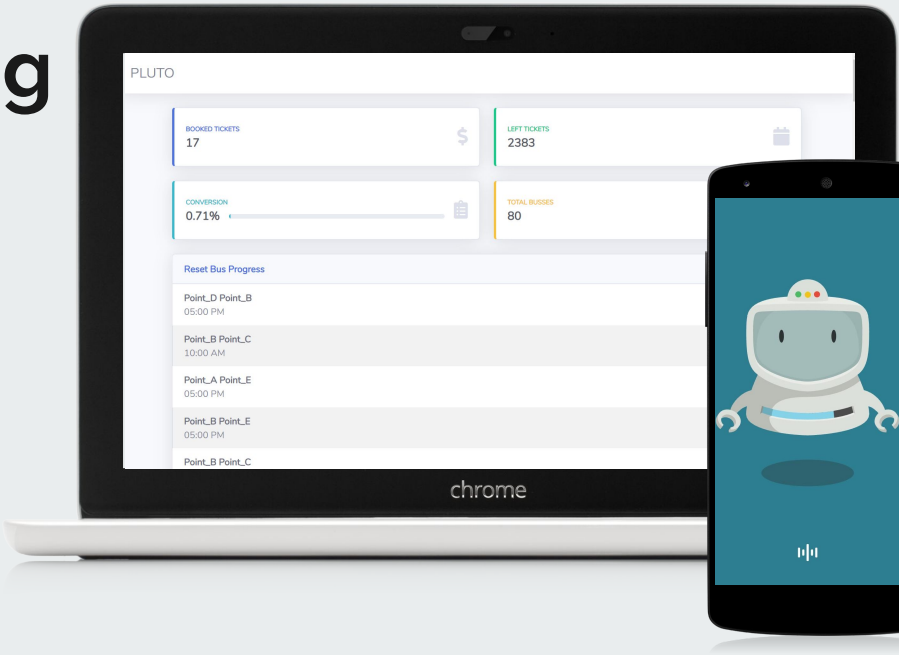
PLUTO - Bus Scheduling with Social Distancing System

Theme : Recovery & Return to Normal



Outline

The Problem

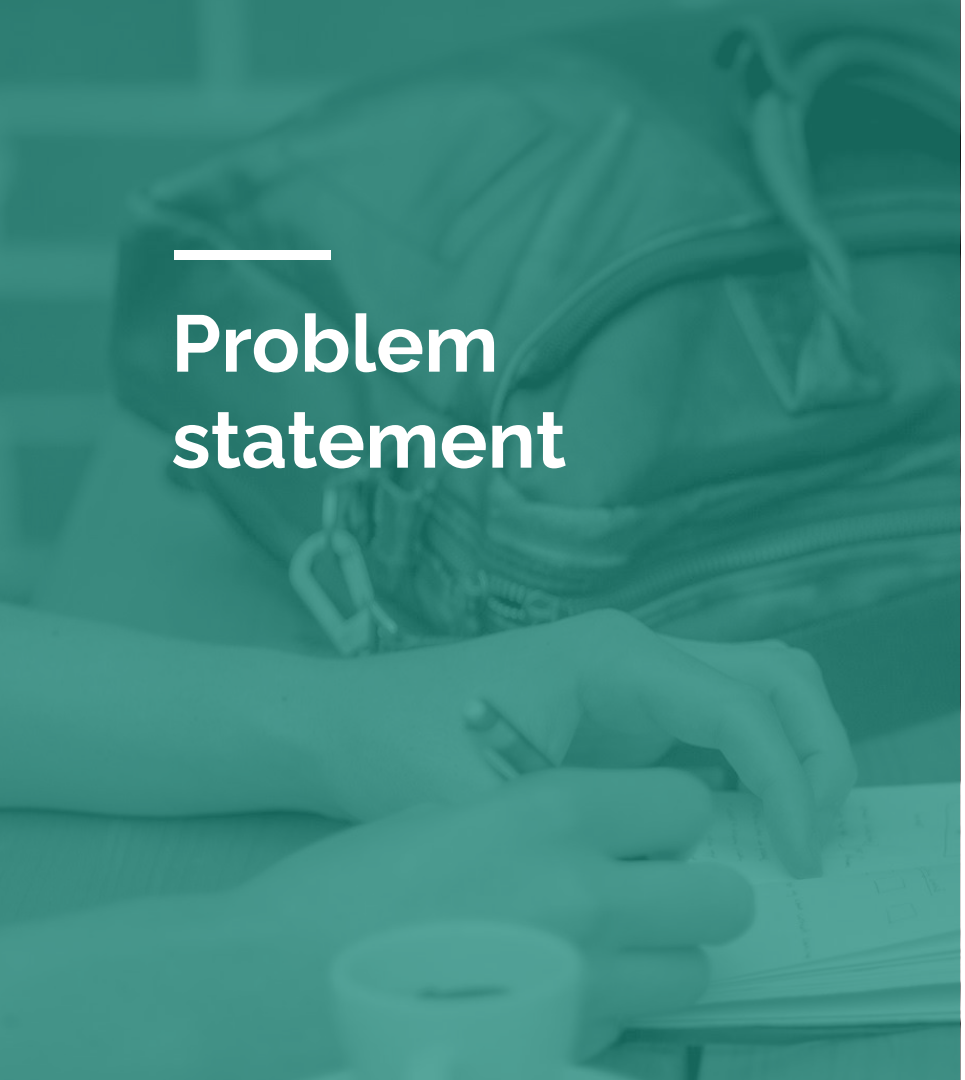
Solution Proposal

UI/UX

Next Steps

Video Explanation and Demo

The Problem



Problem statement

Intelligent Post-Lock Down Management System for Public Transportation

- Public Transportation adversely affected by the **Corona** pandemic making it a catastrophic way to travel!
- Risky to allow the public transportation **without proper mechanism** to maintain the social distancing
- Ensuring the **frequency of buses** so as to properly utilize the capacity with social distancing criteria.
- No estimate of no of people currently travelling.

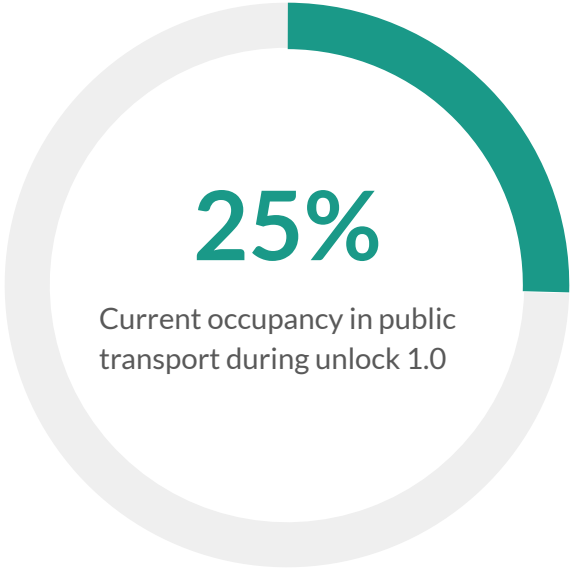
What customers do today

CORONA brought public transport Industry to a STANDSTILL!

- Presently, **ticket booking** for bus is done *manually by the conductor*
- **Possibility of overcrowding** is very high
- Alarmingly **high and increasing covid cases** in our country *demands a better system through which bookings, bus scheduling and enforcement of Social Distancing norms can be done in a more efficient way*

Supporting information

With the occupancy reaching lows every week, companies are experiencing excessive losses and have already trimmed down their strength of buses.



Solution Proposal

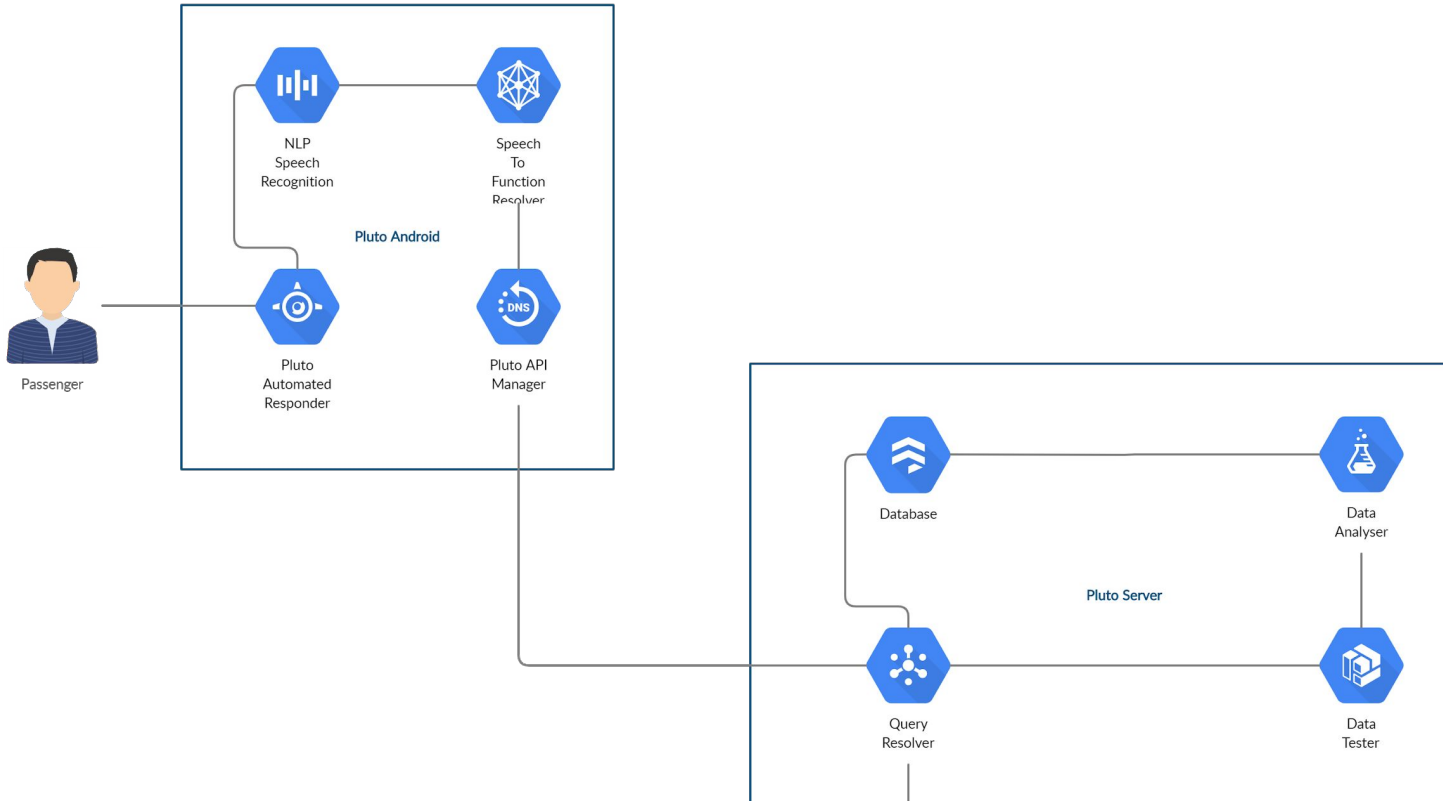
Solution description

1. A **user-friendly app** facilitating online booking of tickets which allot seats for passengers for a *particular time-slot* along with the place of boarding, *thus stopping manual ticketing and reducing the risk of infection*
2. Using Google Voice API to build a **interactive software via Voice.**
3. Our app will **automatically schedule** the timings of the buses as per the demand.
4. **Social distancing** would be enforced via **CCTV inside the buses** and will *alert the conductor via an alarm*
5. As per the daily traffic on our app, we are making daily predictions regarding the demand and the schedule thus making our **model more robust and accurate.**

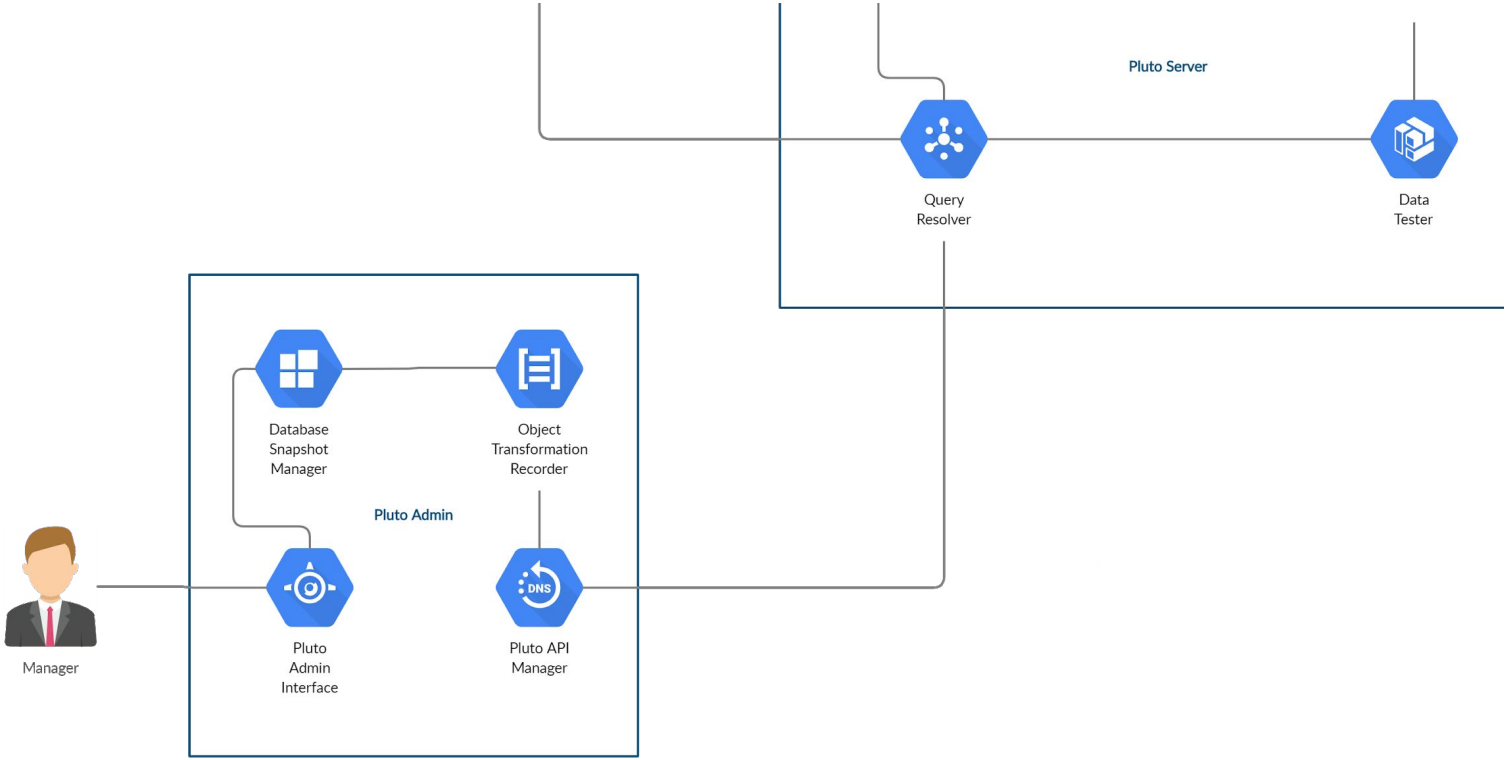
USP

1. **Estimation of the number of passengers in the bus**
2. Interactive voice based software.
3. Unique social distancing enforcing model.
4. Usage of Open Source softwares for development.

Infrastructure

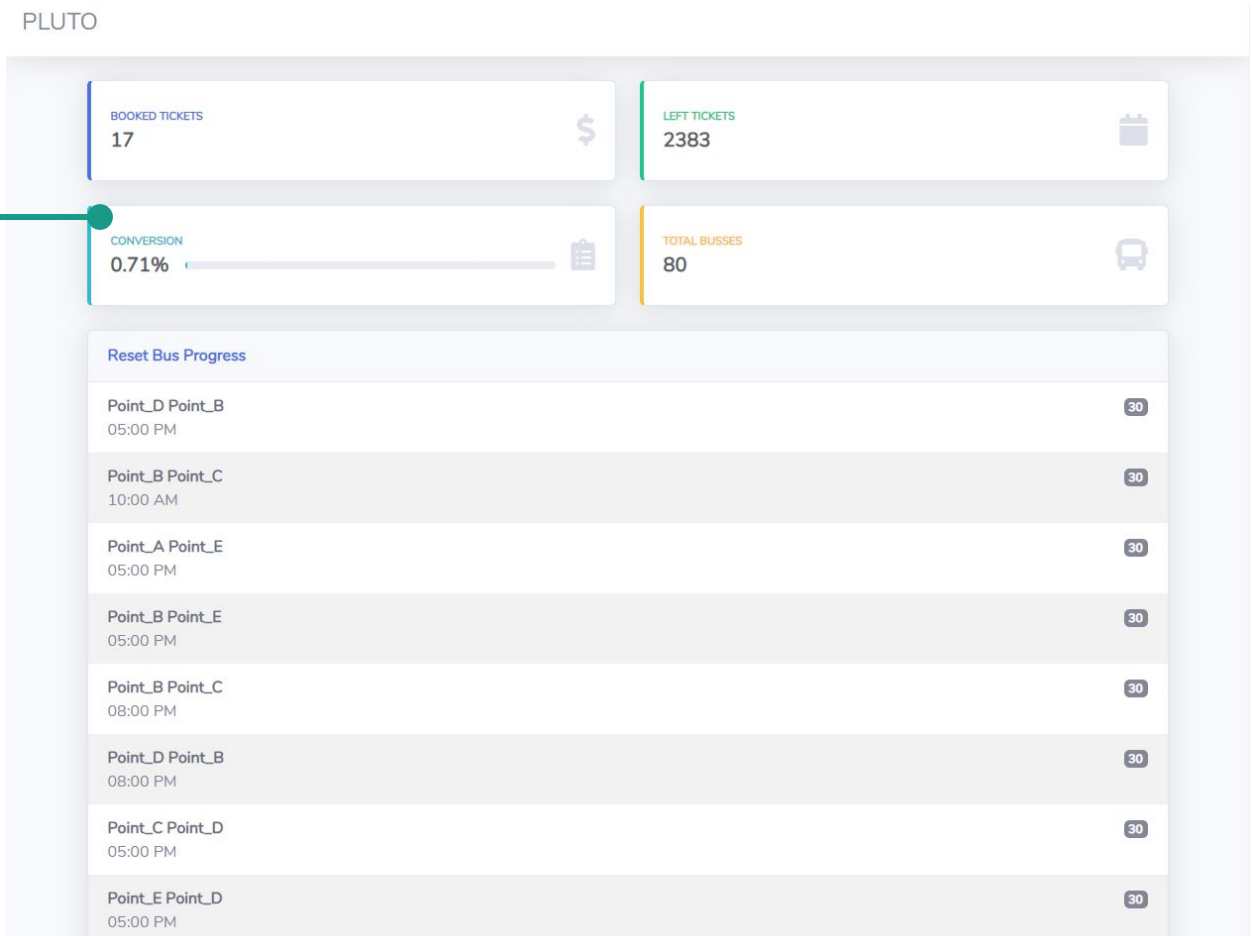


Pluto Stack (Client Side)



Pluto Stack (Admin Side)

Application Interface

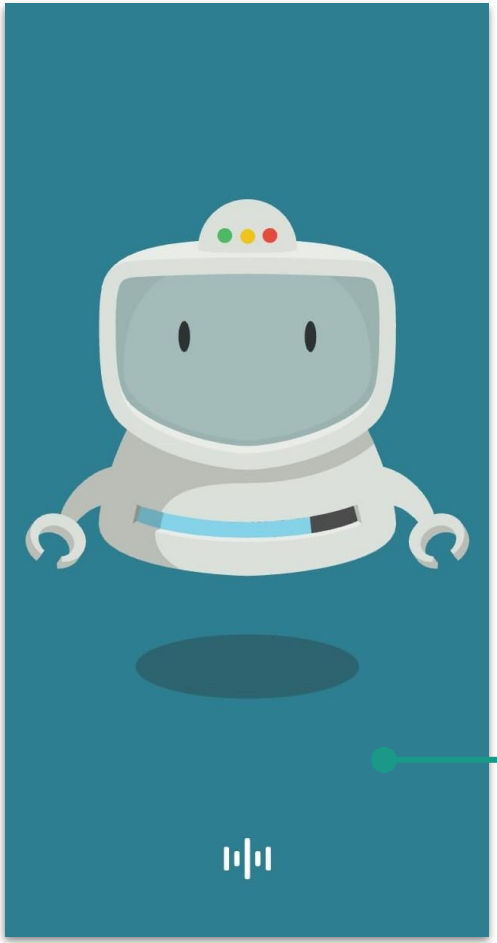


Quick Stats

Admin Dashboard

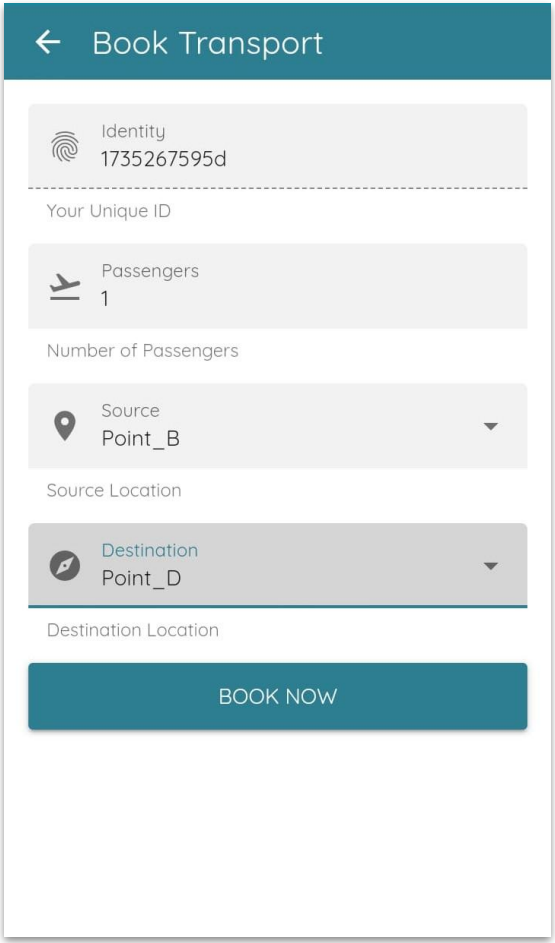
Easy management of busses

Client Bookings



User Friendly Voice Controlled Interface

Android Application



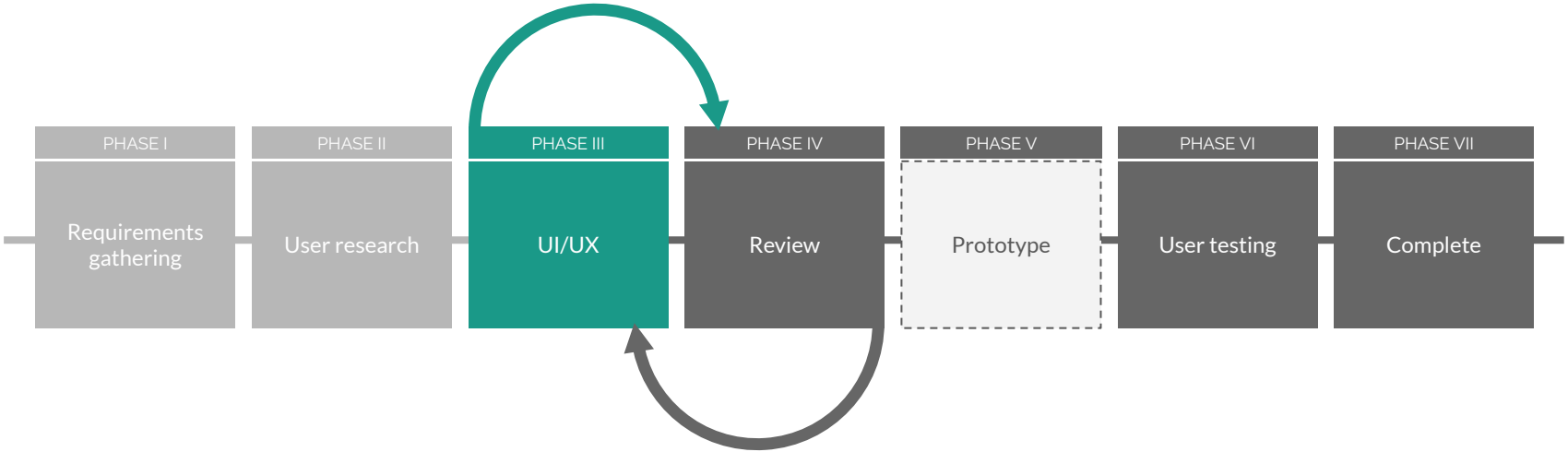
Booking Interface

Future Scope

What next?

- ➔ Integration of our app with existing **real-time bus tracking** apps to coordinate effectively with the demand in real-time reducing demand-supply chain gaps.
- ➔ Integrate with **Aarogya Setu App** which will enable us to track corona positive patients and their history of contact making finding and quarantine of those patients easy and fast
- ➔ The app will also be relevant in the **post-corona scenario** by being an efficient and streamlined method to use public transport.
- ➔ **Real-Time Disaster Management** - In case of any issues with the bus during the route then our system will allot another bus to drop passengers to the destination point.

Timeline


PHASE I
Requirements gathering
PHASE II
User research
PHASE III
UI/UX
PHASE IV
Review
PHASE V
Prototype
PHASE VI
User testing
PHASE VII
Complete

Video Explanation and Demo

Open Presentation and Demo Video Explanation

Open Animated USE-CASE Explanation

Open Github Repository