

MVP Development For an EV Charging Startup



How crafting an MVP of a mobile app for **16 EV car models** and **65,000 charging points** across Europe empowered the UK-based startup to conquer the European EV charging market on the first try, connect **17+** charging networks, and raise funds for further development from prominent and influential **investors** – Lightspeed Venture Partners, Tier Mobility, and Wise.

Industry:
Technology

Expertise:
Mobile App Development

Context

Bonnet founder and CEO, Patrick Reich, entrusted us with the implementation of his start-up idea in 2020. His vision and belief, empowered by *instinctools product development expertise, served as the basis for the creation of a unique tech solution for millions of EV drivers all around Europe.

The application for iOS and Android devices aimed at aggregating all the local EV charging points and allowing its users to smoothly find and drive to the nearest spot and instantly pay for the charge.

Challenge

Despite a few core features and the app itself, that we needed to build together with our client, there were some technical challenges and decisions to be made to ensure the solution was properly implemented and to make sure further performance was stable.

01. The synchronization of the app's front end, back end and charging points servers.

The communication between "applications" is no less important than communication between people. Our first major task was to enable the proper connection between the main parts of the application and the charging points servers to get a real-time status of the charging process, even in background mode. Together with our client's development team, we analyzed the algorithms and work logic of each charging spot provider and enabled its unhindered synchronization with the Bonnet application.

02. Payment service integration.

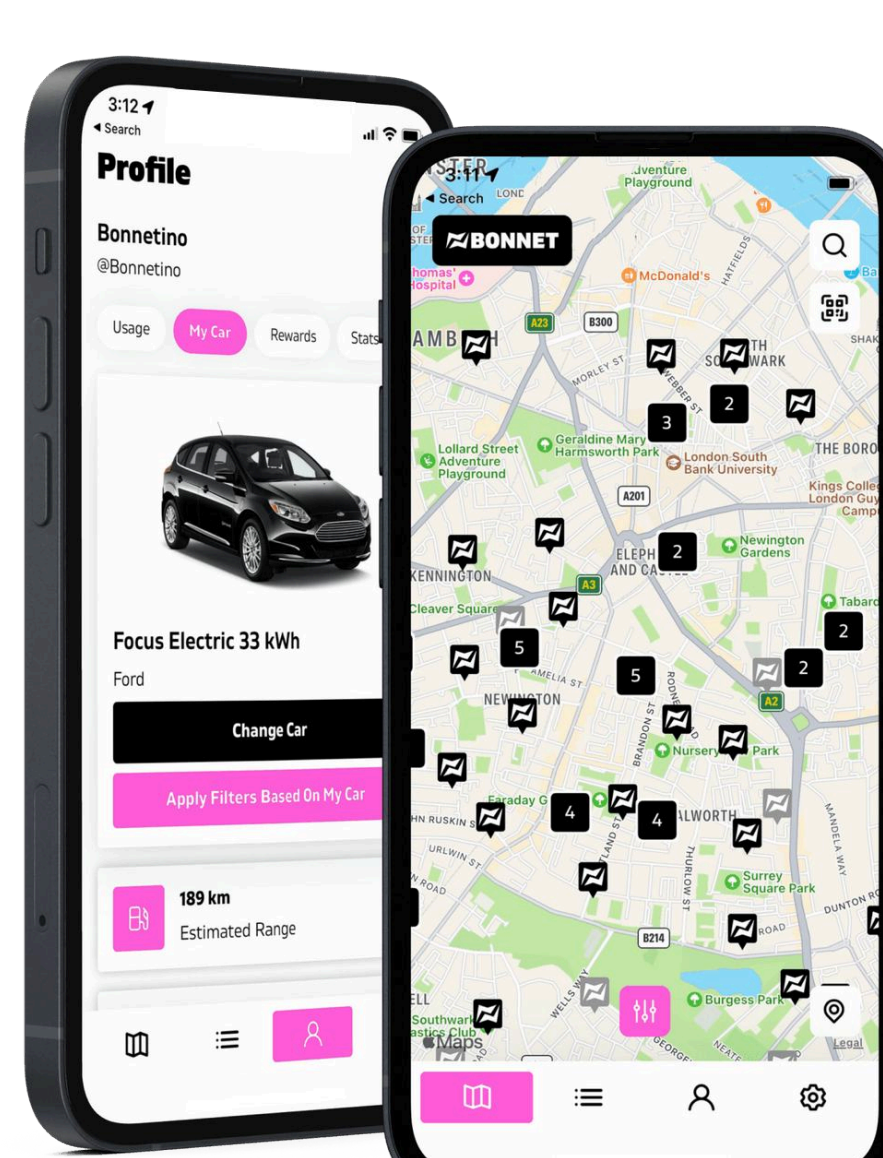
The integration of the Stripe payment service required efficient communication with the back end of the application. Together with our client, we thought over the development of technical algorithms for various scenarios related to the user's bank account, withdrawals, including repeated transactions, etc. Our senior backend developer dived into Stripe's operation system to bring more value and help create secure connectivity between the systems.

Solution

We developed an Android application which became the basis for the development of an iOS app. It provides EV drivers with smooth access to the public charging infrastructure.

The Bonnet app has an extended functionality for customer service, instant payments, bonuses, and useful analytics about recent charges.

The implemented subscription model, in addition to a pay-as-you-go service, is defined by the charge type (all points or the cheapest only) or user type (individual or corporate client).



Key features

- In-app analytics and history of all the charges.
- Online chat Intercom with FAQ and real-time support functionality.
- QR-code on charging points for quick access and charge start.
- Map with available charging points and search functionality.
- Authorization via Google or Apple accounts for different applications.
- Payment account with an integrated coupon system
- Push-notifications

Client's testimonial

*"The expectations for the quality of the initial product were very high. I think *instinctools did a great job ensuring those expectations are met. We met the developers we were going to be working with and it quickly became apparent that they are very qualified and were able to deliver the vision that we had from our side for the product. They clearly told us what they were going to do, and if there were questions or problems along the way, they clarified them really quickly thanks to transparent communication."*

- Patrick Reich, CEO and Founder at Bonnet

Business Value

Software product development mindset — this is what start-up founders look for when selecting the right technology partner for their business. This is the approach that allows the tech team to be on the same page as the customer and deliver the MVP in a short time. *instinctools work helped Bonnet enter the market promptly and form the basis of a successful fast-growing tech business.

Technologies



RX Java



Kotlin



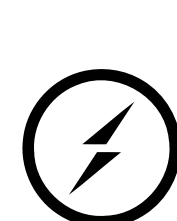
Google Maps API



Firebase Cloud Messaging



Pusher



Socket.io



Stripe

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