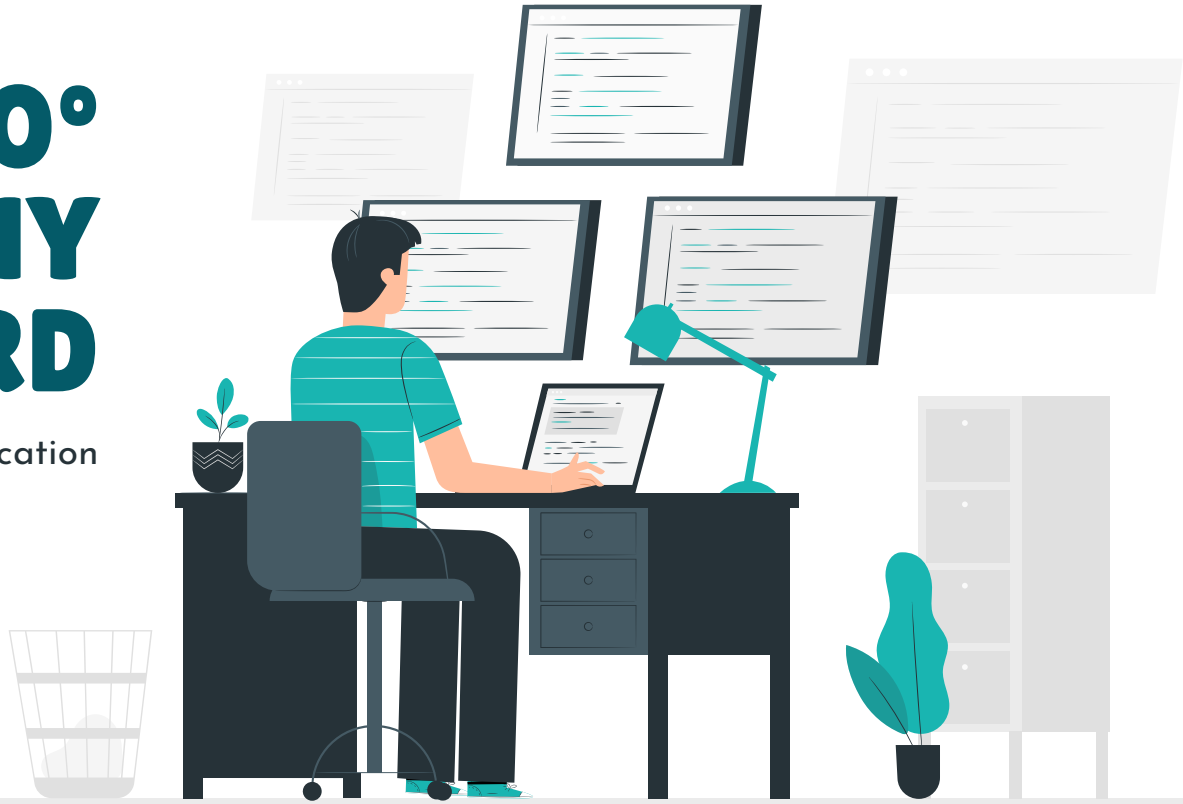
360° COMPANY DASHBOARD

SCOPE Web Application



OUR TEAM

Group M

Diogo Machado

up201706832@fe.up.pt

Paulo Marques

up201705615@fe.up.pt

João Cardoso

up201705149@fe.up.pt

Raul Viana

up201208089@fe.up.pt

Gonçalo Marantes

up201706917@fe.up.pt

TABLE OF CONTENTS

ABOUT THE PROJECT

Scope is a web application that provides our hardware and home improvement retail company **Scope Bricolage** a thorough report, complete with details about sales, inventory status, and overall balance over time.

CORE VIEWS

Overview

Entry page, broad view of the company performance in the chosen time gap

Sales

Total profits, cost of goods, sales revenue. sales per store, top sales, top consumers and sales over time

Purchases

Different charts and tables, like total purchases purchases by product and by supplier

Inventory

Stock variation and most valuable items, tables with total units, low stock items and most valuable items information

Financial

Key references like EBIT, EBITDA, accounts payable and receivable values and table with balance sheet

DRILLDOWNS

Client

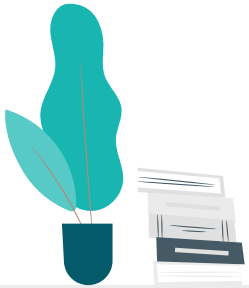
Detailed information about a client company details and sales value , total and over time

Product

Detailed information about a product - identification, suppliers, average and total costs of selling, profit margin and stock. Charts about purchases vs sales and price variation over time.

Supplier

Detailed information about supplier - identification, purchases and chart about purchases over time



FUNCTIONALITIES AND FEATURES

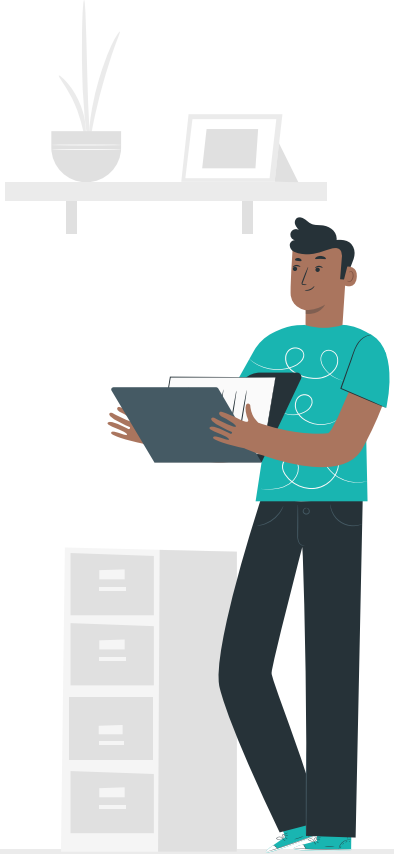
SAF-T DATA

SAF-T COMPLEXITY

Usually a SAF-T file is large and has a lot of information that must be processed repeatedly.

RELATIONAL DATABASE

Data persistency in a PostgreSQL database, building schema, seeding and querying with ***Knex*** package



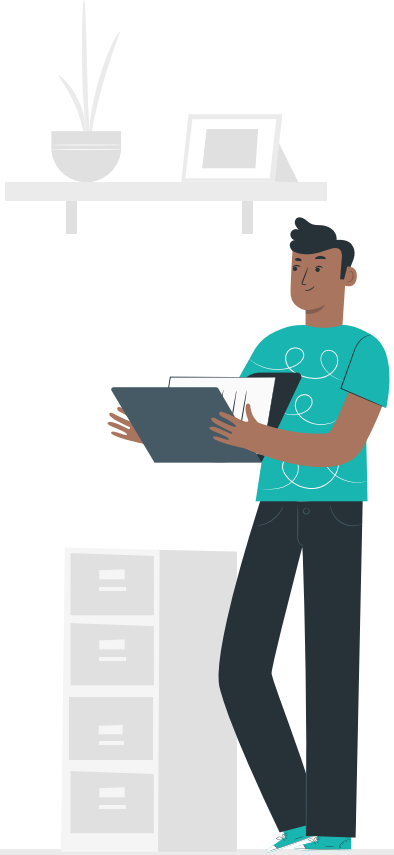
FINANCIAL KPIS

BALANCE SHEET AND INCOME STATEMENT

Some values were difficult to calculate when starting from the taxonomies, which were the starting point to the calculations for the balance sheet and the income statement

TAXONOMY TABLE

Creation of database intermediate tables, making the data calculation easier and the queries faster and less complex



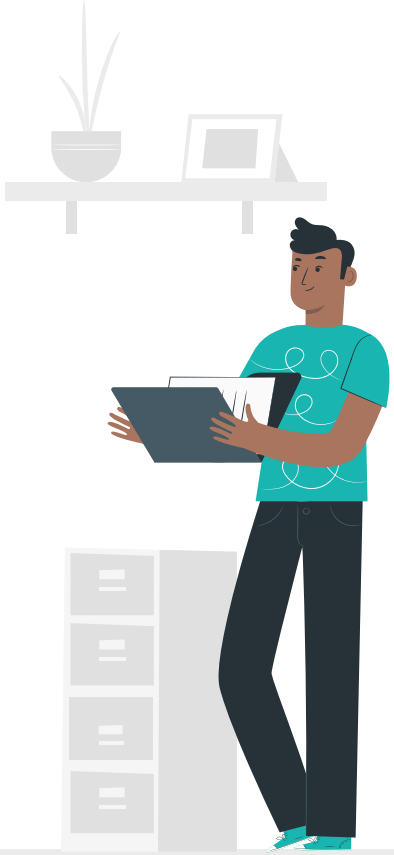
DATA VISUALIZATION

HUGE AMOUNTS OF COMPLEX DATA

As there is lot of data to display, sometimes it was difficult to accommodate every information in tables and charts. Also break all the data in relevant pieces, visually pleasant and meaningful.

VUETIFY AND CHART.JS

Using Vuetify and Chart.js libraries on the frontend allowed us to present all the data in a visually appealing manner.



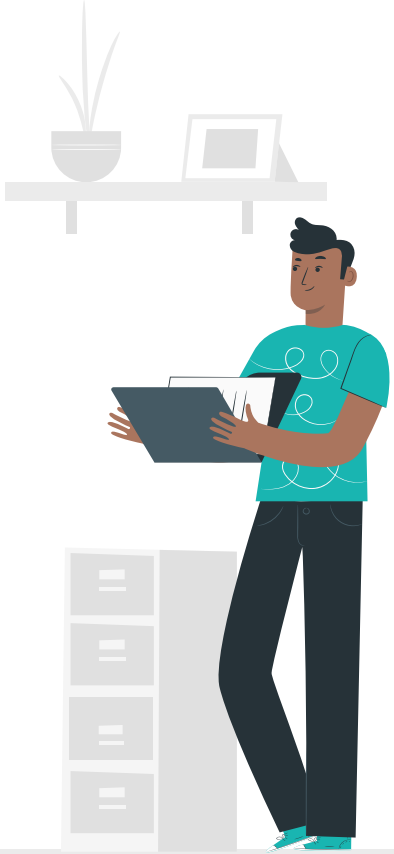
FLUID USER EXPERIENCE

COMPLEX JSON RESPONSE FROM JASMIN

Jasmin's *JSON* response is complex and has a lot of information with no interest for a particular request

BACKEND AS MIDDLEWARE

All requests and responses are handled in the backend. It acts like a middleware between the client and the Jasmin API. Backend parses Jasmin response and delivers just the needed information to the client. This allows a more fluid client usability.



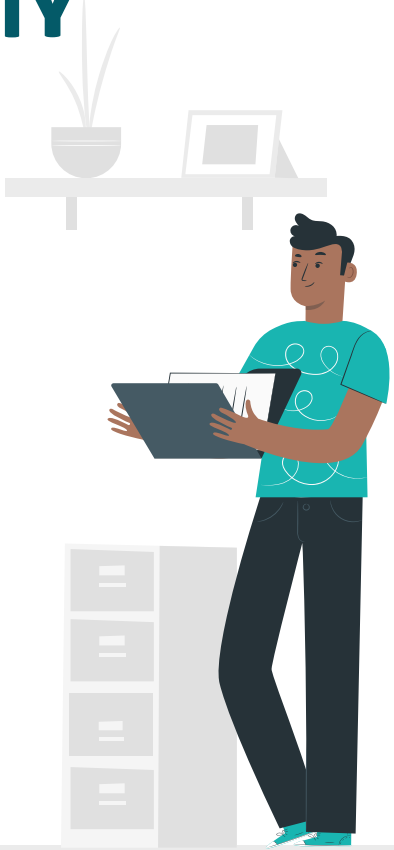
AUTHORIZATION AND SECURITY

SECURE AUTHENTICATION

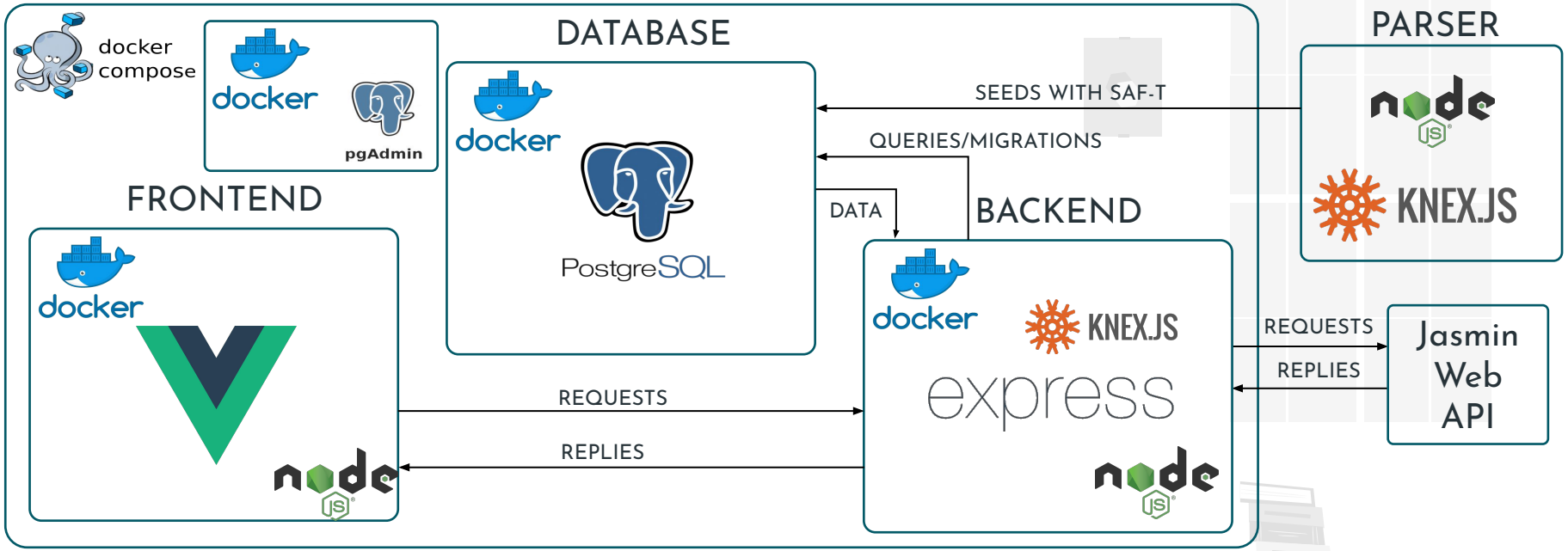
The company information made available in the dashboard is sensitive.

SECURING LOGIN AND ROUTES

Secure login and backend routing developed with Json Web Token Protocol with the help of jsonwebtoken package and password encryption with bcrypt.



SYSTEM ARCHITECTURE AND TECHNOLOGIES

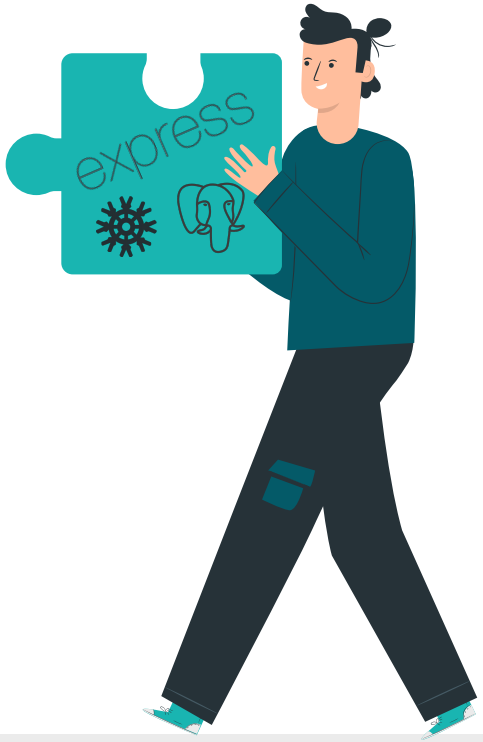


System is divided in frontend, backend and database and is containerized with Docker

Frontend is responsible for displaying the information in a responsive and user-friendly manner

Vue.js was the chosen option because it's very powerful and yet easy to manage and to produce beautiful layouts

FRONTEND



PostgreSQL, contains the database created to hold and persist the SAF-T data;

pgAdmin eases development process by allowing direct access to database;

Express.js is a Node.js framework that allows the easy inclusion and use of different libraries, namely *knex*, *jsonwebtoken*, ...;

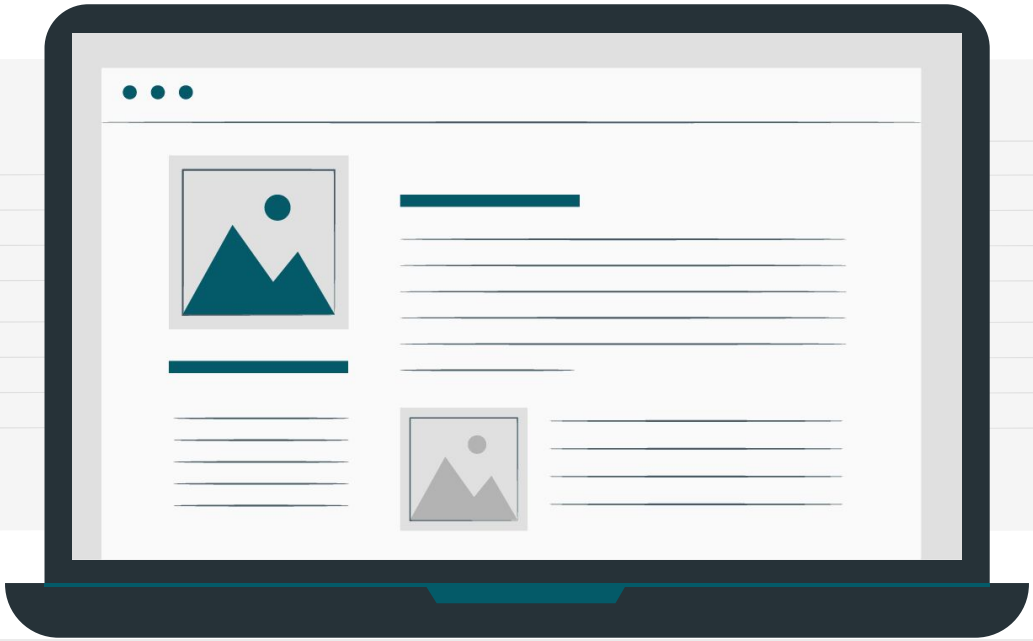
> **Knex** allows easy and fast development of the database schema, seeding, and querying

Backend is also responsible for the connection and querying the Primavera server

BACKEND & DATABASE

LIVE DEMO

See it with your own eyes!



THANKS

Do you have any questions?

Group M