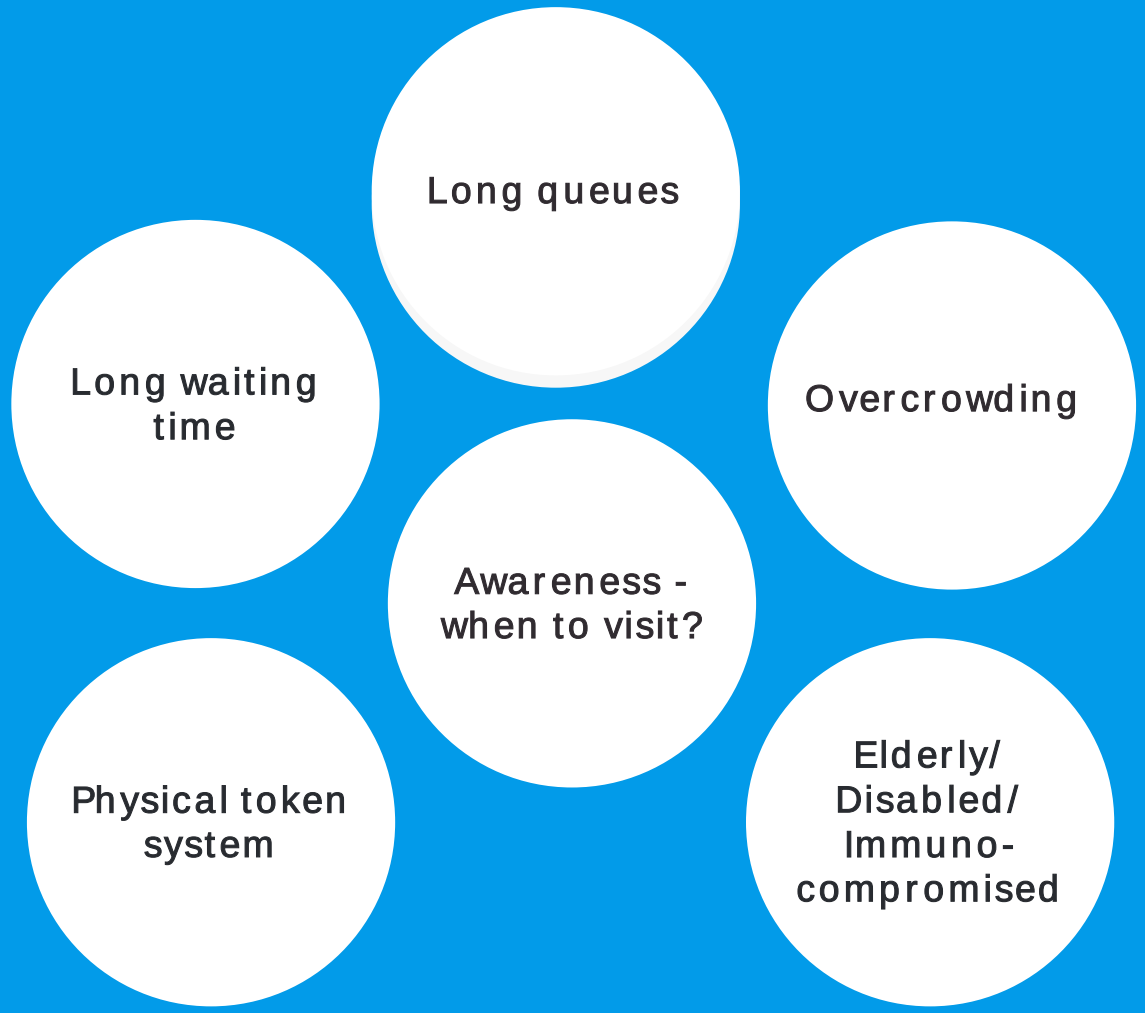
Dis oin
Shop with ease

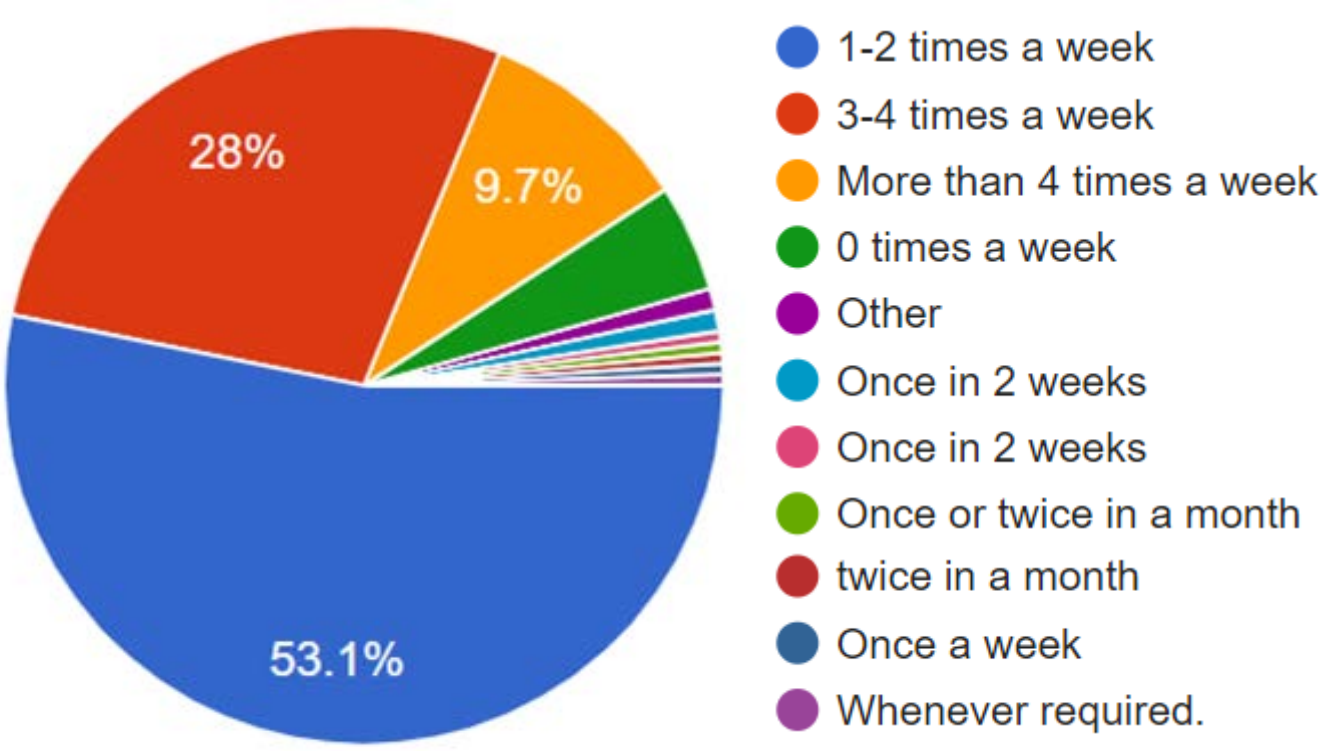
PROBLEM

My mom goes to buy her grocery at 12PM and at the entrance of the store she is handed a token requesting her to visit the store at 6PM. Because the store lets in only 5 customers to avoid crowding and maintain social distancing.

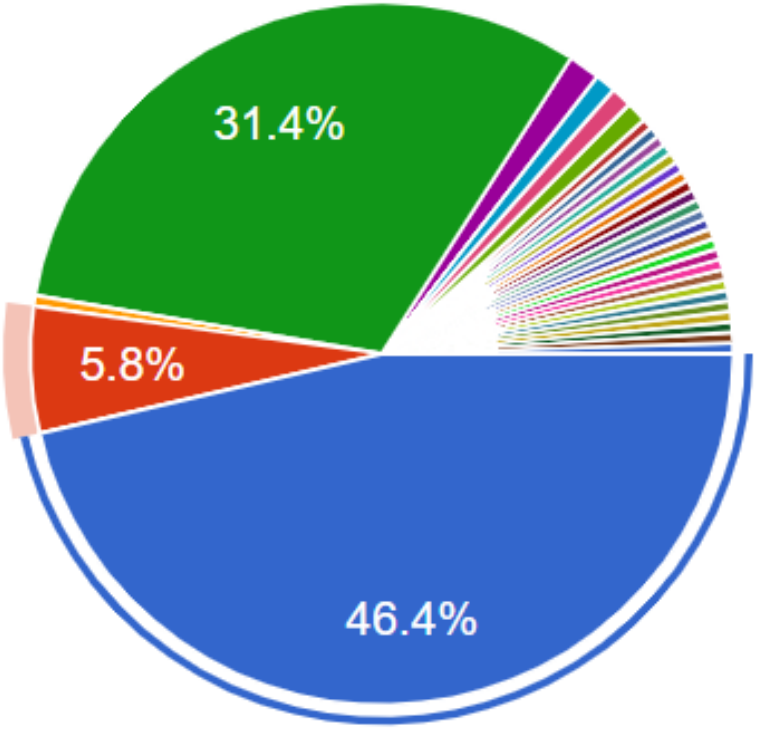
CURRENT SCENARIO



CURRENT SCENARIO

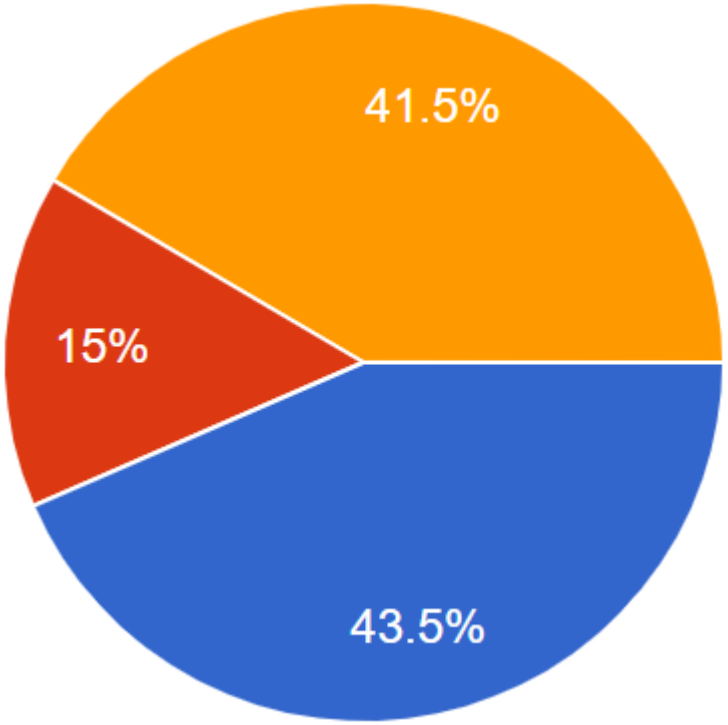


How often did you go shopping prior to COVID-19?

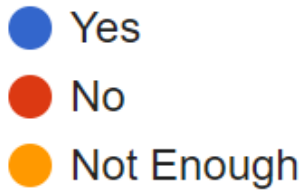


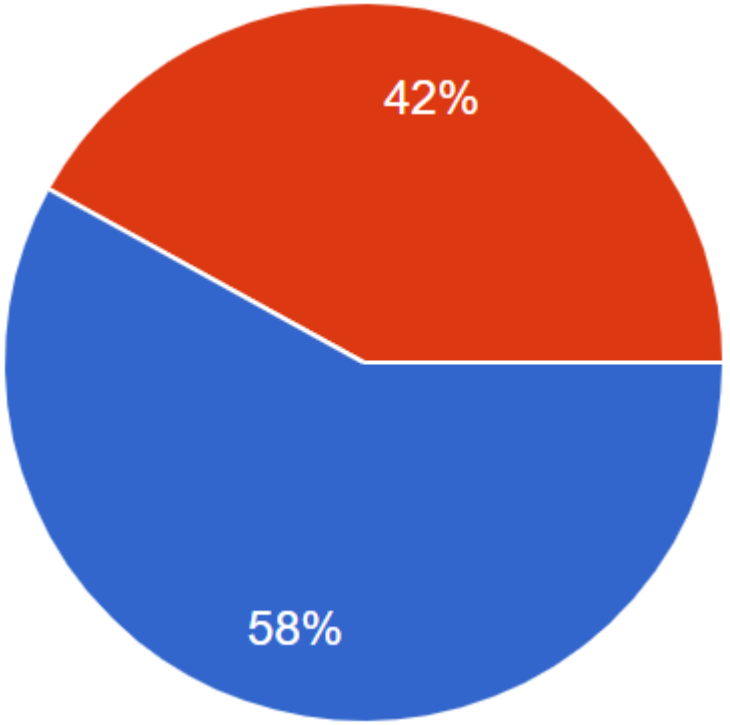
How often do you go shopping during COVID-19?

CURRENT SCENARIO



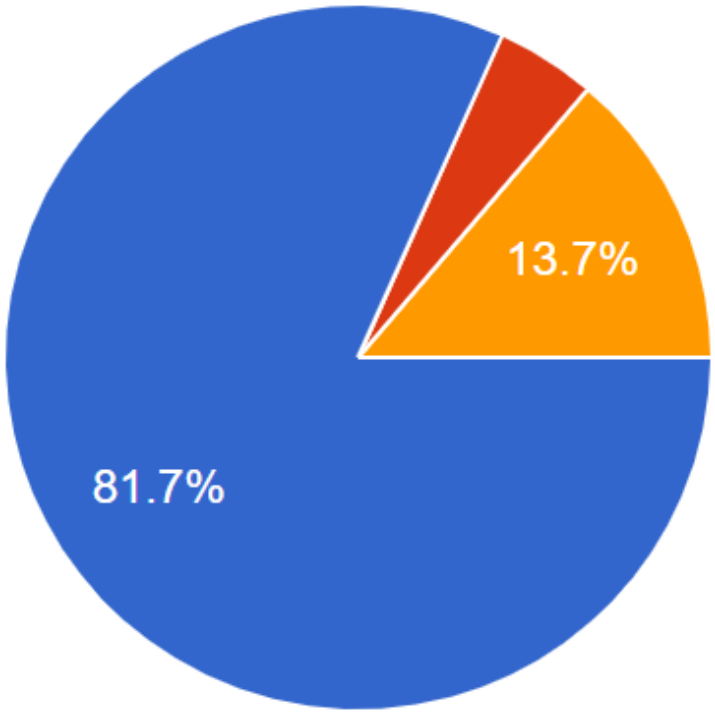
Do you think stores are taking appropriate measures to promote a safe environment?



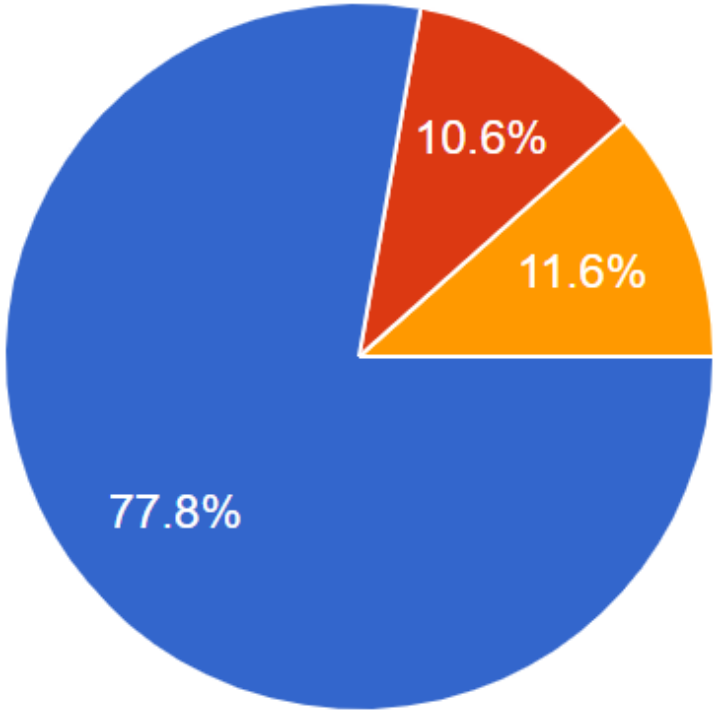


Have you stood in queues outside your local supermarketS during this pandemic?

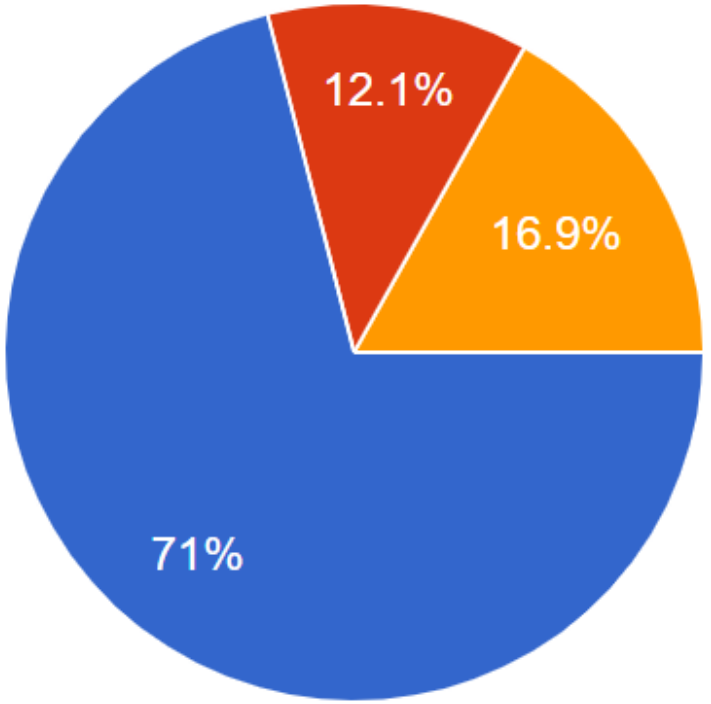
CURRENT SCENARIO



Would you like to know how crowded is your local store before you visit?



Would you like be notified when the local store is less crowded?



Would you like to book your own time slot at your local store when it's less crowded?

WHY DISJOIN?

1 **Pooling real-time foot traffic using counters**

2 Estimating traffic for the upcoming time slots

3 **Option to book**
Provision for E ticketing

4 **Community Volunteering**
Elderly, Needy, Disabled & Immunocompromised

5 **Subscribe option**
SMS & Email alerts

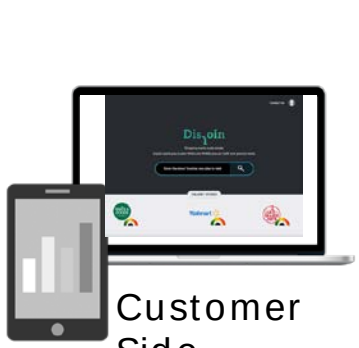
6 **Curbside pickup**

Disjoin

MARKET COMPARISON

DESCRIPTION	CURRENT SCENARIO	DISJOIN
Pickup	✔ Prolong waiting period	✔
Delivery	✔ Prolong delivery option	
Social distancing		✔
Book Visit		✔
Real-time data	✔	✔
Prediction data	✔	✔
Reduce wait time		✔
Community volunteering	✔	✔
Alerts		✔

IMPLEMENTATION



Customer Side

Request

Response

Response From the counters

API request for real-time data

Supermarkets / Third party vendors

Application Layer

Time/ Prediction data

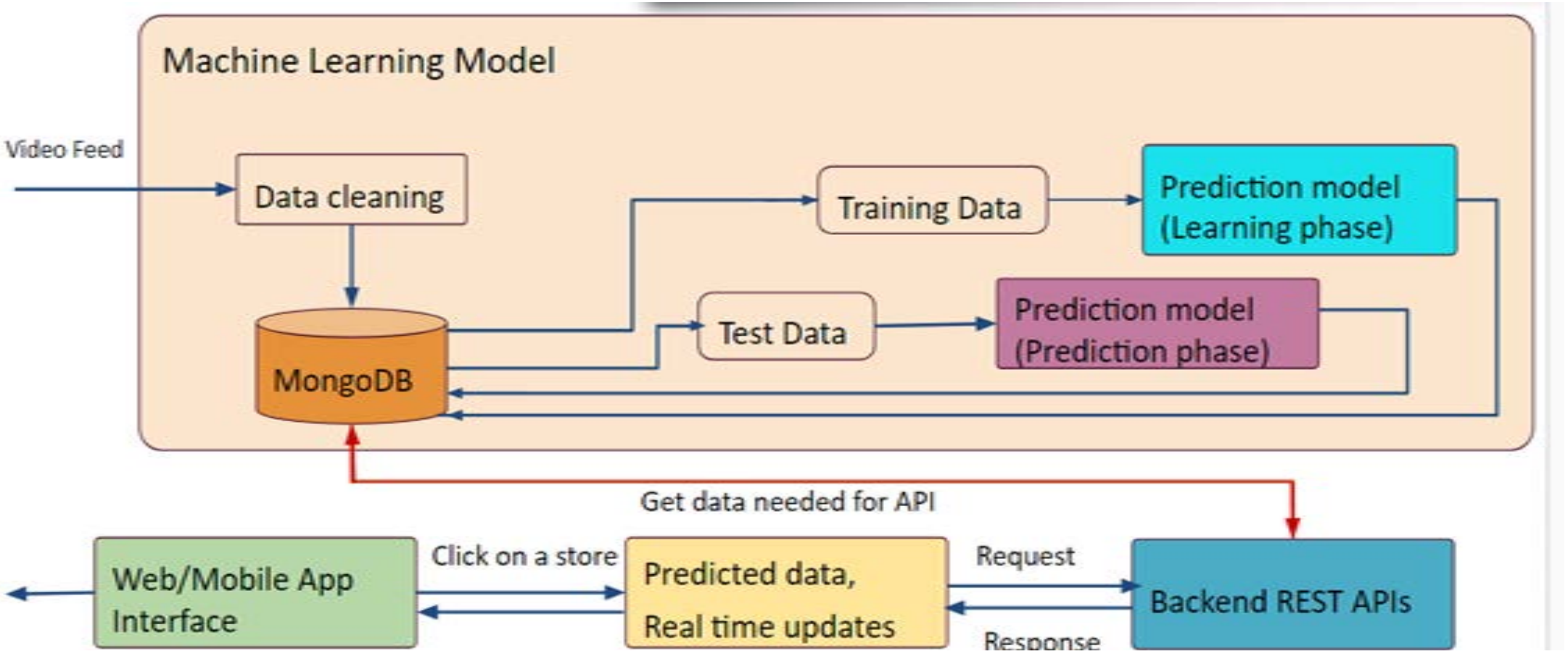
Server

Services

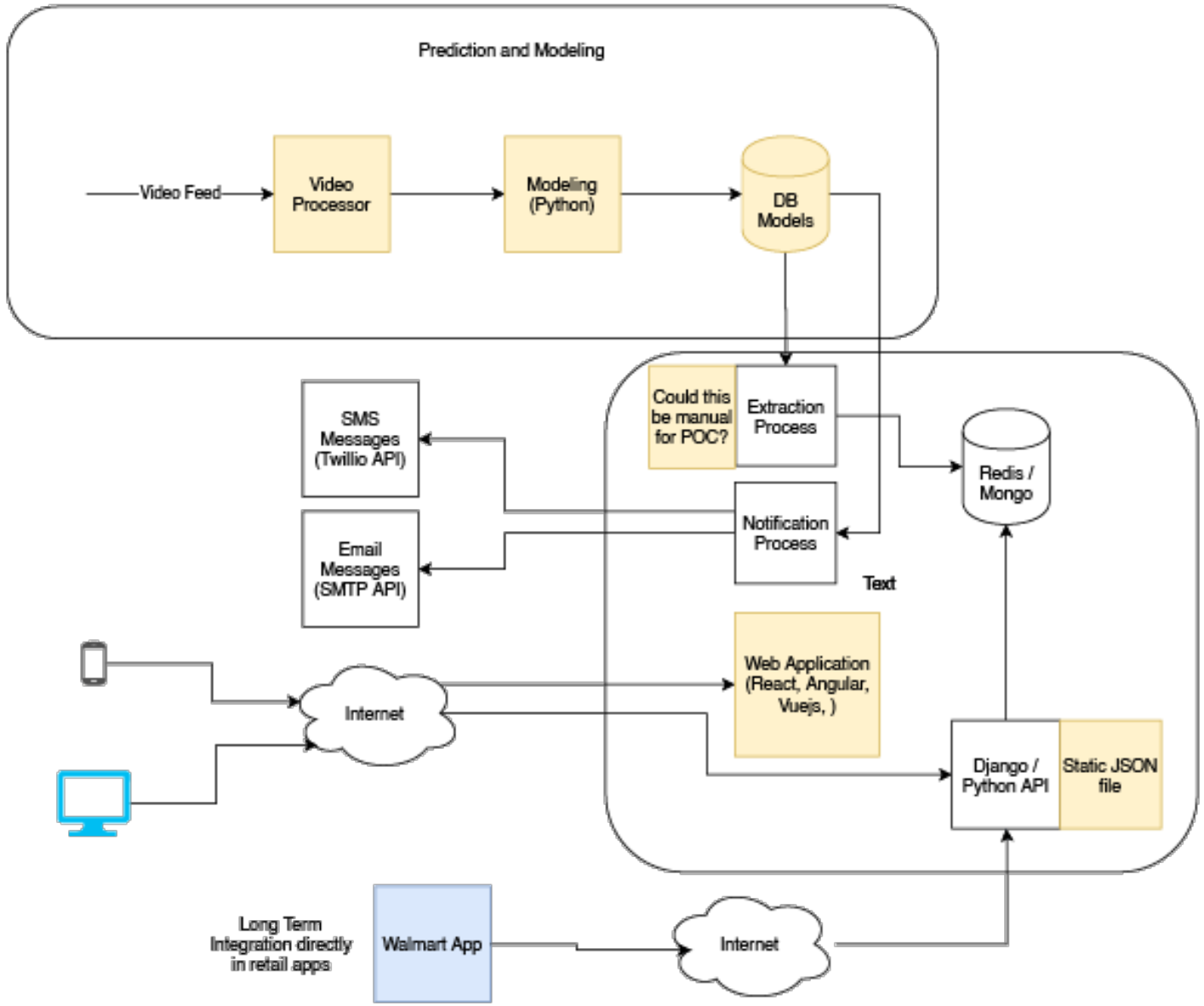
- Booking slots
- Traffic prediction & SMS Alerts
- Pick-up point service
- Community Volunteering

Dis1oin

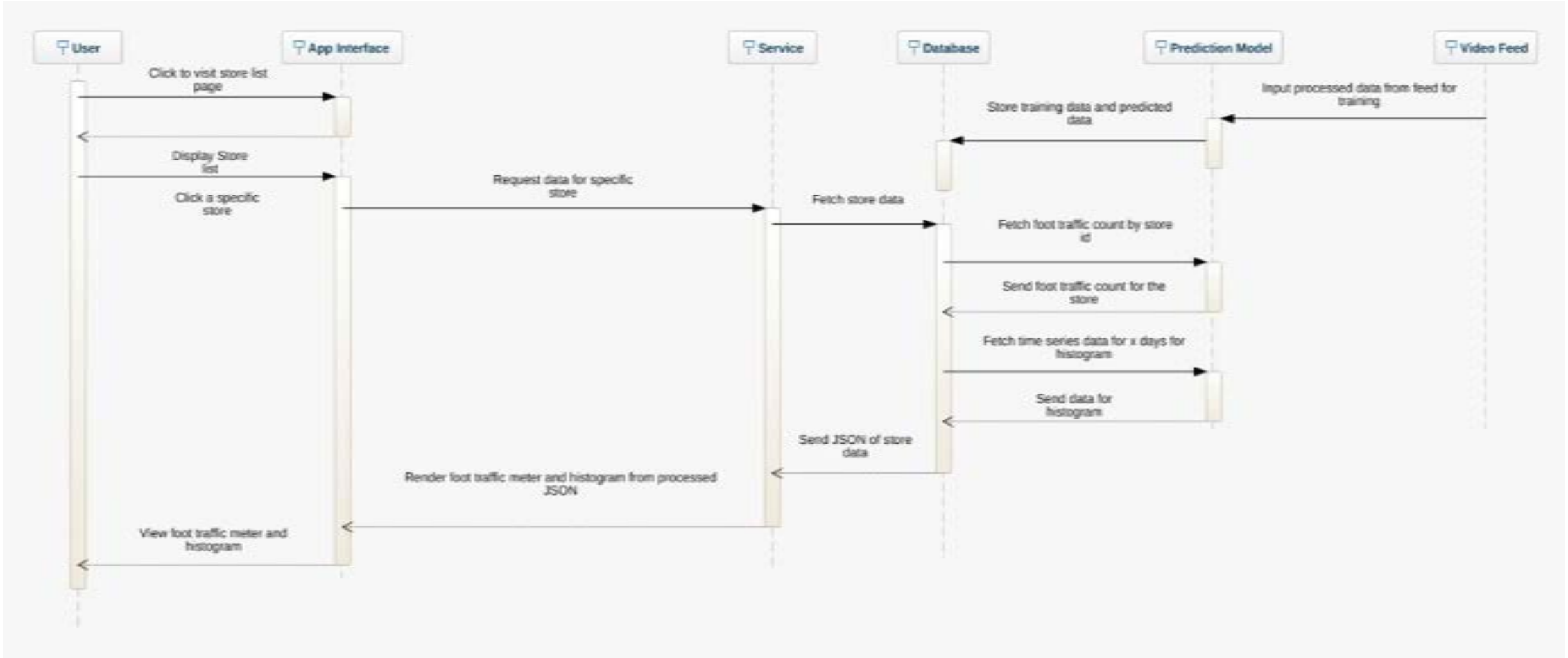
HIGH LEVEL DESIGN ARCHITECTURE



DESIGN ARCHITECTURE



UML SEQUENCE DIAGRAM



HACKATHON TIMELINE

Task	Timeline
Create React App Basic UI	17th June
Prediction API	16th June
Video Feed Processor	20th June
Store list API	19th June
Store data counter for foot traffic meter API	19th June
Time series data for histogram API	20th June
Front end Histogram and Traffic meter (with static JSON)	20th June
Integration with APIs and rendering data on Front end	21st June

WHAT WE ACCOMPLISHED ?

- Build a development team
- Establish our product design architecture
- Finalised on the frontend and backend technologies for development
- Developed the MVP app
- Deployed the MVP on heroku for public viewing
- Streamline our prediction model

WHAT NEXT ?

- Establish channels for getting real time data for the production model
- Looking forward to be accepted by Helpful
- Develop the app to a full product

LINKS

- **React App:** https://powerful-citadel-31978.herokuapp.com/storeinfo
- **Predication:** https://drive.google.com/file/d/1f3-YRikQQyIn_8G7KF4IOfBY1yDG0wNL/view?usp=sharing
- **Design Prototype :** https://xd.adobe.com/view/dac681c5-c530-4abf-7561-27975a78396e-acf7/screen/fdb9a46f-3700-4829-8375-65dd9065c785/?fullscreen

Disjoin

Shop with ease

Limit the number of customers from entering the supermarket, curbing the spread of coronavirus, therefore, flattening the curve and easing the way they shop for goods.

wearedisjoin@gmail.com