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Created by
FADHLAN ZAKIRI

For the purpose of
**Redesigning
KRL Access Application**

Design
**Reimagined**

Google

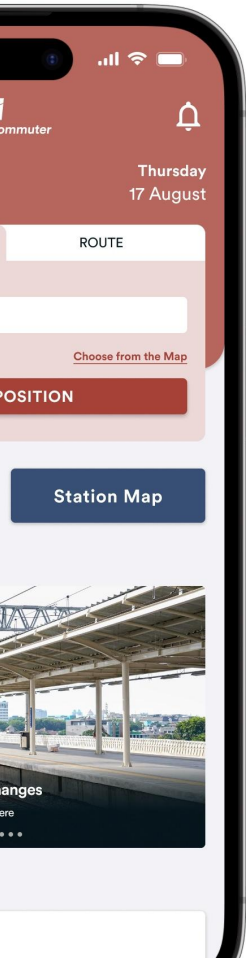# Project Overview

The Product:

KAI Commuter is the operator of Commuter Rail Services/KRL in Jakarta Metropolitan Area. It consists of 5 rail lines. To help commuters track the train, find routes and schedules, KAI Commuter also develops KRL Access application to assist its customers. The app features includes Train Tracker, Schedule Finder, Line Notices, as well as general public announcement.

Project Duration:

Three Weeks (June 2023)
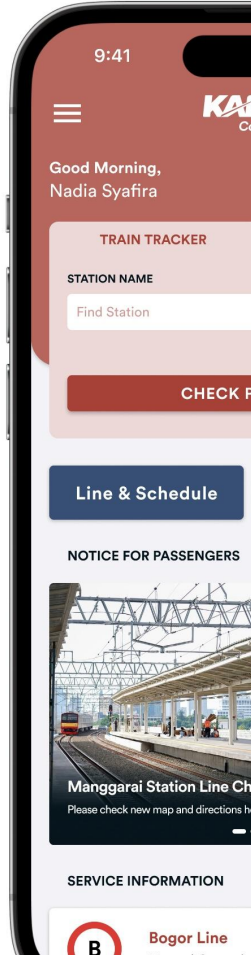
Project Overview

The Problem:

Intuitiveness, Outdated User Interface

The Goal:

Revamping its user interface design, Enhancing Train Tracking & Schedule Finder features

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Project Overview

My Role:

UX designer revamping KRL Access from conception to delivery.

Responsibilities:

Conducting interviews, paper and digital wireframing, low and high-fidelity prototyping, conducting usability studies, accounting for accessibility, and iterating on designs.

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Understanding The User

- User Research
- Personas
- Problem Statements
- User Journey Maps

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User Research: Summary

I talked with my friends and families whose commute with KAI Commuter/KRL within Jakarta Metropolitan Area. Most of them use the KRL Access application to track their train when waiting for it at the Station. The prominent input I've received from them is about how outdated the user interface design is. Some of them also asked me about the possibility of adding a feature to remind their train service. While there are also complaints about the available information on the app, they are eager to see what the new, redesigned KRL Access application looks like.

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User Research: Pain Points

1

Outdated UI

All participants said that the UI Design of the application is outdated and needs to be redesigned

2

Intuitiveness

5 out of 7 participants said that they want to use the application easily, especially for tracking their train and finding the schedule.
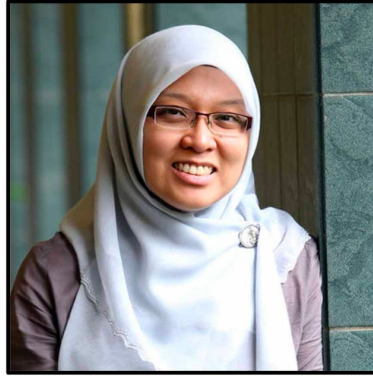
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Persona: **Nadia**

Problem statement:

Nadia is a system analyst and a train commuter who needs to use KRL Access because she wants to be punctual.

Nadia Syafira

Age: 27
Education: Information System
Hometown: Jakarta, ID
Family: 2
Occupation: System Analyst

"I like using trains to commute. It gives me a sense of urgency and the dynamics of life. With the jam on the street, there's also a need to use more public transportation."

Goals
- To use KRL and its tracking app easily
- To board the right train
- To ensure its punctuality

Frustrations
- "It took times to find the train tracker menu"
- "Why does this app seem never been updated ever since I was a student?"

Nadia is an information system graduate from a university in Jakarta. A native of Jakarta, she lives with her husband. Nadia lives in her apartment nearby Duren Kalibata, a KAI Commuter station. During the pandemic, she worked from her house. After three years of the outbreak, her office starts implementing more work-from-office arrangements. Since studying at her campus, she always uses the train to commute. Now, she has a car to go to the office. But she rarely uses it because of the worsening traffic jam in Jakarta and has to take turns with her husband. With little to no transit at a specific station, she arrives at the office faster than using the car. As things get busier, she needs to track the train with the KRL Access application to ensure her punctuality. She hopes that things will get easier while using the app.

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User Journey Map

The map reveals how helpful the new design and feature enhancements will be for people who have similar concerns to Nadia.

Persona: Nadia Syafira
Goal: To track the train location

| ACTION	Finding The Train Tracker Menu	Finding The Station	Track The Train Location
TASK LIST	Tasks A. Open the KRL Access app B. Find the train tracker menu	Tasks A. Click Find the Station B. Choose the station	Tasks A. Choose the desired train formation/number
FEELING ADJECTIVE	• Eager to use the app • Bored with the app design • Tired of the step by step to find the menu	• Feels ready to find the station	• Feels anticipative while checking the train position
IMPROVEMENT OPPORTUNITIES	• Redesigning the app • Bringing key features to the home/front page of the app	• Enabling choosing the station from a map feature	• Simplify the detail • Enabling a reminder for a specific train formation/number

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Starting
The Design

- Sitemap
- Wireframes
- Usability studies

Sitemap

The sitemap represents the condition of the KRL Access application. There are no significant changes since it will retain the existing structure. However, the design will be revamped based on users' inputs.
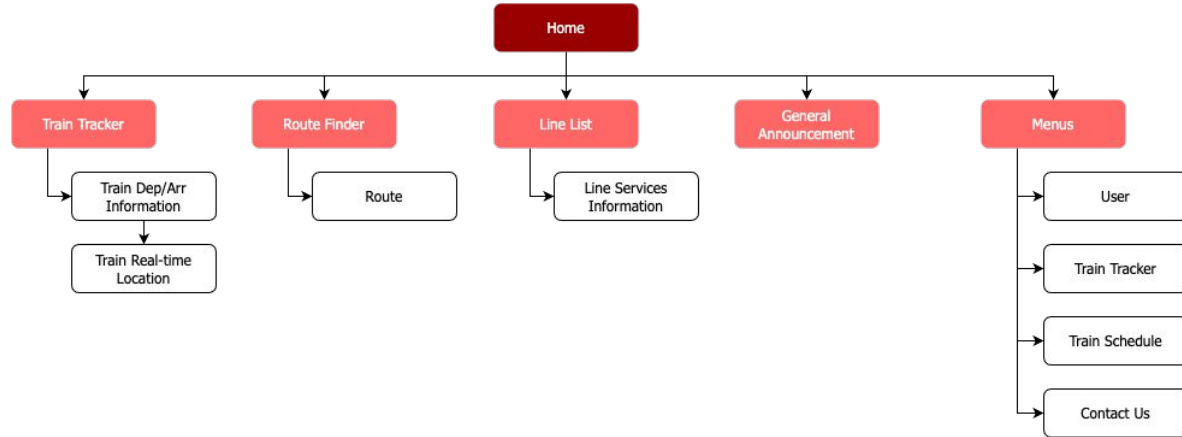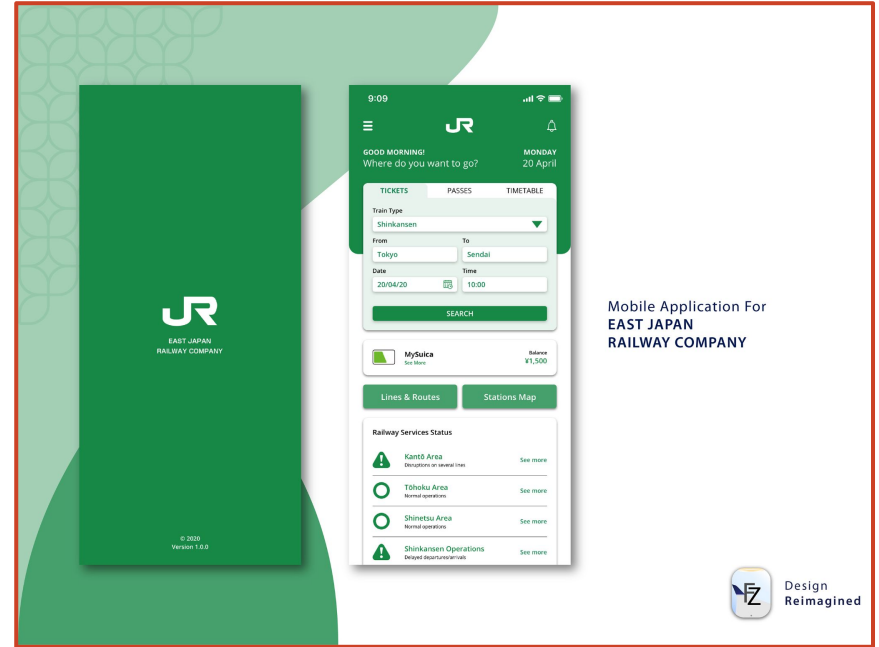
Ist Reference

I took an unorthodox step while redesigning the KRL Access application. Since I will retain most of its existing structure, I will take the existing application as my design reference.
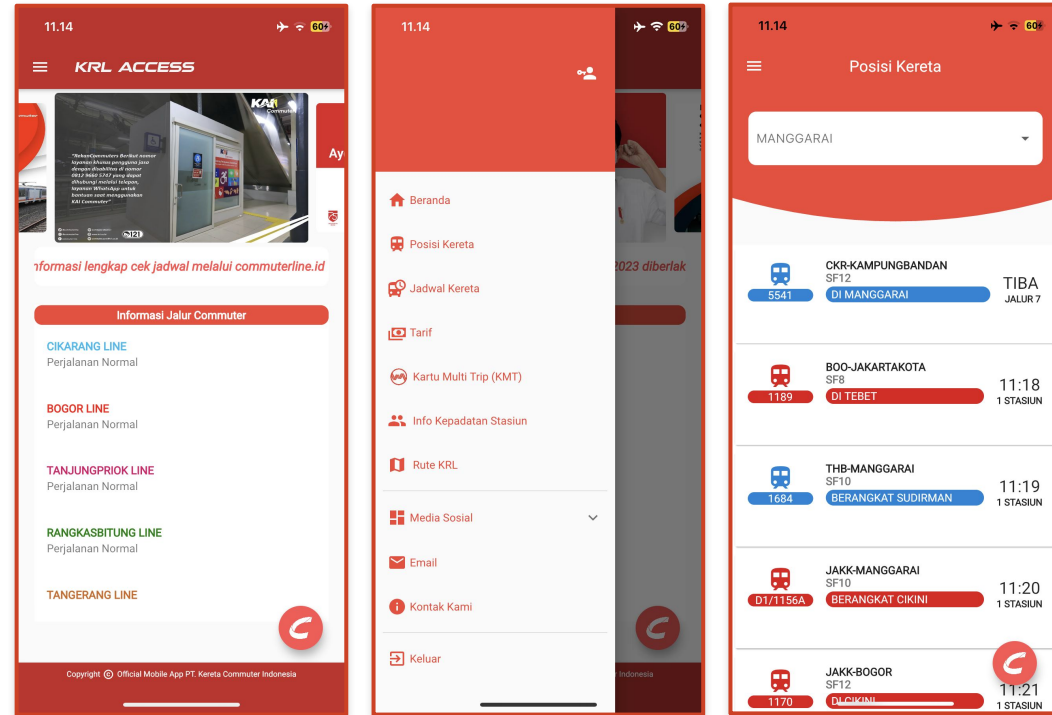
2nd Reference

Apart from the existing application, I will also take another reference from my own works from from late 2020. In that year, I designed a mobile application for the East Japan Railway Company (JR East). This design will be my direct and personal reference to redesign the KRL Access application.

Mobile Application For
**EAST JAPAN
RAILWAY COMPANY**

Paper Wireframes

Taking both references, I drew some essential screens (i.e. train tracker, schedule finder, general information, etc.), when working on the Paper Wireframes for the KRL Access application.
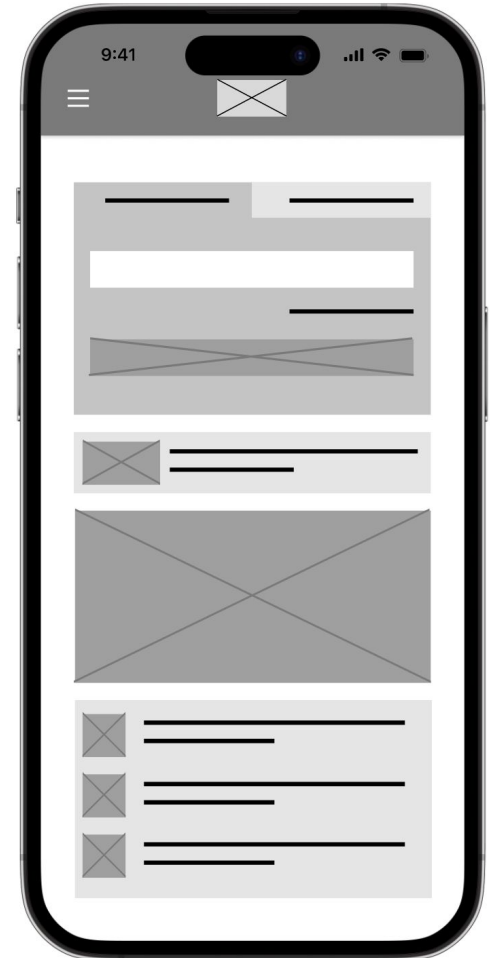

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Digital Wireframes

Following the JR East Mobile App design, I decided to bring two main features of KRL Access (Train Tracker and Route Finder) to the front page since most users use it.

The essential feature is brought to the front to help users reach their goal
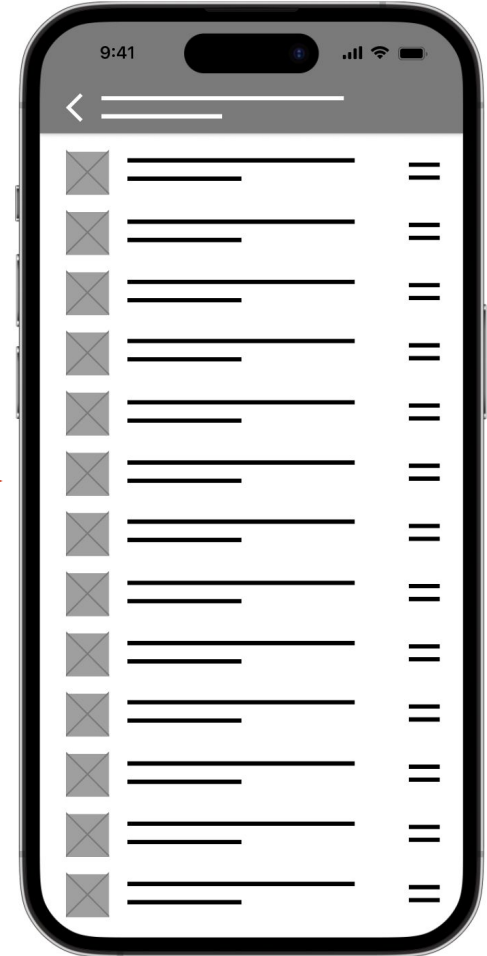
Digital Wireframes

Furthermore, the train tracker and other similar features are being simplified so those will be easy to use.

Simplified Train Tracker Feature

Usability Study: Parameters

Study Type:

Studi Kebermanfaatan Termoderasi

Location:

Indonesia (Online)

Participant:

7 participants

Length:

20-30 minutes

Usability Study: Findings

The usability study was conducted in two rounds. The first round was for the low-fidelity prototype, while the second one was for the high-fidelity prototype. The first study showed few aspects to solve and to be implemented on the high-fidelity prototype.

Round 1 findings

1 Feature Change

2 Accessibility

3 Information Clarity

Round 2 findings

1 Feature Enhancements

2 Adding and Broadening of Train Service Information

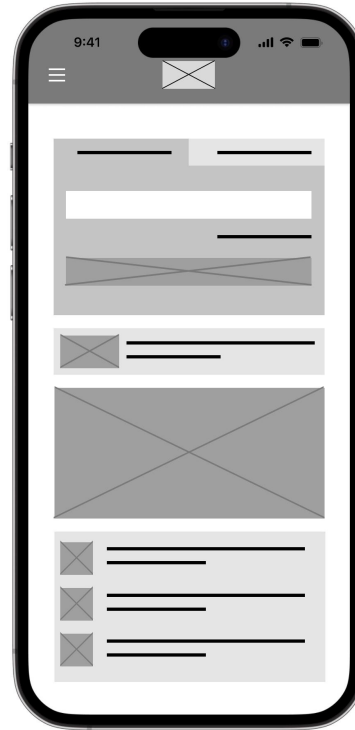Google

Refining
The Design

- Mockups

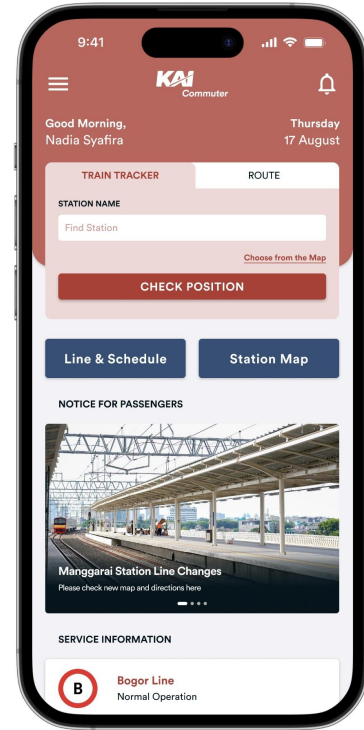- High-Fidelity Prototype

- Accessibility

Mockups

From the beginning, users always complain about the process of finding the train tracker feature, which is a bit hidden. Hence, that feature is brought to the front, in both Low and High-Fidelity Prototypes.
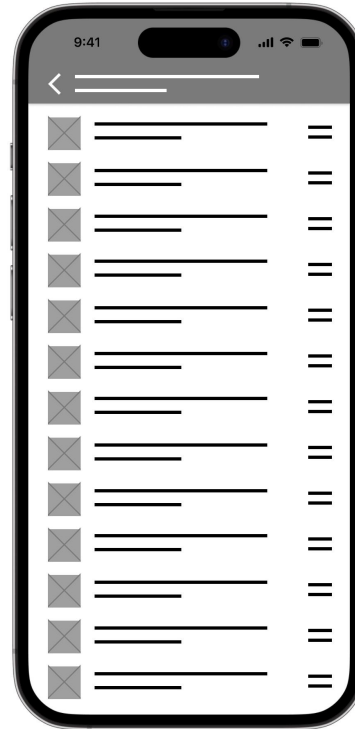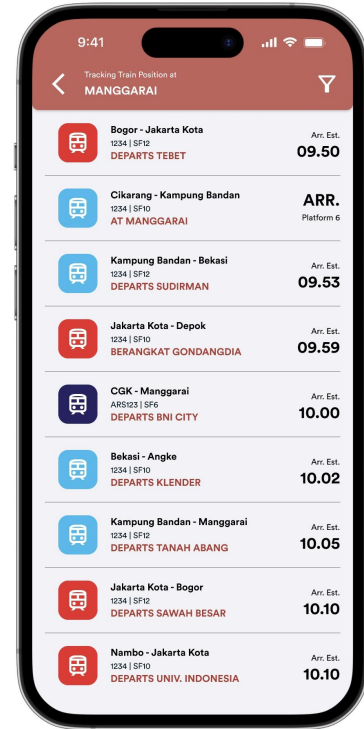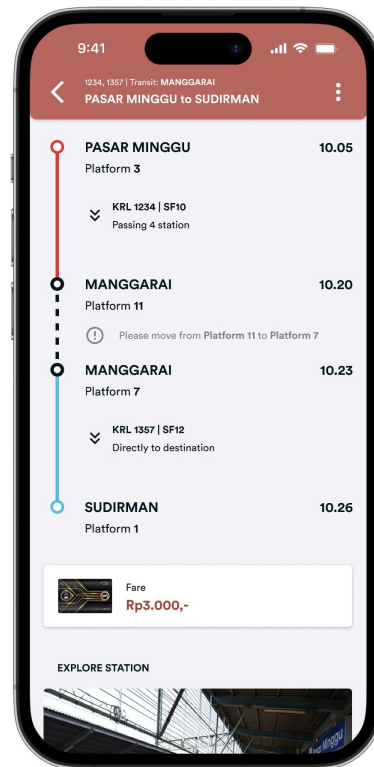
Low-Fidelity

High-Fidelity

Mockups

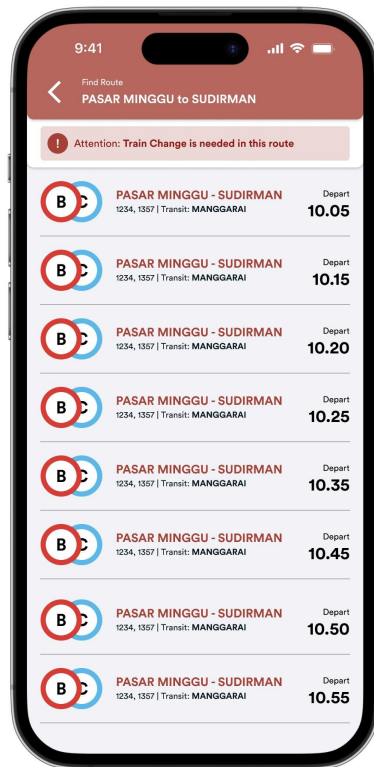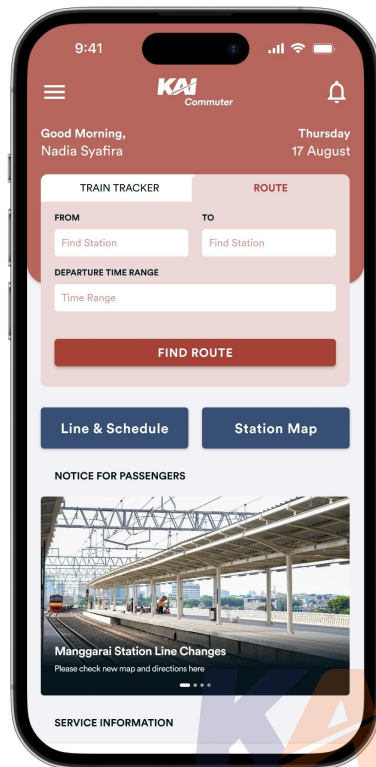The output of train tracker feature get redesigned to refresh the interface.

Tracking Train Position at
MANGGARAI

| | Bogor - Jakarta Kota
1234 \| SF12
DEPARTS TEBET | Arr. Est.
09.50 |

| | Cikarang - Kampung Bandan
1234 \| SF10
AT MANGGARAI | **ARR.**
Platform 6 |

| | Kampung Bandan - Bekasi
1234 \| SF12
DEPARTS SUDIRMAN | Arr. Est.
09.53 |

| | Jakarta Kota - Depok
1234 \| SF10
BERANGKAT GONDANGDIA | Arr. Est.
09.59 |

| | CGK - Manggarai
ARS123 \| SF6
DEPARTS BNI CITY | Arr. Est.
10.00 |

| | Bekasi - Angke
1234 \| SF10
DEPARTS KLENDER | Arr. Est.
10.02 |

| | Kampung Bandan - Manggarai
1234 \| SF12
DEPARTS TANAH ABANG | Arr. Est.
10.05 |

| | Jakarta Kota - Bogor
1234 \| SF12
DEPARTS SAWAH BESAR | Arr. Est.
10.10 |

| | Nambo - Jakarta Kota
1234 \| SF10
DEPARTS UNIV. INDONESIA | Arr. Est.
10.10 |

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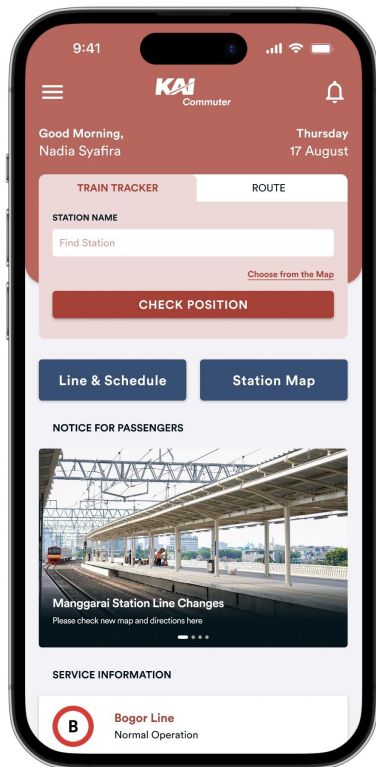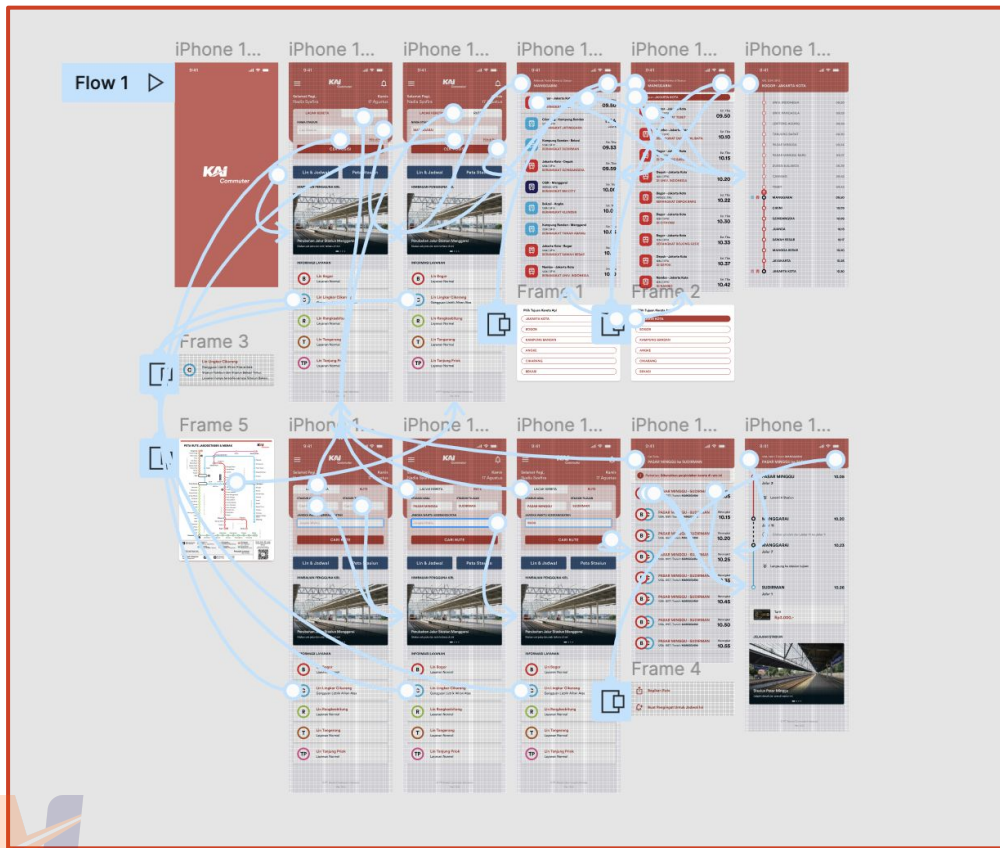Google

Key Mockups

High-Fidelity Prototype

The new High-Fidelity Prototype shows the enhanced, better and clean main flows, from the train tracker to route finding features.

Accessibility Considerations

1

Considering User's Freedom of Control and Information clarity in every flow in the application.

2

Using proper size of clickable objects to make those easy for users to reach their goals

3

Ensuring that users' have various options (access) to reach their goals

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Going Forward

- Takeaways
- Next Steps

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Takeaways

Impact:

In general, the redesign of KRL Access Application has ease the user's goal to find the train and route.

"It is way better like this. I don't have to go to the menu to track my train. Also, I like this route finding feature. It's a good addition."

What I learned:

With users input and my personal design reference, the idea to redesign this app and enhancing its feature is on point. Furthermore, usability studies, critics, and suggestions are needed to iteratively develop this application.

Next Steps

1

To develop ticketing and payment feature, integrating the app with other eWallet or Bank apps, as well as broaden the available information based on the user's need.

2

Conducting more studies to address another needs and features.

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Let's Connect!

Thank you for viewing and reviewing my work!

For more information, reach me at:

https://www.linkedin.com/in/zakirifadhlan/

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