# Group 1 - Otso code camp

## Introduction

Code camps are a special event in which a case of study is solved in teams creating software in a fixed time, Lappeenranta University of Technology and LTC-Otso proposed the current one for offering a real problematic that can be solved via coding opened to creativity of the participants.

### Components

The team 1 named “Erlangen” is formed by:

- Rohan Durugkar
- Aitor Brazaola
- Behnaz Norouzi
- Eduard Telezhnikov

## Business case

Manufacturers build a chain of subcontractors for deploying their products, in many cases, they have a lot of companies that serve their services and selecting the best ones for certain assignments of products could be a difference between providing a good customer experience or not.

When Otso showed the case offered approaching this problematic in three main different ways:

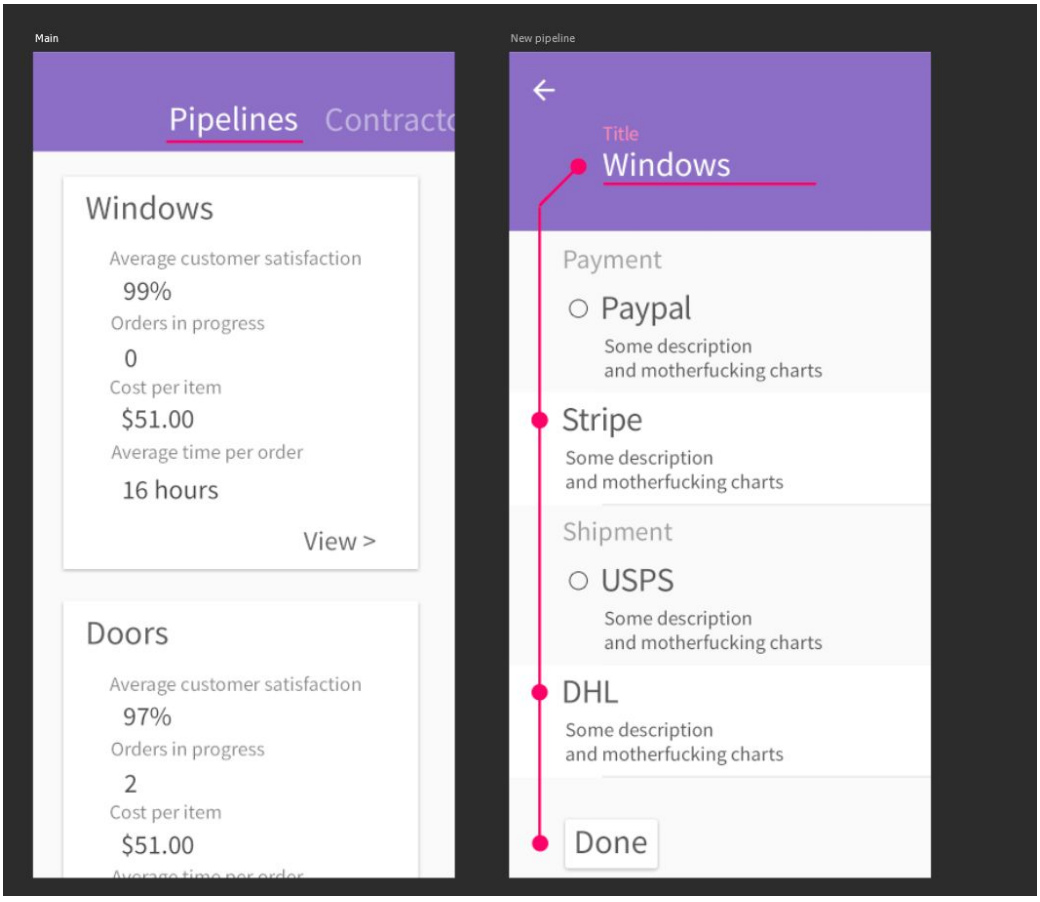
- Create a mobile app or web page for the customer to give feedback on his experience What does the feedback form look like?
- Create an app or a web UI where the manufacturer can manage his subcontractors
    - Manufacturer should be able to create an assignment...
    - add subcontractors to it...
    - and choose the customers to send the feedback request to
    - Manufacturer should have a “scoreboard” view of the assignment and another for all his subcontractors
- Create an app where the subcontractor can browse feedbacks from his services and see a “scorecard” of his performance
    - What does the scorecard look like?

## Brainstorming

Immediately finished the Otso presentation we gathered the whole group trying to find which of the three options are the most affordable taking account the team member skills, finally we came up with an idea for implementing the second point “Create an app or a web UI where the manufacturer can manage his subcontractors”

## Selected idea

Based on the requirements, we decided to develop a mobile application which could be a manager for the manufacturers that ables to create different subcontractors configurations for different assignments and getting charts of a set of quality markers in a beautiful way and at the same time check the latest final customer feedback with more specific data.




In the previous picture we can see the first prototype of the idea we made, when we started to develop we kept some features changed others but worked as a main skeleton for start coding.

# Technologies

All of the team members wanted to learn and experiment with technologies never used by each, so we embrace the proposed by the organization with some changes.

For deploying and wrapping the application we have used *PhoneGap* because gives flexibility for deploying in all the platforms with the same code, and for making the screens structure and hooking the events of a mobile platform *JQuery Mobile* framework.

We like the web technologies, but we also think that a mobile application should look in concordance with the rest of the design language of the host operating system and the styles provided by default from *JQuery Mobile* did not fit with this approach, so, we started to find alternatives until we come up with *Native Droid 2,* is a theme for *JQuery Mobile* that reproduces the *Material Design* style of *Android* devices.

At this point we had the front end technologies selected, and we started to think if we could make a back-end for creating a more real network architecture to the app, but finally decided that would be out of the scope and the time consumption in the development did not be worthy.

Finally ended with a set of fake data stored in *JSON* format as source of data readed dynamically by the application.

## Features

From the manufacturer perspective the list of features that we wanted to achieve are the following:

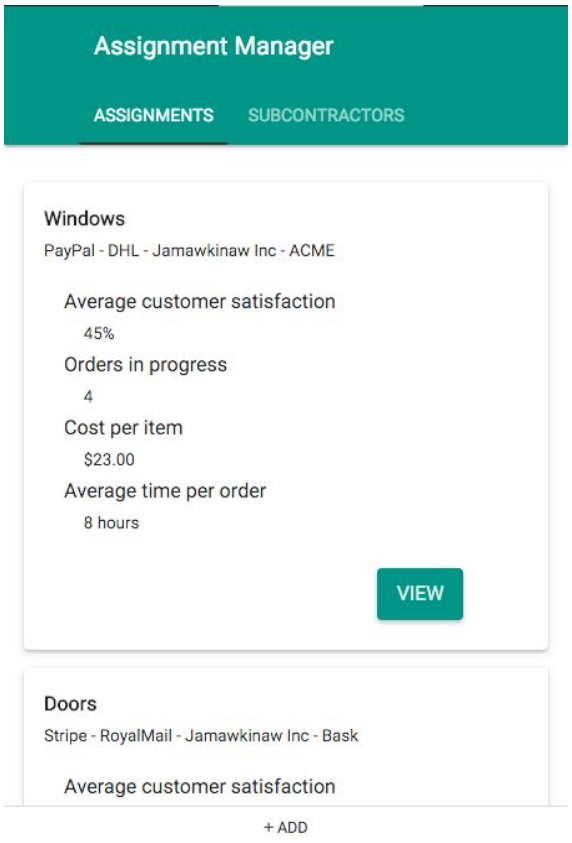
- Assignment creation with different subcontractor configurations
- Subcontractor catalog for browsing in a friendly way and get information in detail
- Charts of subcontractors performance for each assignment
- Browsing recent customer feedbacks
- Native-like user interface

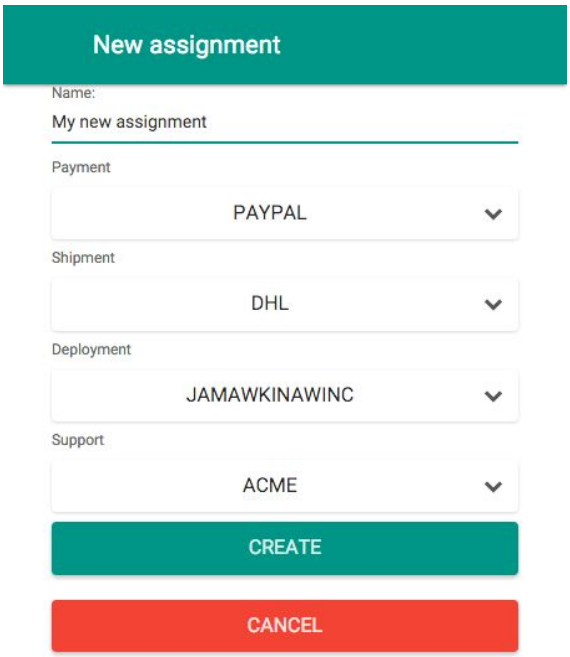
# Working process

Because all of the group members had difficulties for attending physically every day of the code camp to the university, we decided working remotely and stay in touch using *Slack* and coding using a shared repository on *GitHub* ( https://github.com/kronosnhz/Erlangen ).

All the code contributions along the week were done using *GIT* version controlling system and we meet the last day morning at the university with the goal of the code finished and starting to prepare the presentation.

# Screenshots of the solution



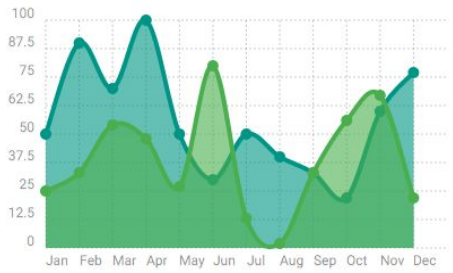



## Windows

Payment

**Paypal**

Successful payment rate | Transaction cost




Shipment

**DHL**

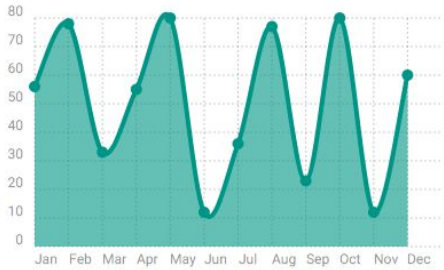
Lost ratio | Damaged ratio

## Windows

Support

**ACME**

Incidences




RECENT FEEDBACK

## Recent User Feedback

John Doe

**Payment**

Payment Method: Paypal

Payment Processing Time (hours): Immediate

Transaction Cost (%): 1

**Shipment**

Delivery Time (days): 2

Lost: false

Damaged: false

**Deployment**

Time Between Shipment and Deployment (days): 24

Installation Time (hours): 2

Incidences: false

**Support**

## Assignment Manager

ASSIGNMENTS SUBCONTRACTORS

Payment

PayPal

PayPal Holdings, Inc. is an American company operating a worldwide online payments system. Online money transfers serve as electronic alternatives to traditional paper methods like checks and money orders. PayPal is one of the world's largest internet payment companies. The

+ ADD

# Contents

Each assignment contains an overview of how good it performs, with a chart for each metric, indicating change from previous time.

In the “New Assignment” view, there should be a switch in the footer (fixed to bottom of the screen) that allows to select which subcontractors are going to being involved in it.

Each stage has 3 stats generated from reports by subcontractor and one filled by the owner of the company( subject to change):

1. Time per order, hours
2. Cost per order, USD
3. Issue percentage, %
4. Notes (can be used to describe complex cost formula or some context), Text field

Each report contains:

1. Date & time order was received.
2. Date & time stage was completed
3. Cost, USD
4. Success / Failed flag, Boolean
5. Comments, Text field

Feedback from the order consists of 3 fields per stage + overall experience mark and a notes section:

1. Did you have issues on this stage?, Boolean
2. How fast was this part of your experience?, Integer(1-5)
3. How can we improve your experience on this stage?, Text field

If customer had any problems with the order, feedback is turned into a ticket for support stage. On it, subcontractor contacts the stage where problems occur (and marks them as Failed) and makes sure issues are resolved. After support closes a ticket customer receives a bloody feedback form and circle of life continues.

If the order spends more than average time on a stage, it is marked as sketchy or something.

| Payment | Shipment | Deployment | Support |
|---|---|---|---|
| ● Average payment time<br>● Success Payment Rate<br>● Cost /Transactions | ● Average Time<br>● Lost Ratio<br>● Damaged | ● Time passed From Arrived<br>● Installation Time<br>● Incidences | ● Solved<br>● Number of Tickets<br>● Incidences |

# Conclusion

This code camp has been a good way for learning how to use technologies widely used at the industry like *PhoneGap* and a good approach to the business problematic that manufacturers company faces every day.

The tools that we have used on the problem solving are polyvalent and powerful and gives the opportunity for using them later in new projects.