

MAGDALENA PIWOWAR
portfolio 2022



Moovit

Student Project

Moovit

How to help blind people navigate through public transport?

As UX Bats team, during our postgraduate studies of User Experience and Product Design, alongside with our partner Miquido, we were required to create a digital solution that would assist people with visual impairment in safe navigation around the town. We were supposed to combine an existing app Moovit and experiences gathered during our work with the visually impaired.

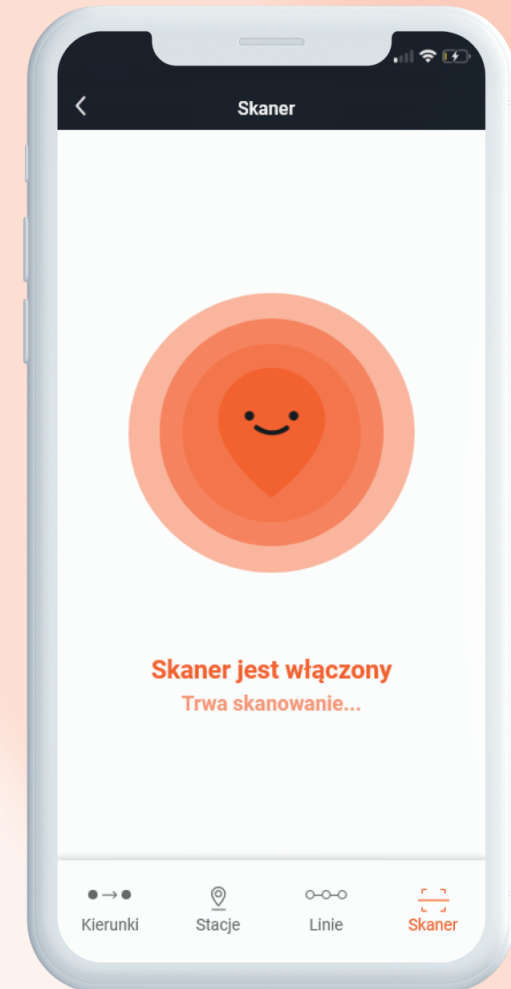
PARTNER



TEAM



BASED ON





01

Introduction Challenge

Through vision we receive over 80% of information about the world surrounding us. How do blind people deal in the public space? What tools does the contemporary world provide them with?

Our team was assigned with a difficult task of creating a digital product for people with visual impairment that would help them in navigating around the town. We had no idea how much knowledge we would have to gain before we could even start designing!

02 Discovery Research

On the market, there are plenty of apps that facilitate the lives of those with visual impairment, but these apps often fail due to:

- lack of a defined business model
- lack of consistency in municipal infrastructure: pavement solutions, tactile pavings, directional or guidance tactile and wayfindings
- barely non-existent legal regulations regarding standards for, eg. paths for the visually impaired

10%

**of society has vision
problems**

90%

**of the visually impaired
have low vision**

66%

**of the blind walk out of
the house every day**

03 Learn Interviews

The initial phase of work on the product was research with the potential users. The theme of the visually impaired getting around the city was an absolute novelty for us, but after 25 hours of conversations we had an almost clear vision of our product (or we thought so back then!).

We have singled out a few solid facts from the conversations we had carried out. Blind people do not want another app aimed only at the visually impaired. They want inclusive products they could use on their phones. They do not want additional devices that make it harder to get around the city. Additionally, they very much welcome any facilities in the public space.

After this phase of research, we decided to narrow down the target group to just the blind people. People with visual impairment have completely different problems.



03 Learn Insights



"I feel dots under my legs - I know I'm walking onto the road"

"I don't want to install another app!"

"For me, my eyes are replaced with people. Either people or a smartphone...".

"Designing for smartphone is the most universal, and other devices in your pocket are problematic".

03

Learn
Problems

We singled out a group of problems related with travelling using public transport by blind people and we focused the succeeding work on those problems.



Identifying the vehicle number

A blind person does not always want to ask other people. Not always is there anyone they could ask. They want to have a tool that would allow them to recognize the number of a vehicle on their own.



Double stop

A blind person is not able to see whether behind an upcoming bus there is another one, one they actually want to use. Another bus will just go away and they will have to wait for the next one.



Identifying the stop

In Cracow stops do not have unique names. For instance, there are 10 bus stops named 'Rondo Mogilskie'. A blind person wants to be sure they are waiting at the right one.

06

Measure Research

Conducting reliable research was very difficult due to the lack of support of prototypes for screen readers.

We created a prototype in Adobe XD - the app enables to play prerecorded audio. In order to conduct research, we recorded voice notifications with a speech synthesiser and created a dashboard to manage them. The blind was using the standard Moovit app during the tests and we played the notifications at specific moments.

The place of research was always a pavement or a bus stop. We had a bluetooth speaker which our respondents could hang on their necks or hold close to the ear.

We even created elements of Service Design! We made a prototype of Safe Zone out of cardboard and bottle caps, which could be felt with a white stick and feet. We built a bus from a cardboard box to simulate its arrival to the bus stop!



Measure

Conclusions

Users want freely turn the notifications on and off



We abandoned the initial idea of certain notifications coming up automatically for the first 2 times after updating the app.

Some users need a very short instruction and others a longer explanation



Basic version was expanded by more detailed function descriptions for the ones who need them ("Learn more" button on the screen)

Notifications are too long! Users want concise information



We have rewritten all notifications, shortening them to maximum, changing the vocabulary.

Users opinions divided: is distance or time more important in notifications?



We have left this option open and changed time and distance ranges (topic for another iteration - what works better for the user)

04 Ideation Pivots

User Journey Map, Value Proposition Canvas and the Eisenhower Matrix allowed us to come up with three ideas for products that may solve problems of our users. Unfortunately, two of them turned out to be too big to implement and they did not respond to one of the major problems of the blind - having to install another app on their phone. After a few pivots, we finally decided to redesign the Moovit app, which blind people often use during their travels around the city.

1

Journey planner

Too big a product to implement in such a short period. Not applicable to be an MVP.

2

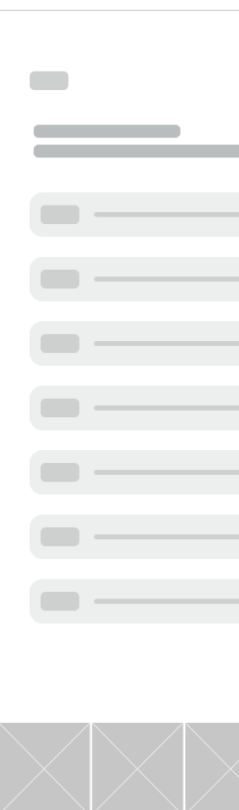
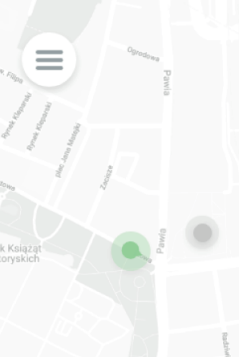
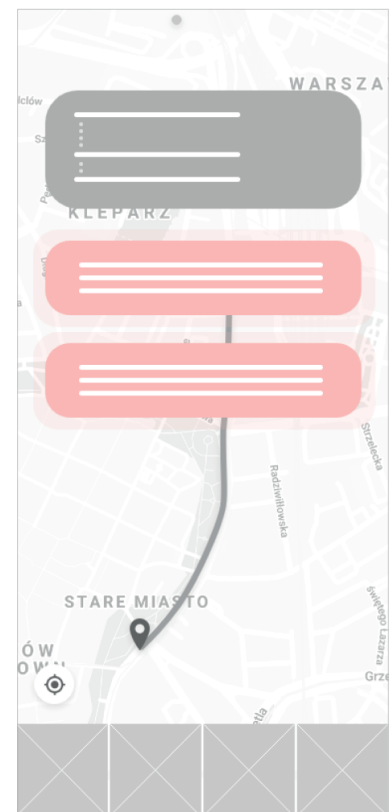
New timetable app

Blind people do not want another new app, that they have to install and learn how to use.

3

Redesign of mMPK app

Unfortunately, the iOS version is missing, and iOS is a system that is most commonly used by blind people.

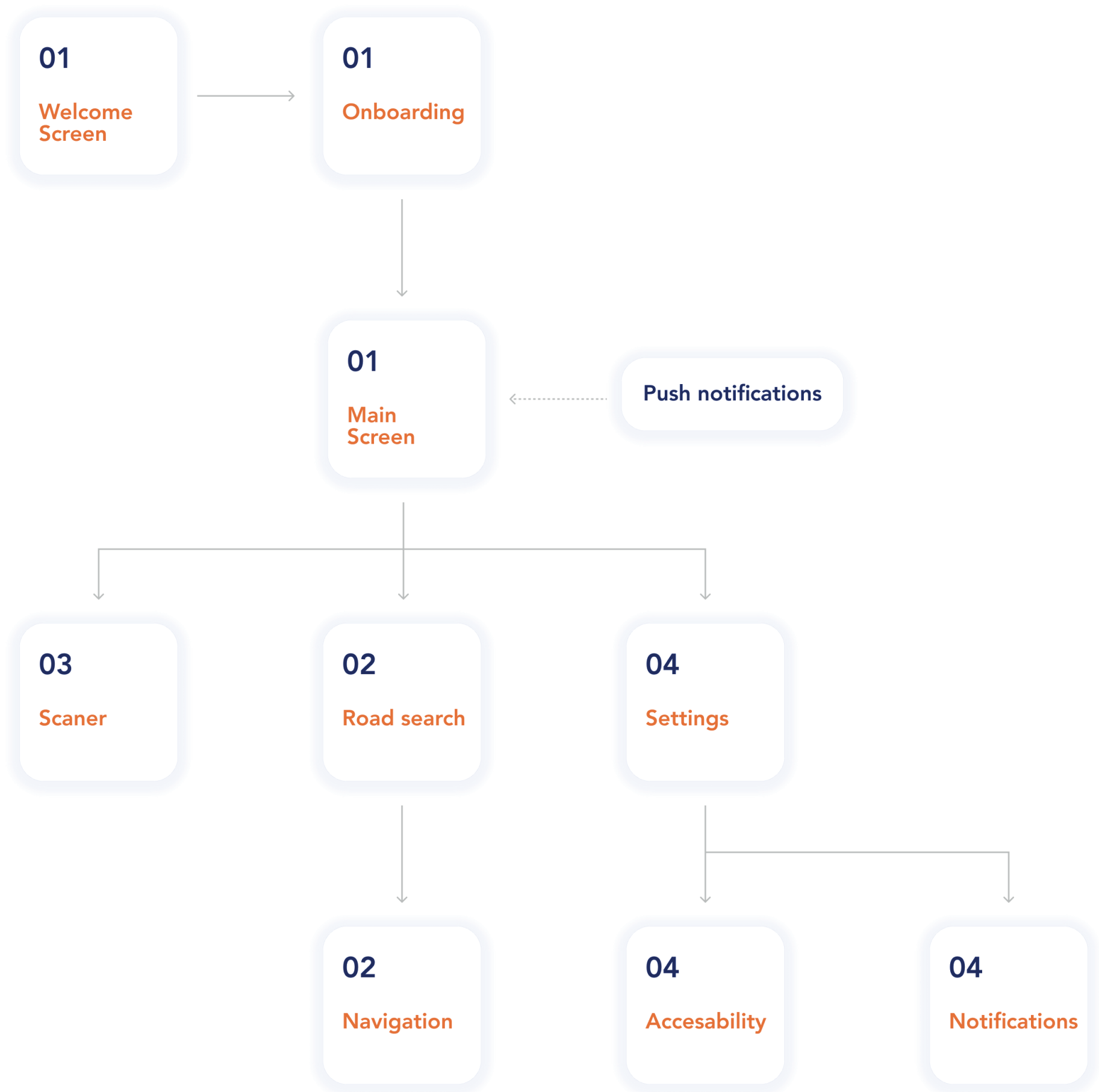


04

Ideation

User flow

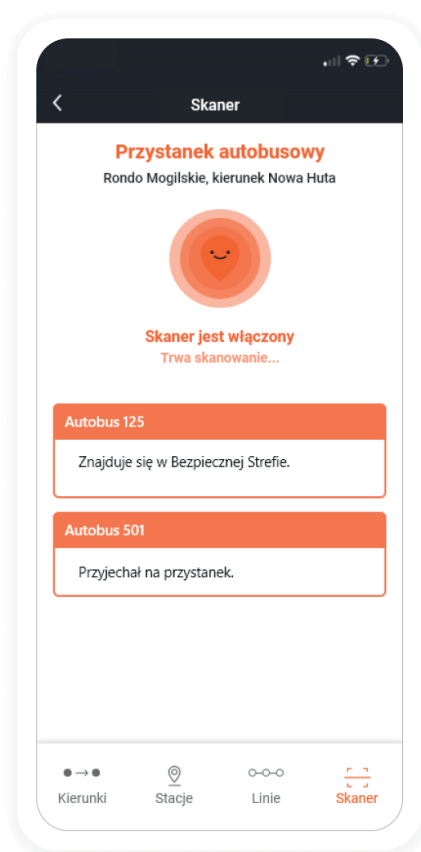
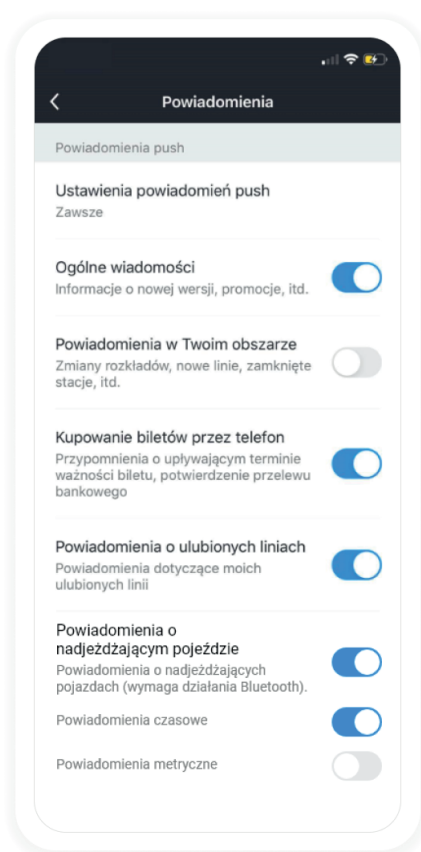
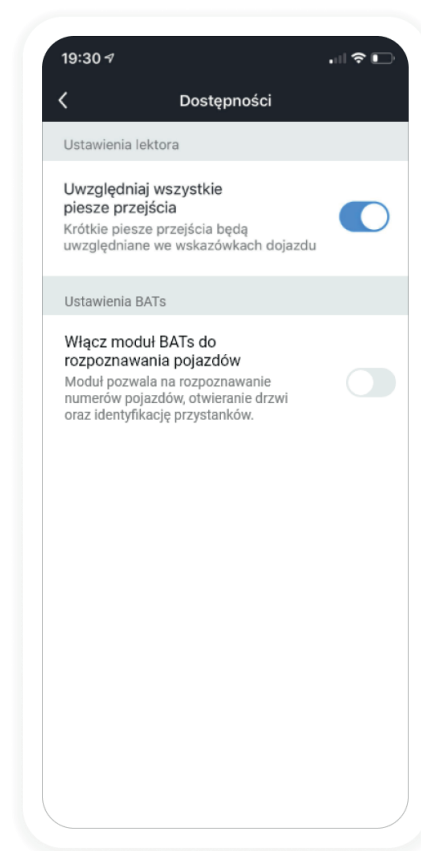
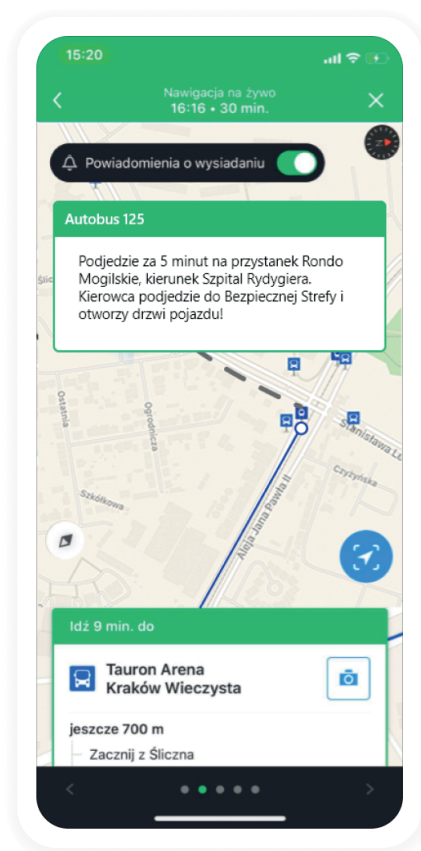
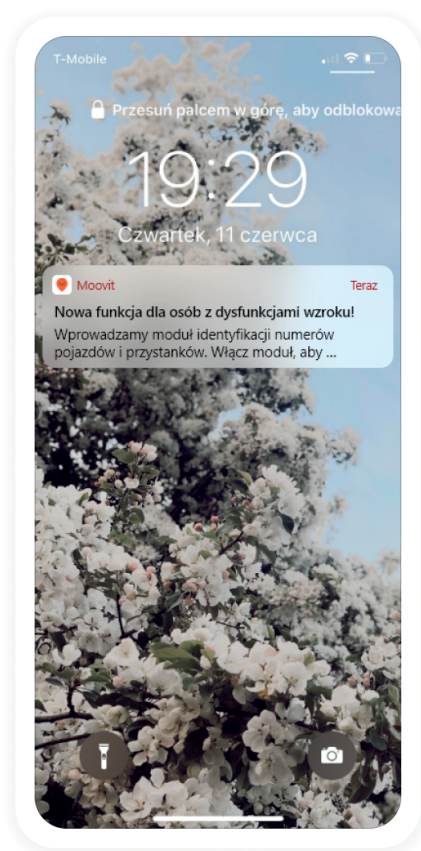
After analyzing the entire architecture of the Moovit app, we decided to map it out and add a few features of ours, expanding the scope of the app. It helped us identify where we could implement new functionalities.



05 Design

Final design

Basing on the mapped-out flow and wireframes, we have created the final design of the Moovit app. We added push notifications, additional settings dedicated to blind people and a scanner of vehicles that are nearby. Additionally, we enriched the whole process with onboarding. Thanks to it, the user could find out about the new functionalities of the familiar app and that at every stop there is an element of service design awaiting them - safe zone.





Comarch

Asset Tracking

01

INTRODUCTION

Comarch Asset Tracking

Comarch Asset Tracking is a cloud-based solution that enables determination of location and monitoring of tools, vehicles, and people.

By using Internet-connected devices and a dedicated application, it is possible to track them indoors and outdoors.

I was UX/UI Designer from the beginning of the project. Together with the Discovery Team, consisting of the Product Owner, Product Manager, Frontend and Backend Developers, we jointly created the requirements for the product.

In Q3 2022 we released version 1 of the asset tracking product, at the moment we are testing usability on functionalities.

I was responsible for:

- UX research: surveys, interviews, usability testing
- conducting workshops with Discovery Team
- conducting workshops with Lead's
- co-creating requirements based on Discovery Processes with Product Discovery Team
- developing wireframes, flowcharts, design specifications and documentation
- developing UI design based on Comarch Design System

02

UI DESIGN

Style Guide

Colours



Dark Blue
#283593



Lilic
#4A5DE2



Pale Gray
#F8F9FA



Light Lilic
#F8F8FF

Typography

Aa

Roboto

Regular • Medium • Bold

Komponenty



Analytics



Asset 1

Floor I SSE6



Asset 4

Floor II SSE3



Show analytics



Asset count in SSE7

Rule type

Asset count in zone

Location

Comarch, SSE6, Zo...

Condition

43



Awesome!



Drag & Drop or Browse

LAST EVENTS

RULE TYPE

RULE NAME

Asset count in zone

Asset count in zone

Time limit

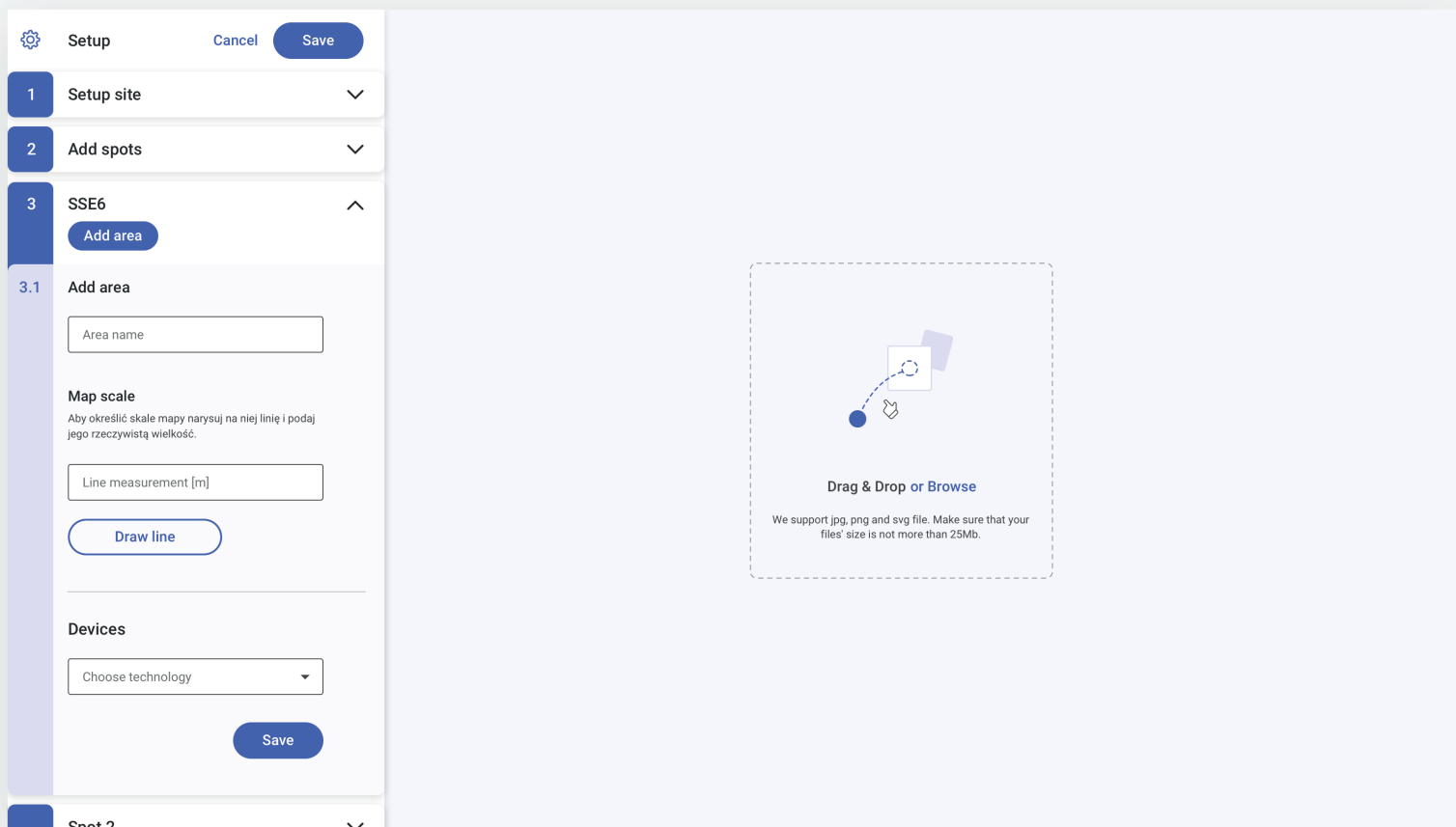
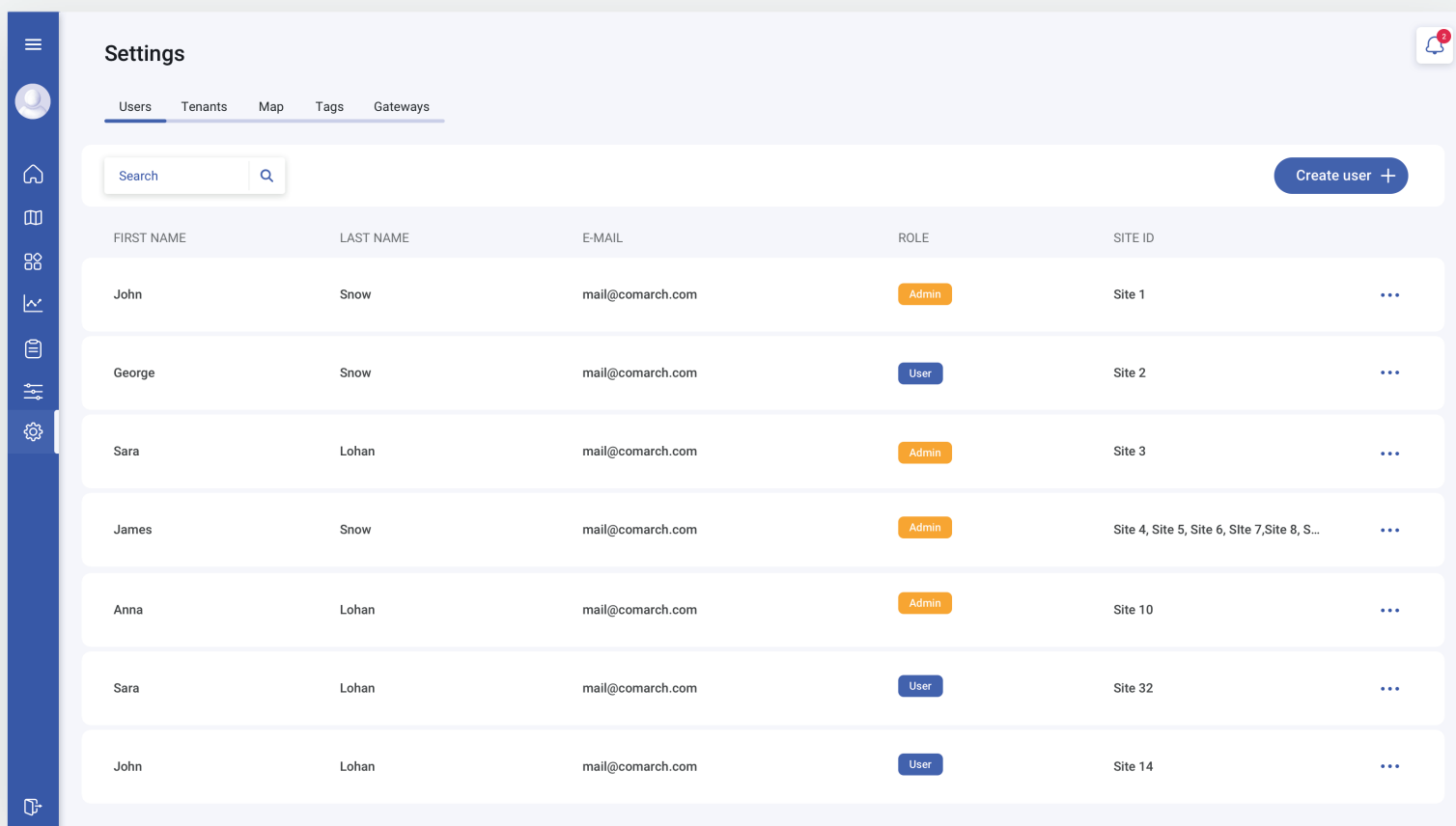
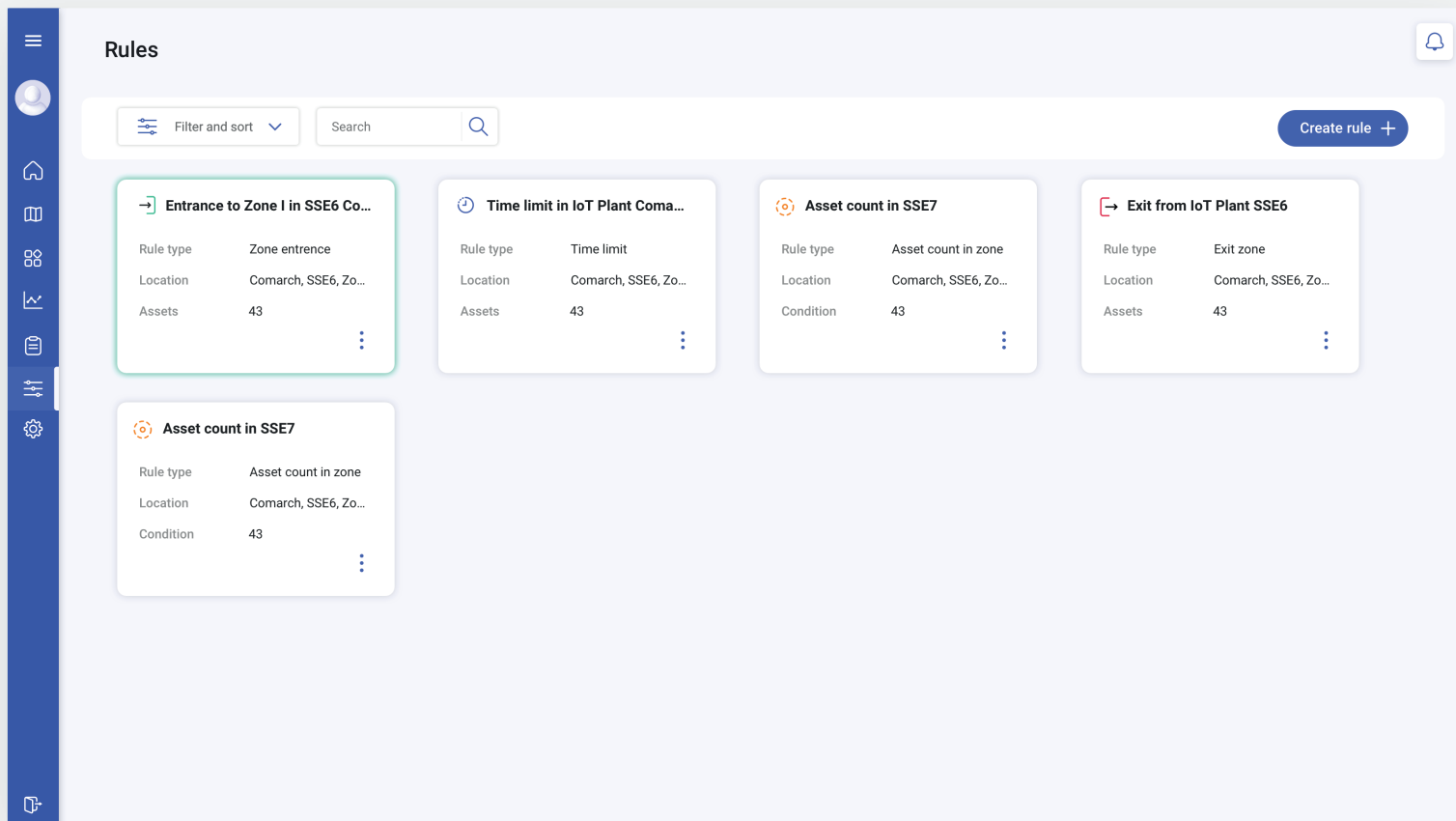
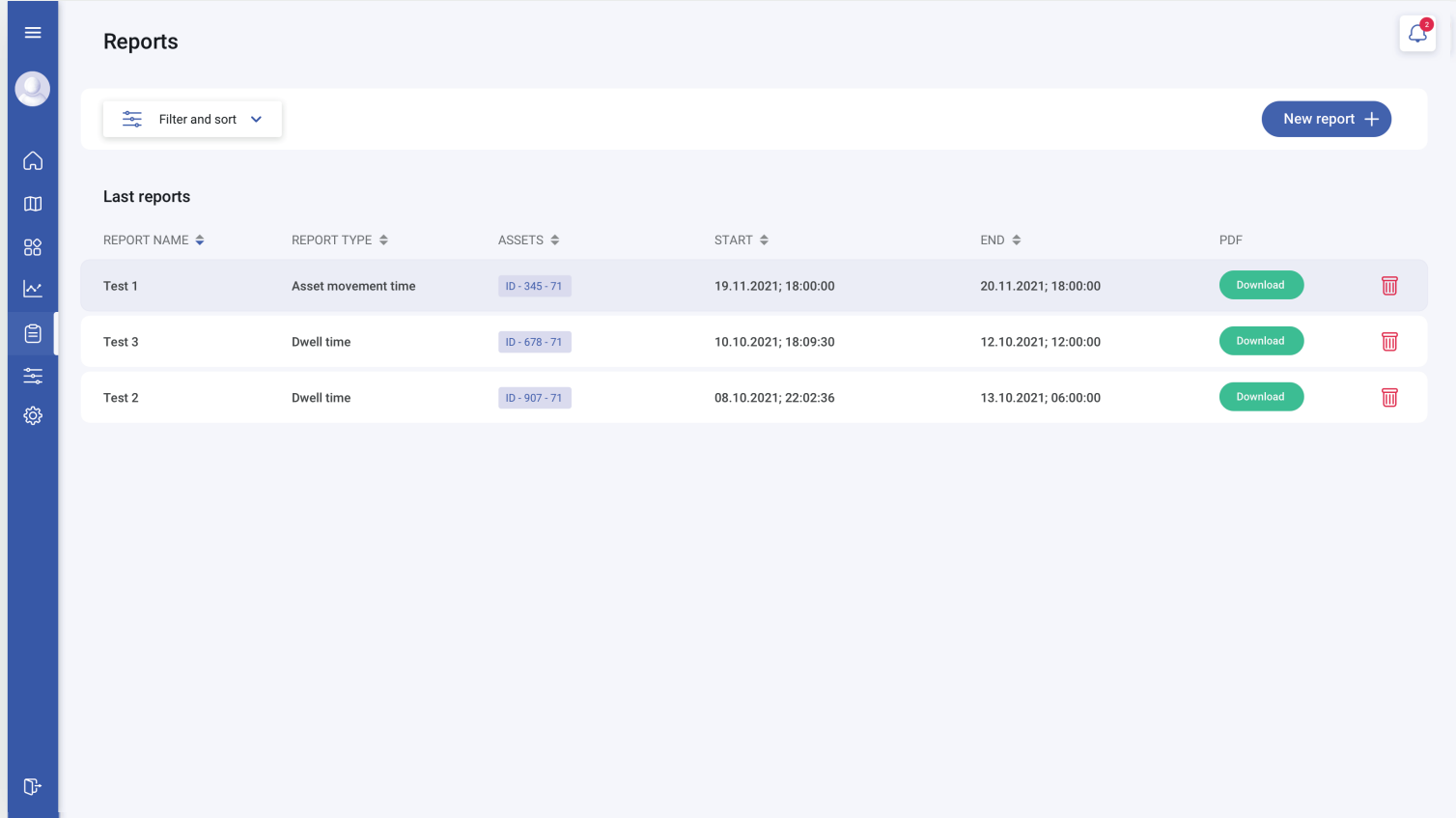
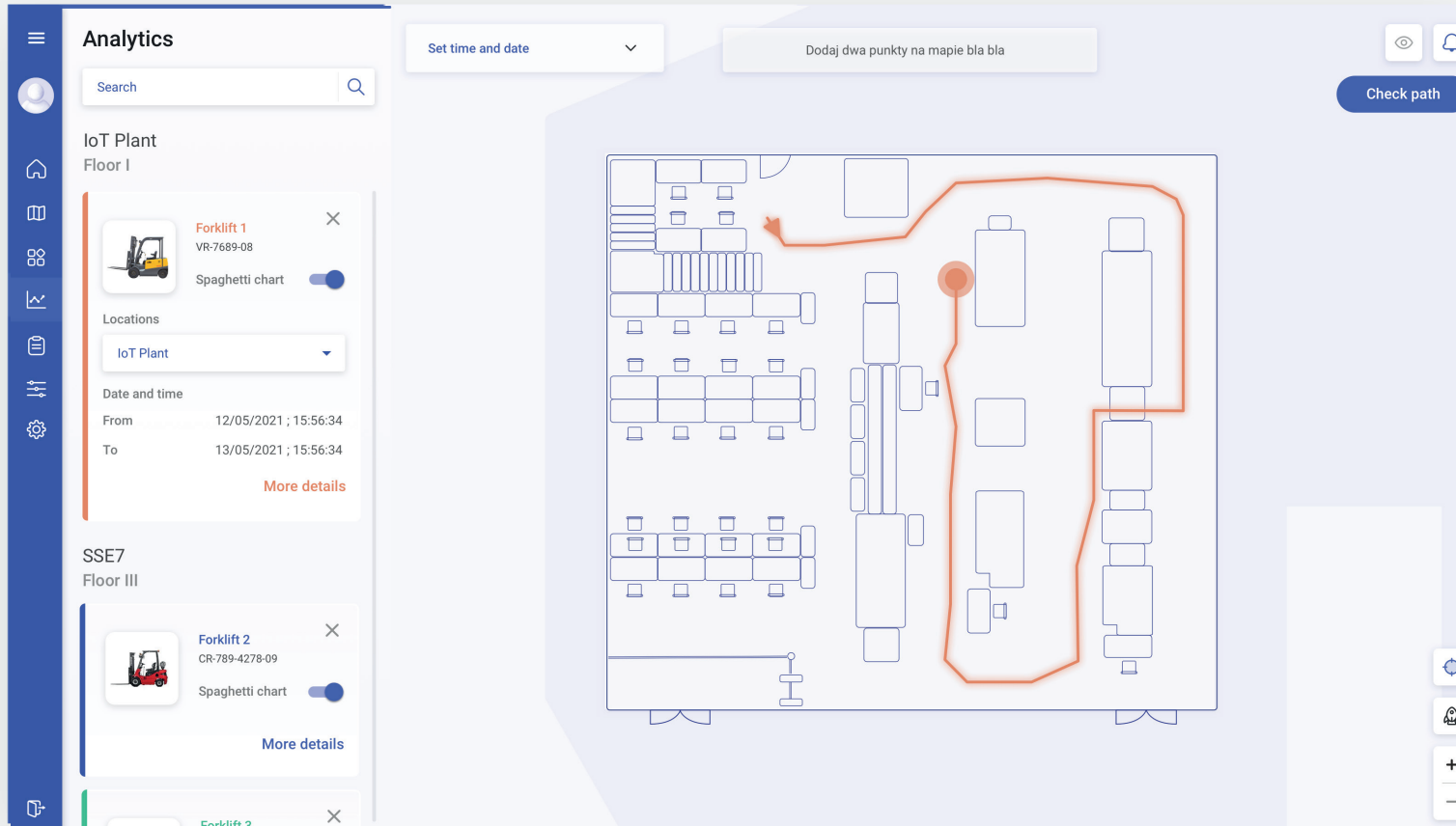
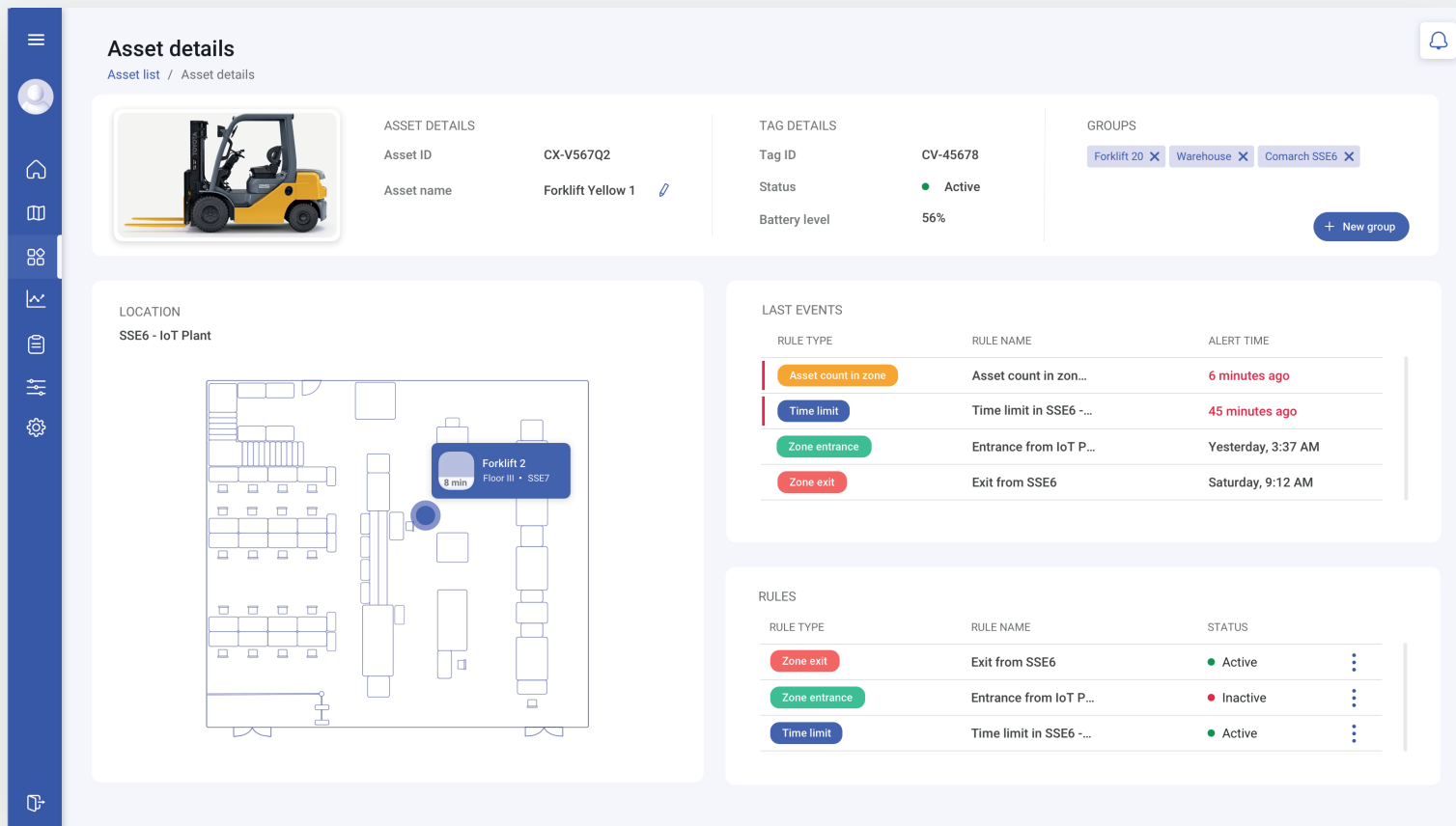
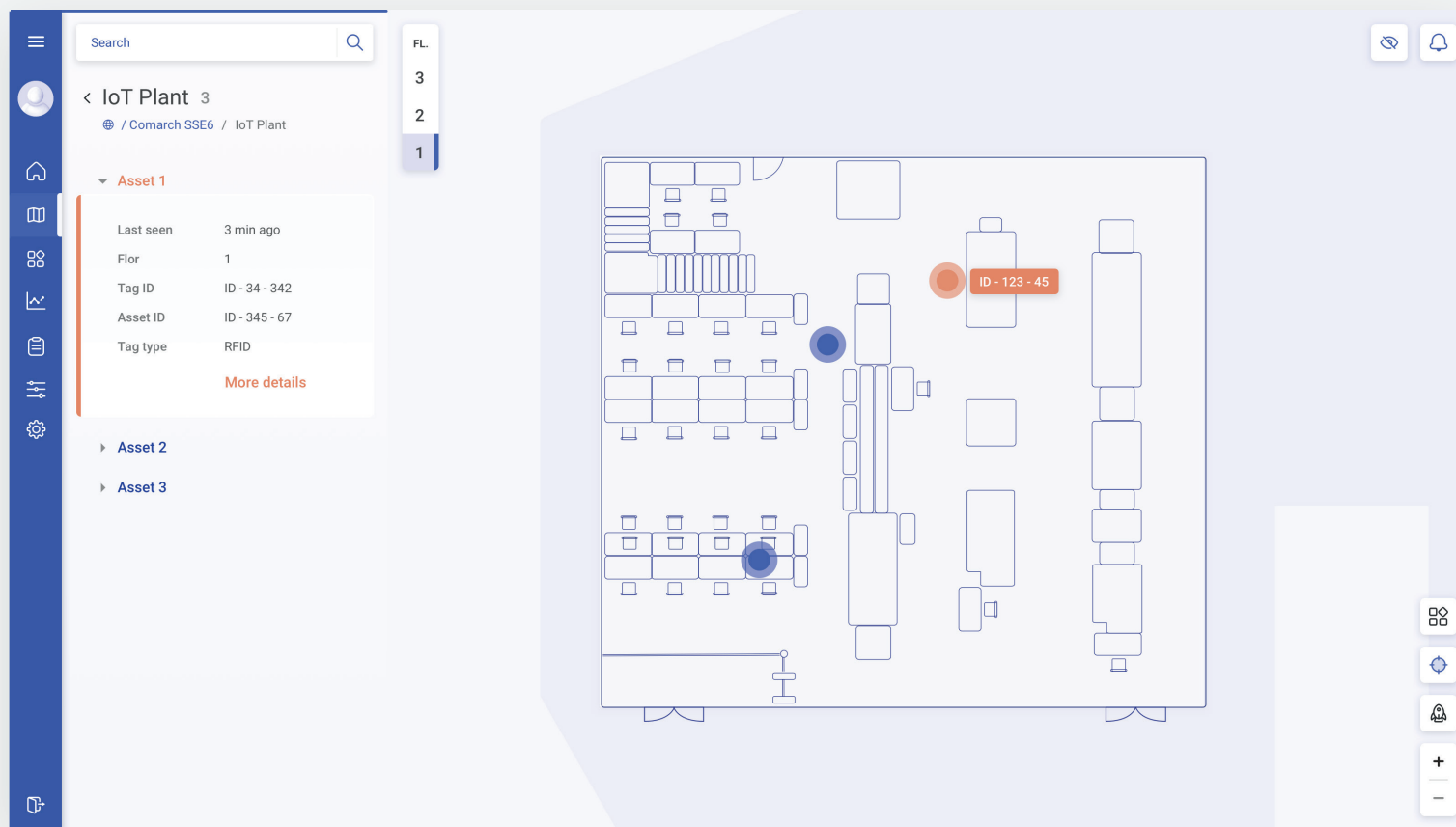
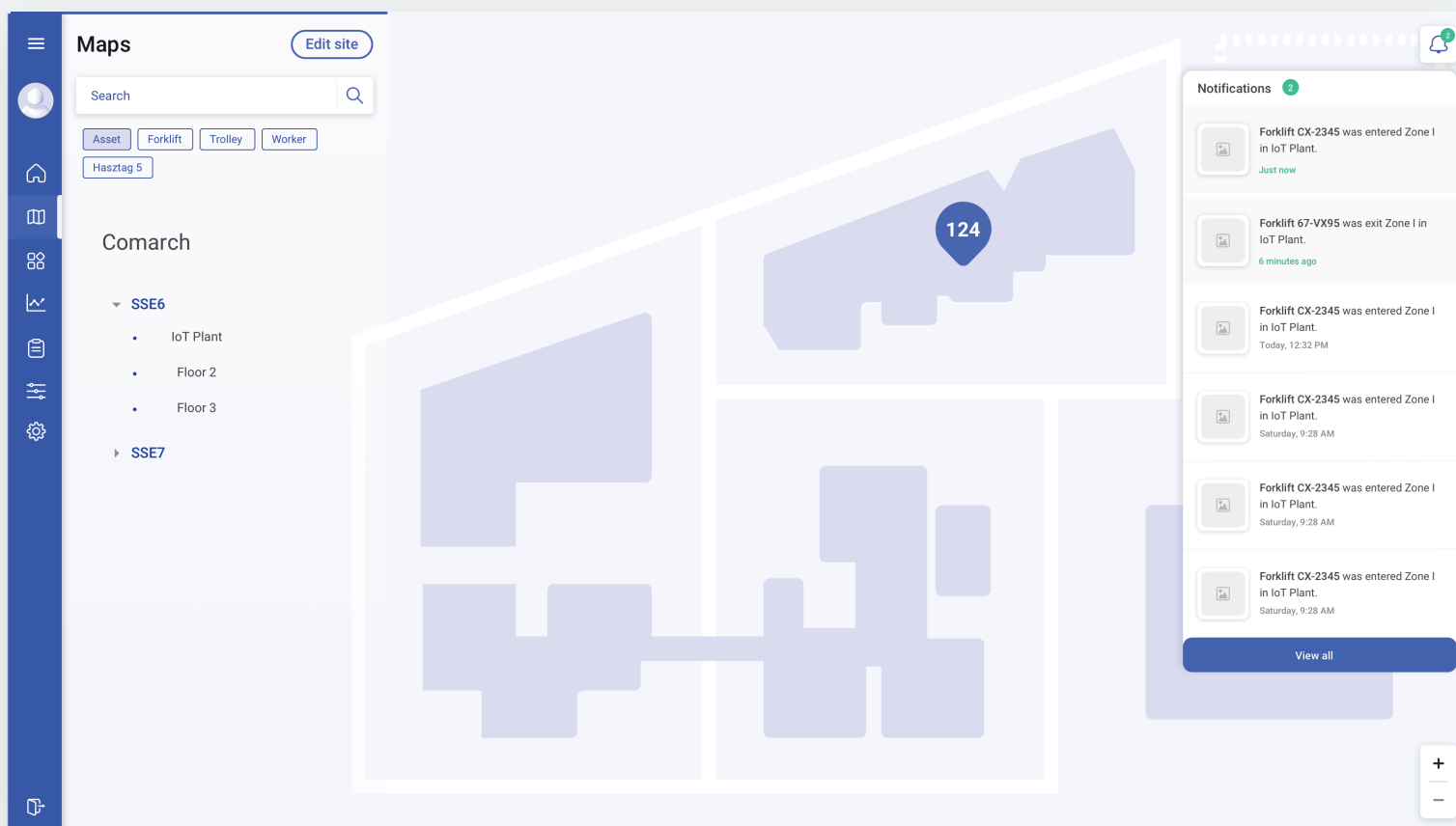
Time limit

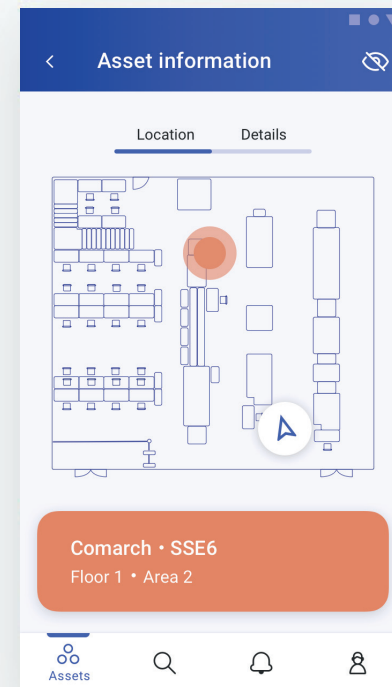
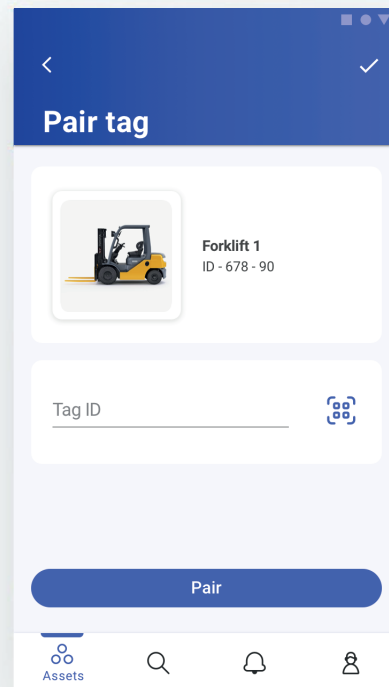
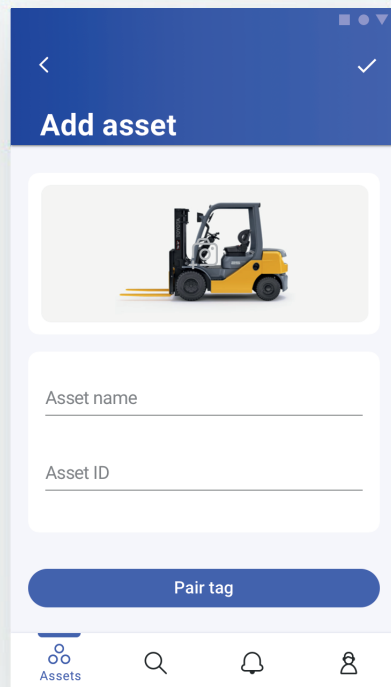
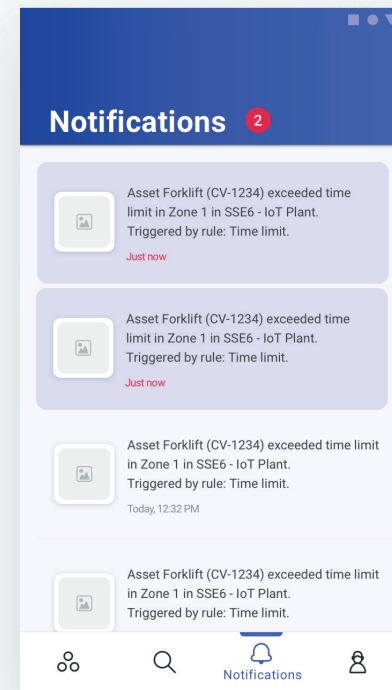
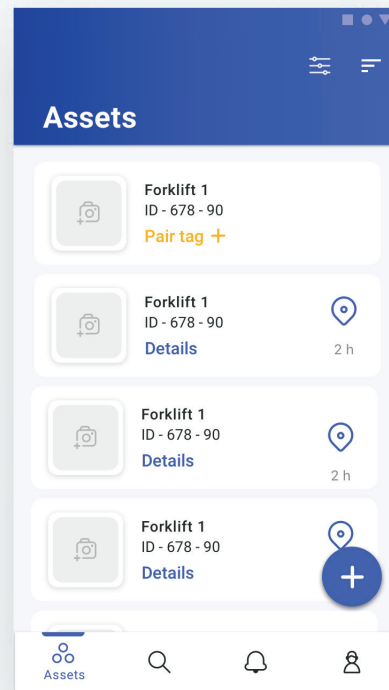
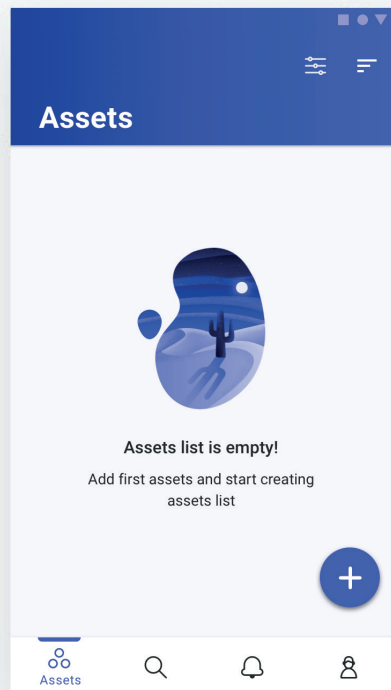
Zone entrance

Entrance from zone

Zone exit

Exit from zone





THANK YOU FOR WATCHING

magdalena.piwow@gmail.com

509 391 331