

Project Proposal – Multi-Vendor Shipping App

1. Introduction

Pakettikauppa is a start-up that was acquired by Posti in autumn 2019. Pakettikauppa is a multi-vendor platform which provides easy access for e-commerce merchants to services from different logistics companies. Pakettikauppa's main customers are e-commerce merchants that need shipping.

Pakettikauppa has two main channels to provide services to merchants: API and web application. The web application was originally created for a smaller scope. However, after the service has grown, the requirements for the web app has also grown. The current implementation has come to its end. Therefore, there is a new for a new app that can be used to develop more features easily.

2. Project goals

The project goal is to design and implement a new merchant panel app for iOS, Android and Web using React Native with Expo. By using Expo, we can maintain and developed one codebase for all the platform easily and accelerate service development with new app design.

The server-side of the merchant panel is not in the project goals, but it does require a minimalist server that can provide dummy data to the app. Pakettikauppa will use the results of this project to further develop an app for its needs, and also provide real back-end server to provide real data to the app.

Besides basic functionalities such as login, logout, and navigation, these are the functionalities we want to develop: viewing shipments, creating new shipments, viewing statistics, viewing reports and viewing/editing account settings.

Another project goal is testing the possibility of continuously deploying a testing version of the app for the client. Consequently, the client and the team can see the progress of the development easily, and collaborate in the design and/or implementation decisions.

The app will be released as an open-source project and placed available under client's GitHub account.

3. Technologies

The application will be written with Expo. Expo is a cross-platform framework developed on top of React Native. Because of the cross-platform nature, Expo apps can only be written using JavaScript or TypeScript.

Expo can be developed using any IDE students prefer to use. For example, Expo provides an open-source IDE that is specialized to developed using Expo. Expo apps can be tested



using students own smartphone or a web browser. Testing the app on a smartphone does not require developer account on a Google Play or Apple App Store.

A mock back-end API can be implemented in any language. It is used only for demonstrating purposes. If the team makes good progress on application development, the team can also work with back-end development since we can be flexible with the scope.

4. Requirements for the students

No special skills are required from the students.

UI design and experience of using React Native/Expo/React/JavaScript/TypeScript are a plus.

The difficulty of the project is moderate.

5. Legal Issues

Intellectual Property Rights (IPR): The client gets all IPRs to the results.

Confidentiality: The client will not share any confidential information with the students.

Posti is also thinking of releasing the results after the project under MIT license.

6. Client

Pakettikauppa is a service run by E-Log Services Oy that is part of Posti Group Oyj. Depending on the Covid-19 situation, Posti can provide working spaces for teamwork.

A cloud server will be provided for the mock back-end API implementation.

Joose Vettenranta will act as the Product Owner of this project. He is the client representative and has the most expertise regarding Pakettikauppa and its customers' requirements. Joose is the founder of Pakettikauppa and has 35 years of programming experience. He can provide up to 1 hour/day for help and few bigger sessions if needed.

Henry has experience working with these technologies. Therefore, he can provide guidance to team members when the team needs help with JavaScript, TypeScript, React Native, etc. Additionally, the team will be also supported by other engineers and designers at Posti.

Client representative:

Joose Vettenranta

Henry Tran

Business Manager

Senior Software Engineer

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Preselected Student Team Members

Henry Tran: Scrum Master in this project

7. Additional information

Documentation is to be done in English.

There is a possibility for students to work on this app after this project to further develop the app for production readiness.