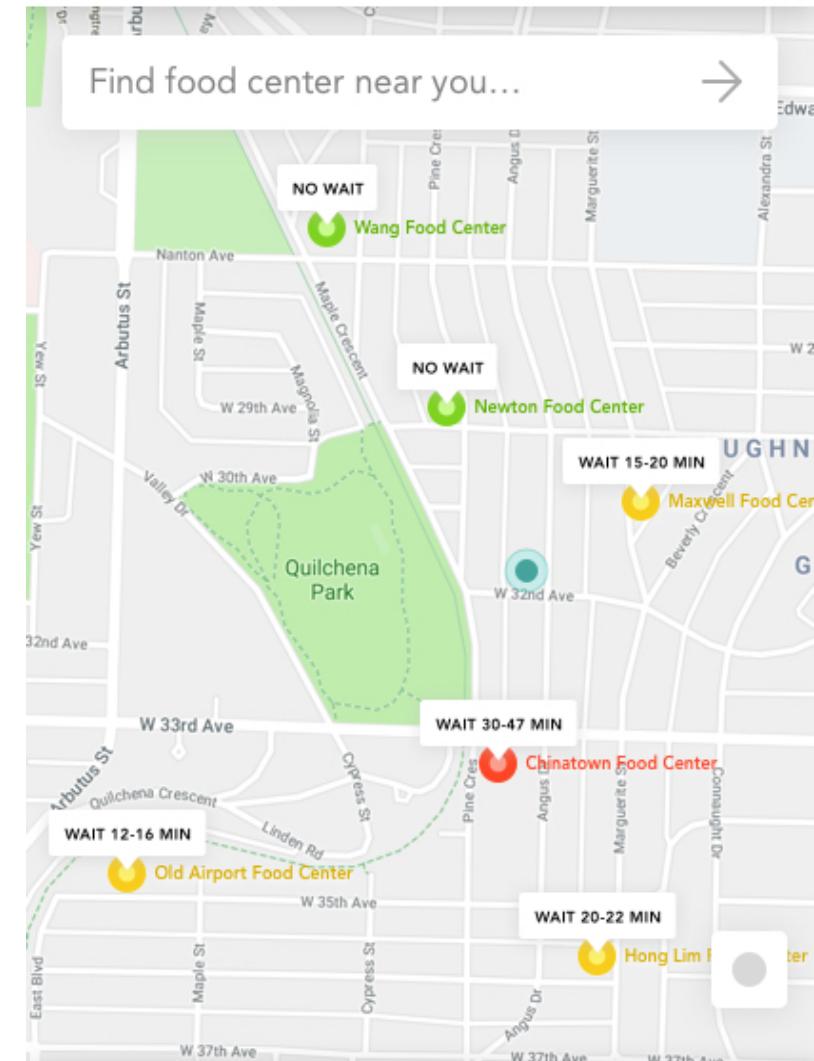
Where to eat at ah?

Ah..the app shows that Place A is not so crowded.
Let's go there!

- Search for area to go to chope seats
 - Moving into a less-occupied area of the food centre to chope seats
- Waiting for people to finish and leave their seats



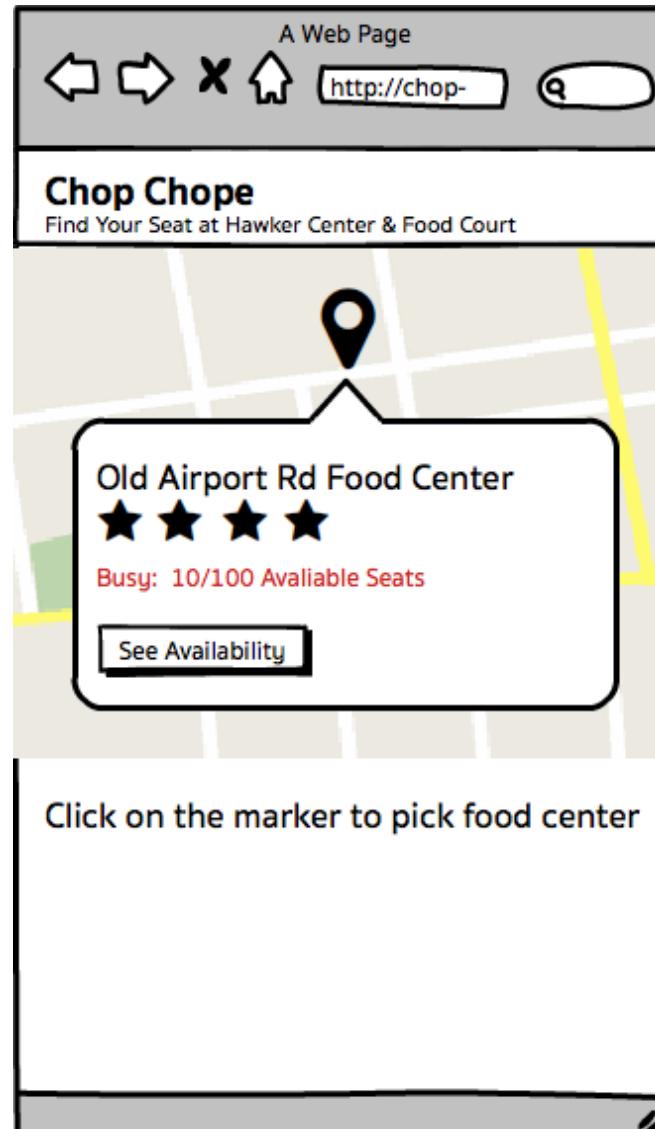
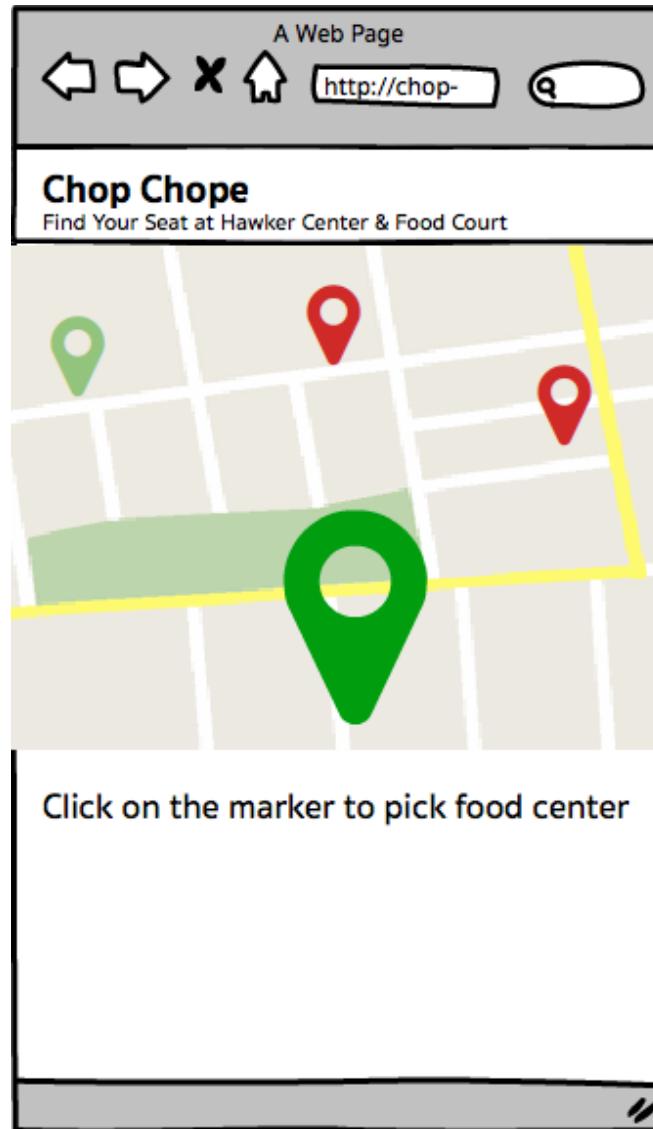
(checks app) This person has been sitting here for the last 45 mins. He should be leaving soon. Let me wait here....



Maxwell Food Center 5.0 ★★★★ (263)
 Hainanese Chicken Rice • Chinese • Dim Sum
 Opens 6:00 AM - 9:00 PM

Available Seats 35/50 (A little busy)
 20 more people will leave in 5 min

Consumer - Application Flow



Floor Manager - Use case scenario



Floor Manager at food courts
and hawker centres

SEAT VISIBILITY

Motivation & Responsibility

- Drive sale at the food centre
- Manage resource including staff, cleaner, table, seats
- Manage the stalls
 - **Managing staff and cleaners**



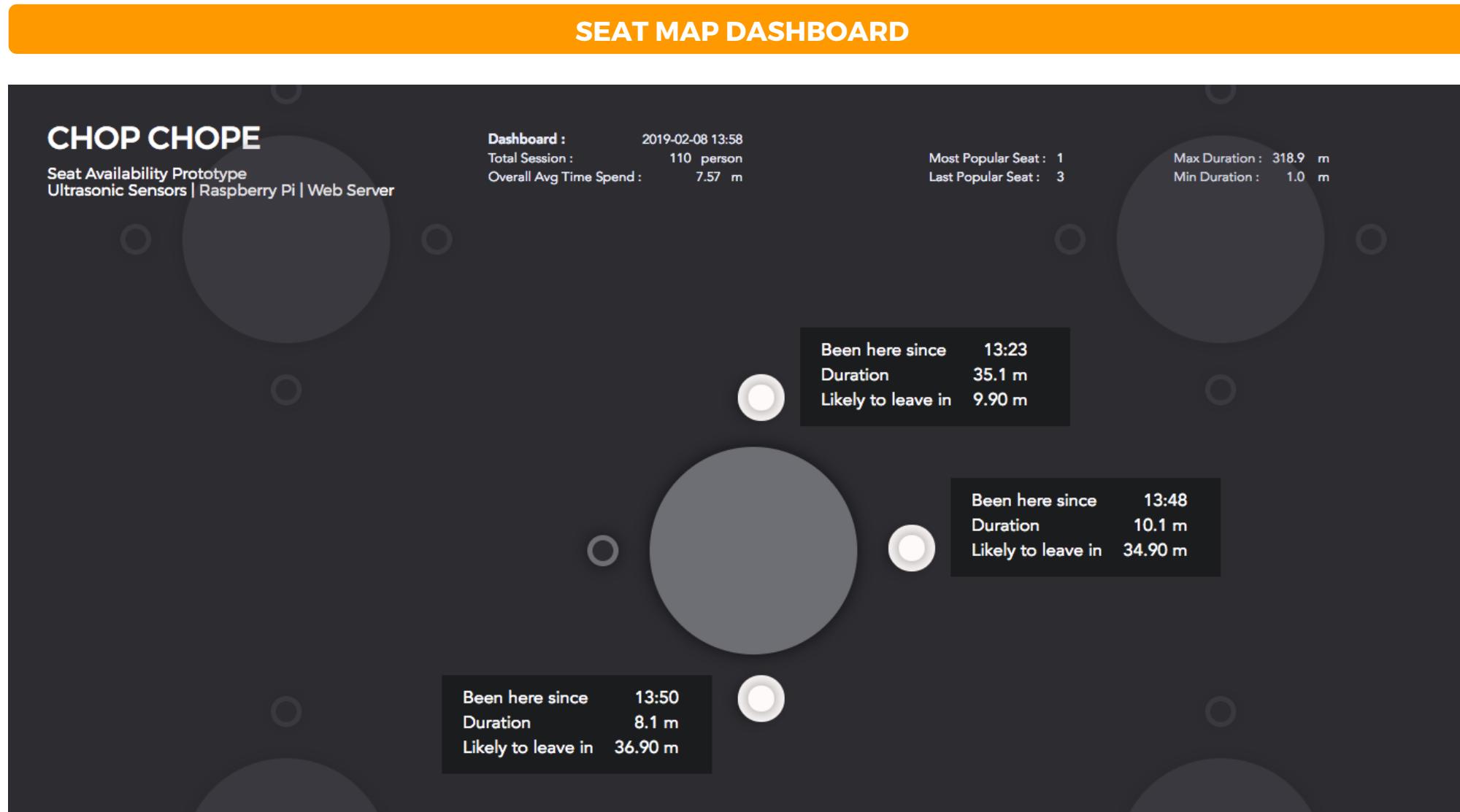
How many cleaners do we need ?
Which area need cleaners?
Should I recruit more people?
How to align demand with cleaner schedule ?

- **Manage and design the floor plan**

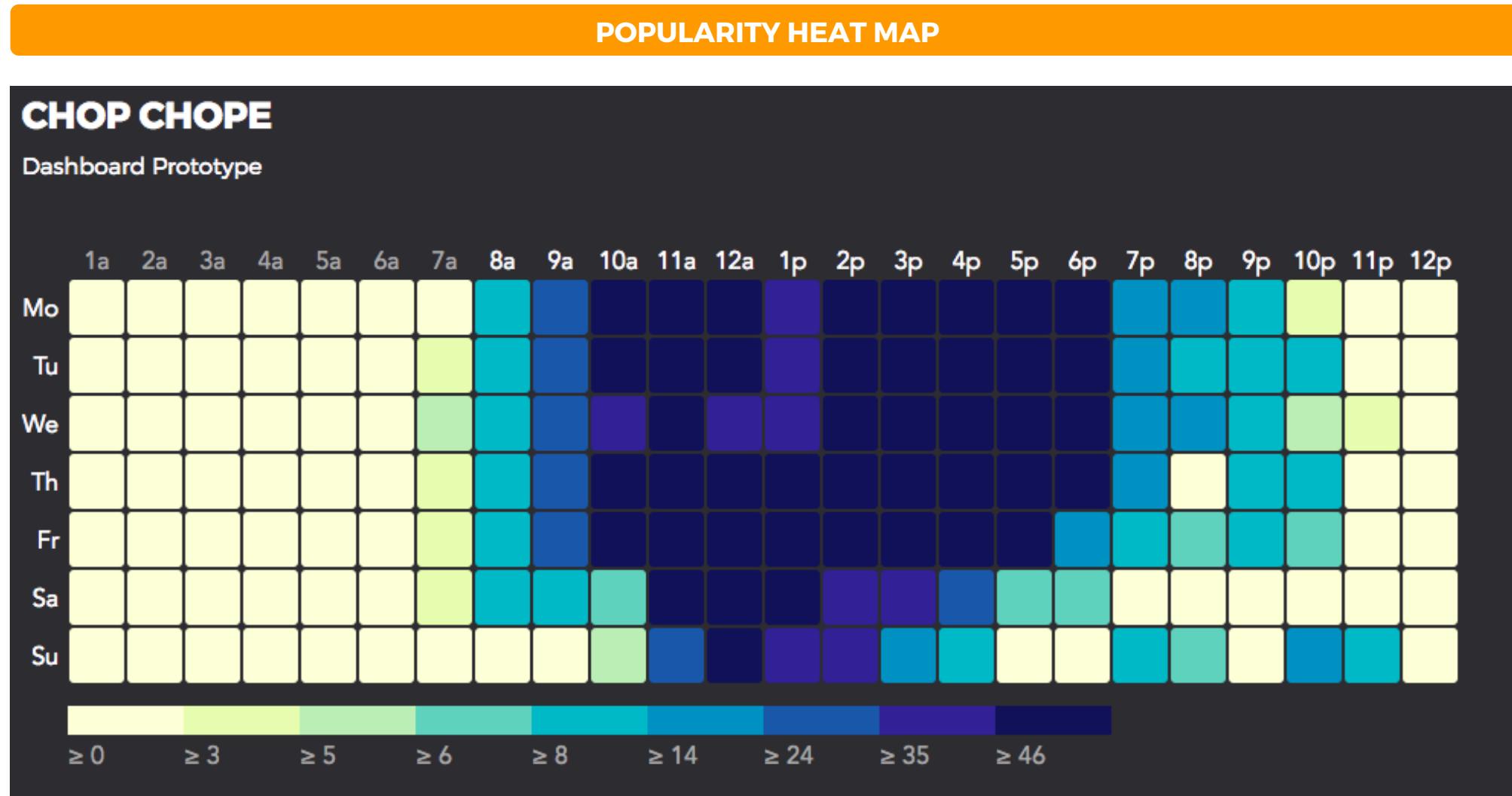


Where do people like to sit?
Do people like big or small table?

Floor Manager - Dashboard



Floor Manager - Dashboard



Functional Prototype Technical Detail

Functional Prototype - Technology Stack

WEB APP



Python (Django)



HTML



CSS (Bootstrap)



JavaScript

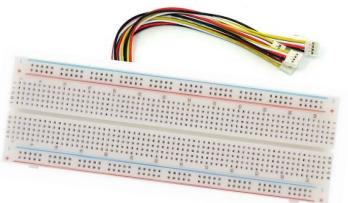
IoT (SENSOR FOR SEATS)



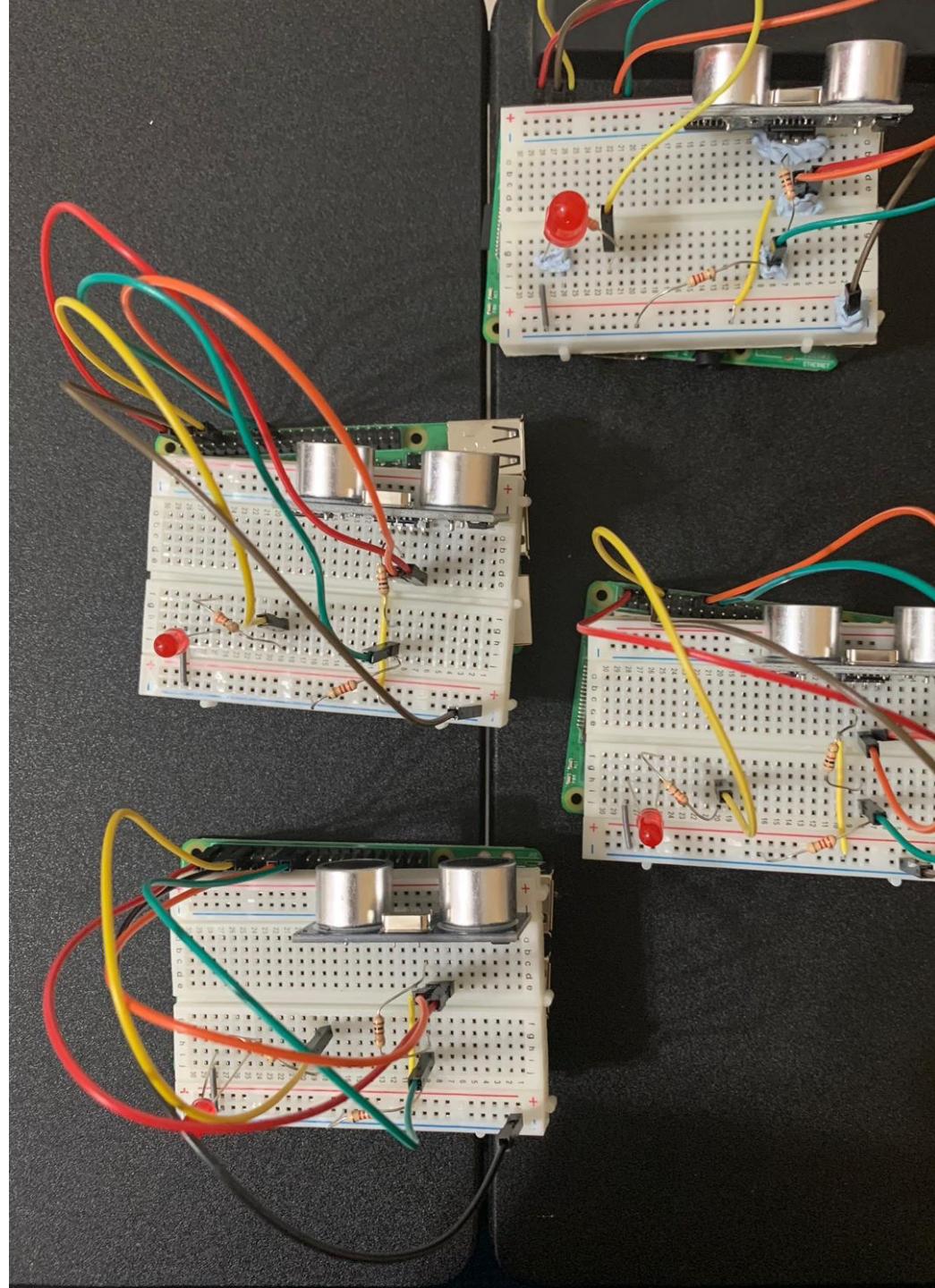
Raspberry Pi



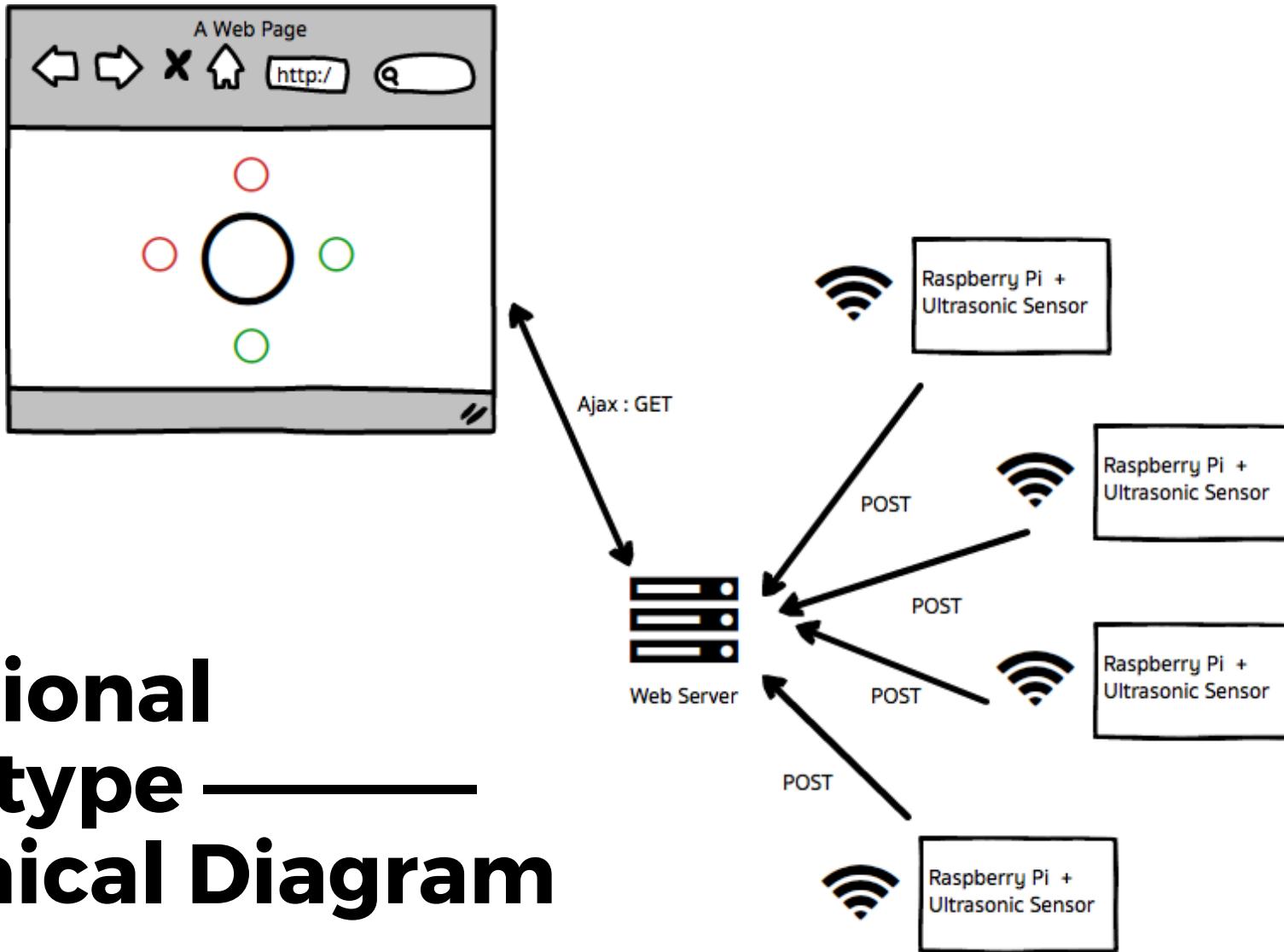
Ultrasonic Sensor
(HC-SR04)



Breadboard and
Jumper Wire

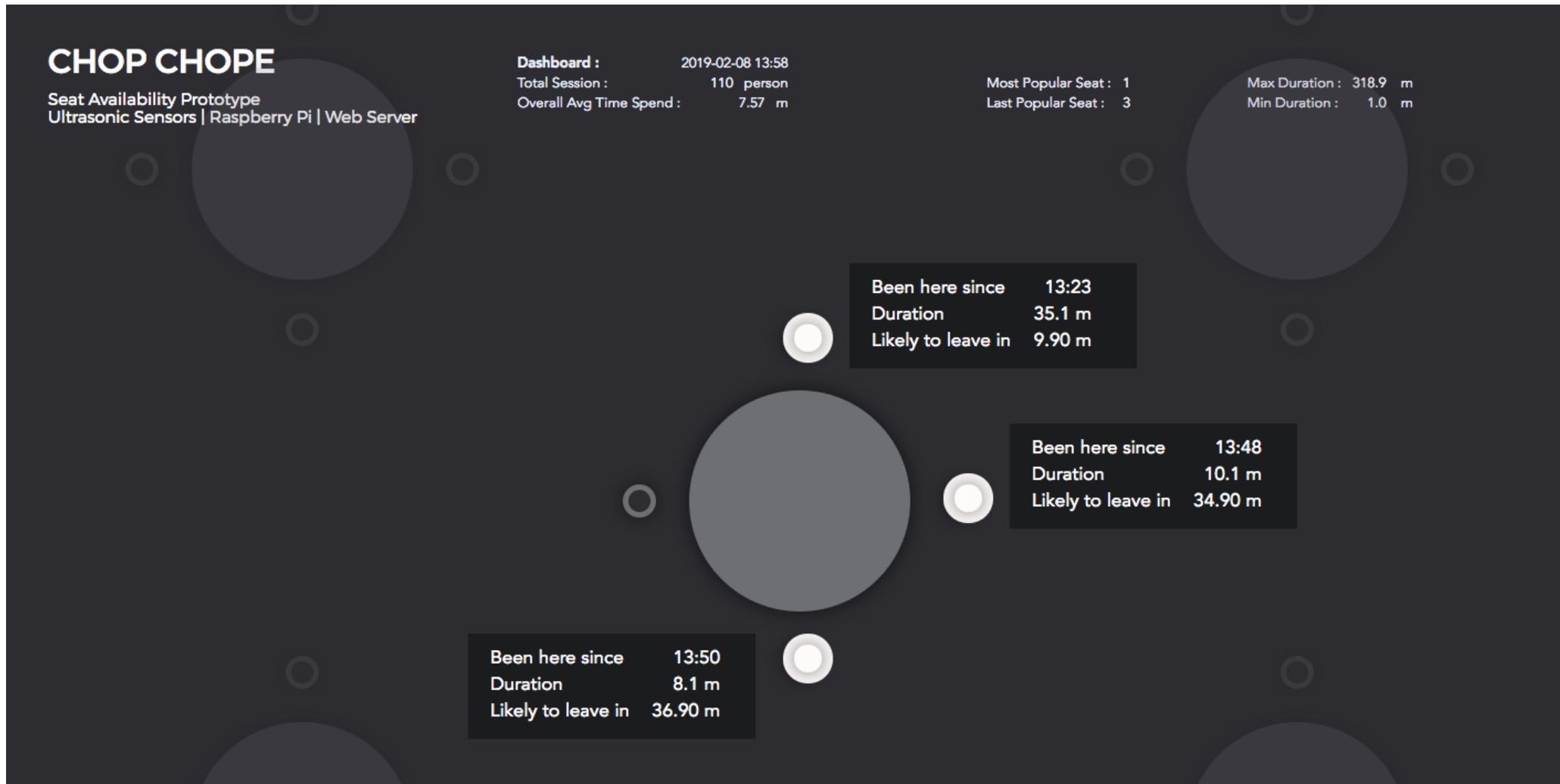


Functional Prototype — Technical Diagram



Functional Prototype

<https://chop-chope.herokuapp.com>



Summary

Chop-Chope!
**Be the fastest to find your next
lunch destination to chope!**

Appendix

- Future Plan & Vision
- Target User Acquisition
- Sustainability (Funding & Operating Model)
- Competition & Market Analysis
- Team & Team Learning

Future Plan / Vision

◆ Timeline of product

Solution is at a Minimally Viable Product (MVP) stage without the ability to scale due to high cost of IoT prototype.

Operationalising the product in an live environment has not been conducted.

◆ Potential developments for prototype

To source for a less expensive board instead of current Raspberry Pi which is too costly for scalable rollouts to hundreds of seats in a single food centre.

Battery issues should be tackled with lower power to maintain sensor and to explore powering a cluster of sensors instead of individual sensors as per current prototype.

We also need to looking into the placement of sensor, so as to detect current chope-ing items (Tissue Packs, Name cards, umbrellas, etc.) which may be hard to detect.

◆ Adoption by Food Centres

During our discussion with food court managers, they are generally open to this solution but would expect the installation of sensors to be hassle free and without costs to them.

We will need to think and develop an adoption strategy to allow food centres to come on board to the platform and to mitigate the production cost perhaps through crowd-sourcing.

Target User Acquisition

Where do your potential users look today to solve the challenge?

Current, users will only be able to have visibility of food centre capacity when they reach there physically. This may result in disappointment and wasted time.

How will you be able to reach your potential user?

Promotion of web app via physical publicity at food centres (wall posters, stickers on tables to inform users that this food centre is sensor-enabled)

How will you achieve your target growth rate?

Convincing food centres to allow sensors installation on seats and providing relevant data to them.

What are the most important and unique channels that will help you to find and win potential user?

Word of mouth - usefulness of the app needs to be so apparent that users will let other non-users know about advantages. Enabling the users with important information so that they will rely it on decision making.

How are you doing it differently from others in the space?

There are no current players in this space as this is completely different from booking apps.

Sustainability (Funding and Operating Model)

Possible avenues of revenue generation after implementation

- Selling of data collected to food centres
- Selling/Rental of physical sensors and installation to food centres
- Partnering food ordering app - advertisement or integrated link to other food ordering apps as next step after users obtain information
- Partnering hawkers - selling food promotions advertising spaces on the app
- To add-on new features/functions to the app in phases so as to increase the usage and stay relevant among the consumers



Competition / Market Analysis

Where do you exist in the overall market space?

We exist alone in our space but within a market space saturated with other apps which are dealing with other functionalities - Food ordering, food delivery, in-house menu ordering and promotions, etc.

What are your advantages?

This will be a free-to-use service and easily available to consumer-users. Such information is not obtainable at the moment for any food centre.

How is your place in the market unique to you?

The service/information we provide is not available anywhere else.

Who are the competitors and how do you differentiate from them?

No foreseeable competitors but government-owned food centres or public agencies may implement similar ideas.

Team

**Annie
Chen**



Experience:
Personal Assistant,
Events Coordinator, Organiser

Role:
Field Researcher role and helped with producing materials for prototyping testing. Able to gather audience/testers with good network.

**Boovanesh
Rajendran**



Experience:
Events and Project Coordinator, Organiser

Role:
Able to capture key highlights and summaries from interviews and surveys and present them in our video editing. Always helps team to take notes.

**Cecilia
Chng**



Experience:
Personal Assistant,
Events Coordinator, Organiser

Role:
Field Researcher role played out well with courageous and open personality. Able to communicate and engage with audience sincerely

Team

**Mook
Chaichirawiwat**



Experience:
Technical Product Manager,
Digital Technology

Role:
Backbone of project with her support of strong coding and programming language skills, and experience in handling and setting up of IoT devices

**Huang
Shixian**



Experience:
Employee Engagement,
Communications

Role:
Thinking through of user journeys, different personas and ideation of solution.
Worked on the communications of pitch deck.

Team Learning

- We got to know each other better only through this project (Members from different departments – Finance, O&P, SSG, Technology)
- Surprisingly, we were able to identify everyone's strengths and weaknesses. The team was able to focus on each other's strengths rather than seeing their weaknesses:
 - Mook being so proficient with technical support and gathered all steps to create trials for the team to execute.
 - Shixian – all rounder to fill up gaps for this overall project
 - Boova – able to capture important points in video creation.
 - Annie and Cecilia – worked hand-in-hand to conduct market research with enthusiasm. Provide pointers to the team after data collection. Annie also functioned as the secretarial person to schedule catch-ups and meetings through project milestones.