Our customer is a specialist in wireless development. The company provides hardware and software solutions worldwide. Also, they support technical implementation of connected business solutions and cover the area of IoT practices.
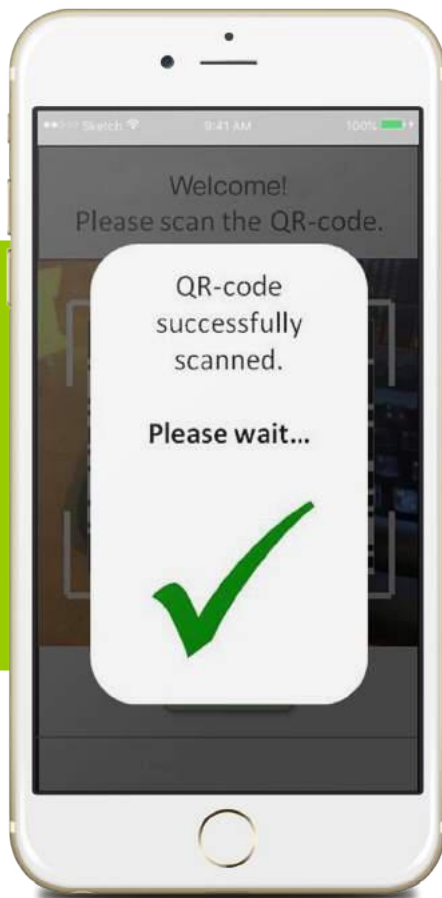
About the project

The essence of the project is to collect data from sensors installed around the perimeter of a building. Their task is to measure the physical characteristics of communal objects (for example, temperature or humidity). Sensors transmit the collected data to the server where they are processed. Then, processed data is transmitted through applications to users: landlords and tenants.

Challenge

For our customer it was necessary to organize the display of collected and processed data for landlords and tenants.

Therefore, the company set the task for us to develop special applications for displaying data to end users.

Solution

For landlords, we developed a **web application** to display data in all premises.

For tenants, we developed a **mobile application**. This was developed on the basis of two platforms - iOS and Android. Users can download it via a QR code, which is located on the premises of a residential building.

Key Features

Web application:

displays the data in a table format

filters the data for the specified parameters

displays the operation of the sensor

when installing, unpacks the content of a particular landlord and customizes it, because the ID of each landlord is embodied in the QR code

can be reinstalled for a new building / room by scanning a new QR code

displays the sensor data:
- physical indices of premises
- graph of values for the selected time period

Mobile application:

can be installed using a QR code

displays the data of a sensor located in a particular apartment

notifies the user about changes of the physical parameters of the room and recommends specific actions (for example, to ventilate the room or close the window)

Technologies Used

Web technologies:

JavaScript

Angular 2

TypeScript

Node.js

express

Express.js

Mobile technologies:

Java

Java Development Kit 7

Android Studio

Objective-C

Firebase

Firebase Cloud Messaging