Project Overview

GTA-VI - A Nedap Theft Dashboard

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Project Overview

Shoplifting and thefts are rising increasingly over the past decades, becoming more and more of a problem. The losses in value and revenue can barely be described. Hence this is becoming a major point of concern for many shops and franchises. While it is hard to keep an eye on everything that happens during the day, shops are desperately trying to improve their security protocols to reduce the number of thefts and therefore reduce the loss ratio.

During the initial 2 weeks of the module, Nedap gave us the assignment to develop a web application to get clear insights into the theft data from stores, franchises, and companies. The general assignment hence was to create a dashboard and connect it to a real-time database. Using this database, we had to create data visualizations to inform the user of the current numbers and theft ratios.

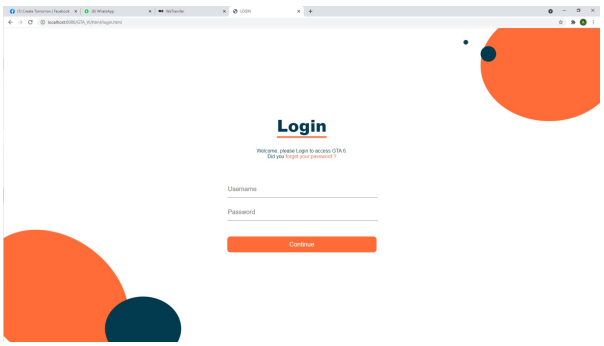
While it was hard to get our hands on a real-time data source, we had received a dummy set of data, containing data of over 25 stores. Using this dummy data we had to develop a dashboard that gave the users, classified as store managers, division managers, and loss prevention managers, the ability to get clear and concise insights in their loss rates per store, per day, per filter.

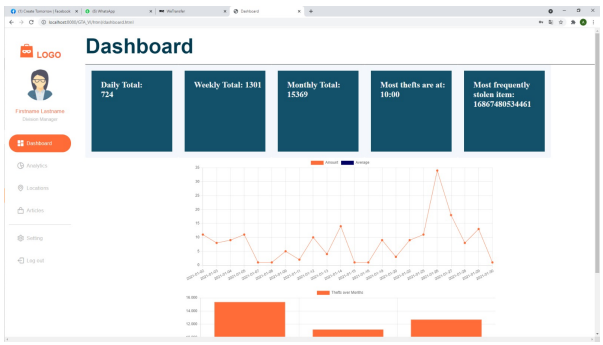
This dashboard had to be intuitive, easy to understand by the average joe, as not all shop owners are familiar with computer technology. Also, the dashboard had to contain a set of minimal functionality with which the user could work. The dashboard and backend management had to be done by either someone from the shop itself or someone from our team of developers. Hence we also had to create an all-access kind of permission.

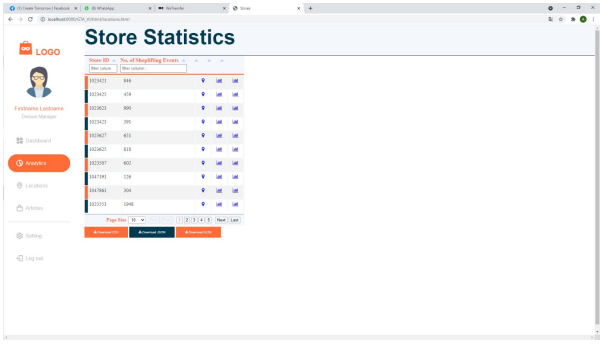
The aim of this project was to develop a lightweight, real-time dashboard that keeps track of all losses to determine what actions to take on basis of the data that correlates to a theft. For this project, we, hence, have developed a dashboard that works on basis of these requirements, while staying intuitive to introduce new insights to the users.

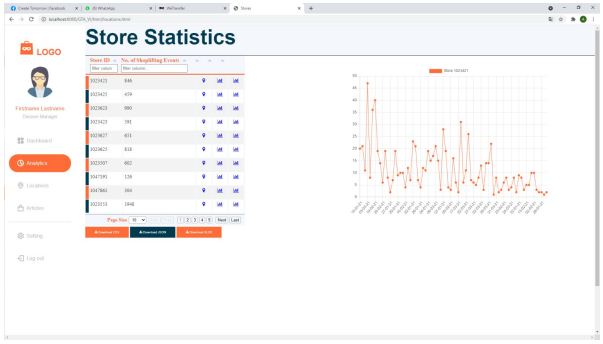
Our final product is the result of 10 weeks of brainstorming, development, and testing. Within these 10 weeks, we have implemented all the required functionality of a functional application. Next to the application, we have tried to ensure the user of their security by implementing various amount of security measures, like credential hashing, session token system, and authentication.

Our initial product, and therefore our proposed solution to the Nedap Issue, is summarized in the screenshots of our system below. Within these screenshots, we have shown our main application with all data visualizations that are required for the system.

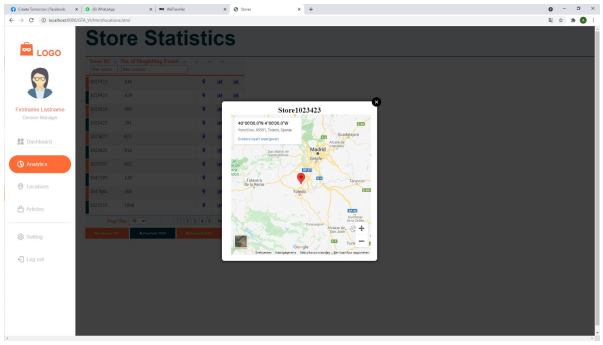

Login
Welcome, please Login to access GTA 6.
Did you forget your password ?
Username
Password
Continue

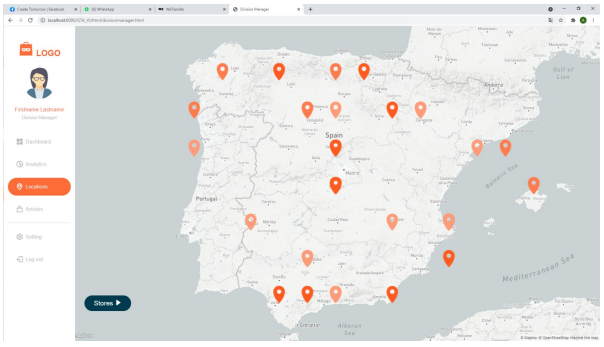

LOGO
Dashboard
Daily Total: 724
Weekly Total: 1301
Monthly Total: 15369
Most thefts are at: 10:00
Most frequently stolen item: 16867480534461


LOGO
Store Statistics


LOGO
Store Statistics


LOGO
Store Statistics
Store ID: 1023425
Filter Date


LOGO
Store Statistics
Store1023423


LOGO
Spain
Portugal
Mediterranean Sea
Stores

While the prototype is finished, the concept of development remains unfinished. Having a backlog of new features ready for the next release. Features we would like to implement in the next iteration include:

- Machine Learning on basis of Data,
- Real-Time Databases & implementation, and hence discard the dummy data,
- Secure Web OAuth.