FEUP FACULDADE DE ENGENHARIA
UNIVERSIDADE DO PORTO

P3 - Dashboard 360

Project specification

Grupo AF

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1. Introduction

Our group is being tasked with the development of a web application for inventory management. The project aims to guide us to a better understanding of developing a business managing application, focusing on making decision influenced by the environment of the business we are targeting.

2. Project Vision

When given the option of choice on what to base our target business on, we decided we'd develop the app with a computer component retailer shop in mind.

Our more exact match would be portuguese computer component retailer "PCDiga". PCDiga has a large enough market percentage to be relevant and has become the go to place to buy specialised computer parts, especially within our college community.

The company's shops operate on a small storefront and a large warehouse like back where inventory is stored. Their focus on inventory supply and demand make them a perfect target to aim for when developing our app.

3. Project Overview

Our Web application could be detailed as a 360º dashboard, that serves as an interface between the warehouse inventory and the store manager.

The app's main purpose is to be a quick, simple to use method of viewing and understanding data from store sales, purchases and data metrics with aim to optimize sales strategy.

To maximise the potential of the software, we are integrating it with an ERP, “Primavera” in our case. This link is one way only. The web app will extract information from Primavera and use its data to render and display graphs and views to the user.

We have divided our application in five core views:

- Dashboard
- Inventory
- Sales
- Purchases
- Profit and Loss Analysis

The **Dashboard** is our landing page and serves and a quick profits overview.

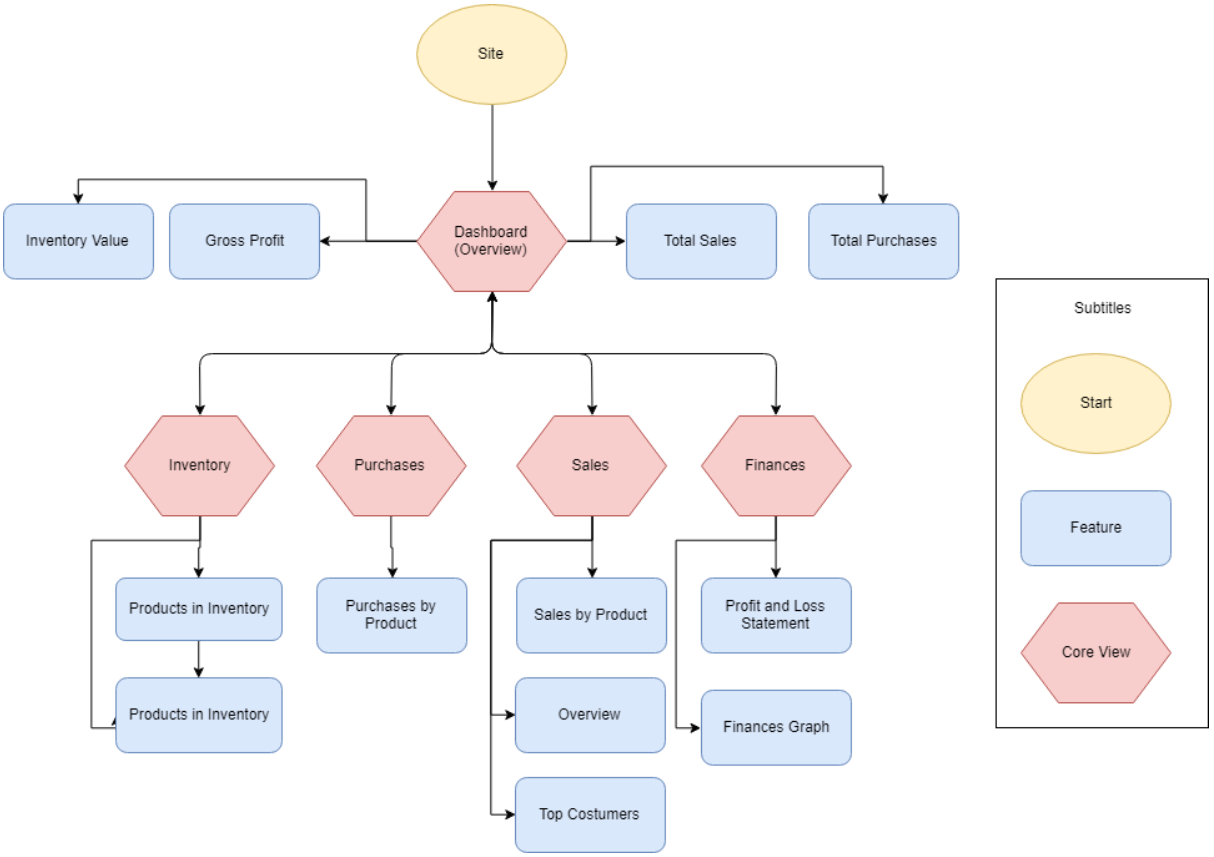
Inventory is where the user can view the list of items in warehouse and its stock;

Sales presents a rendered graph view of the sales from X to Y date, as well as displaying some extra information such as top customers;

The **Purchases** panel is similar to Sales, but in regard to our purchases to (re)stock;

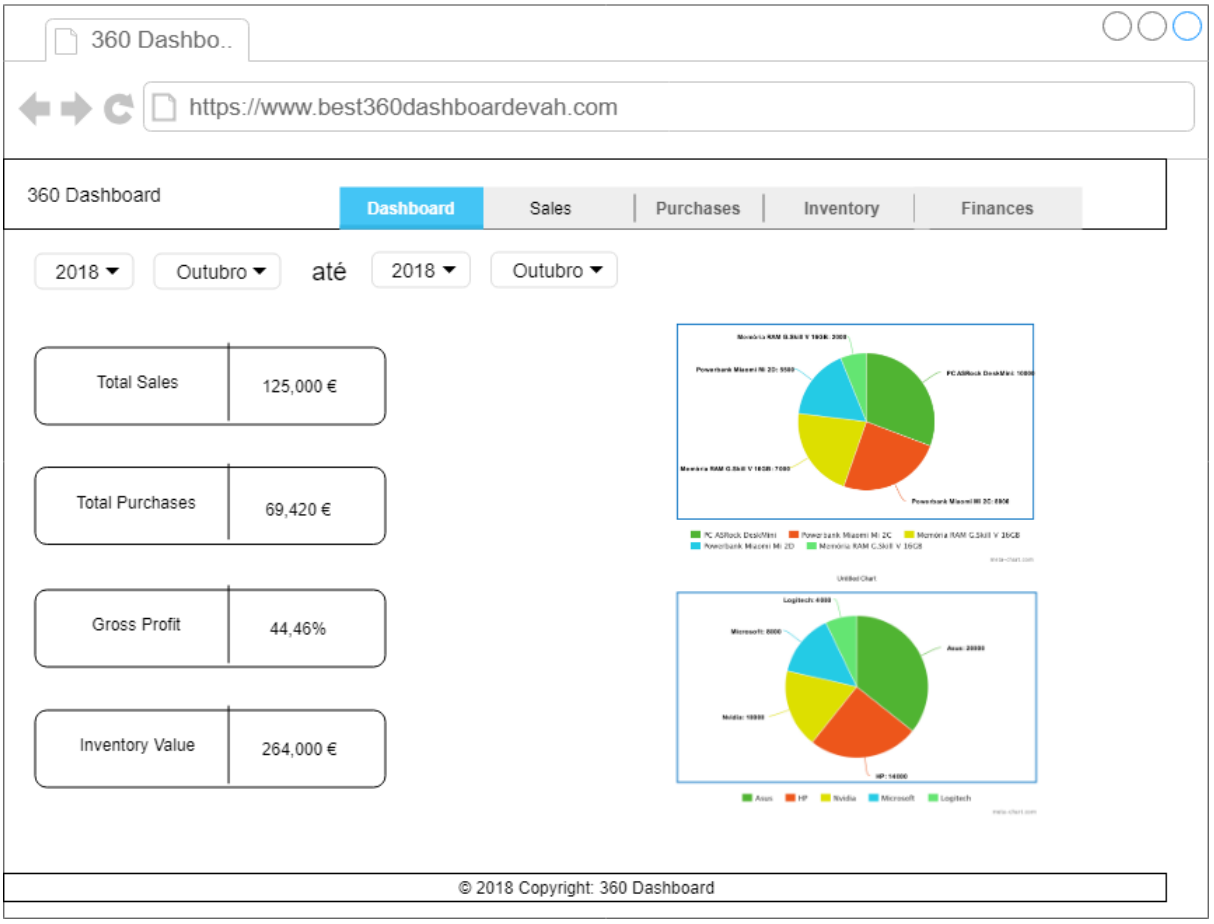
The **Profit and Loss Analysis** page shows an overall view of our finances in the industry standard table view.

4. Site Map


Site
Inventory Value
Gross Profit
Dashboard (Overview)
Total Sales
Total Purchases
Inventory
Purchases
Sales
Finances
Products in Inventory
Products in Inventory
Purchases by Product
Sales by Product
Overview
Top Costumers
Profit and Loss Statement
Finances Graph
Subtitles
Start
Feature
Core View

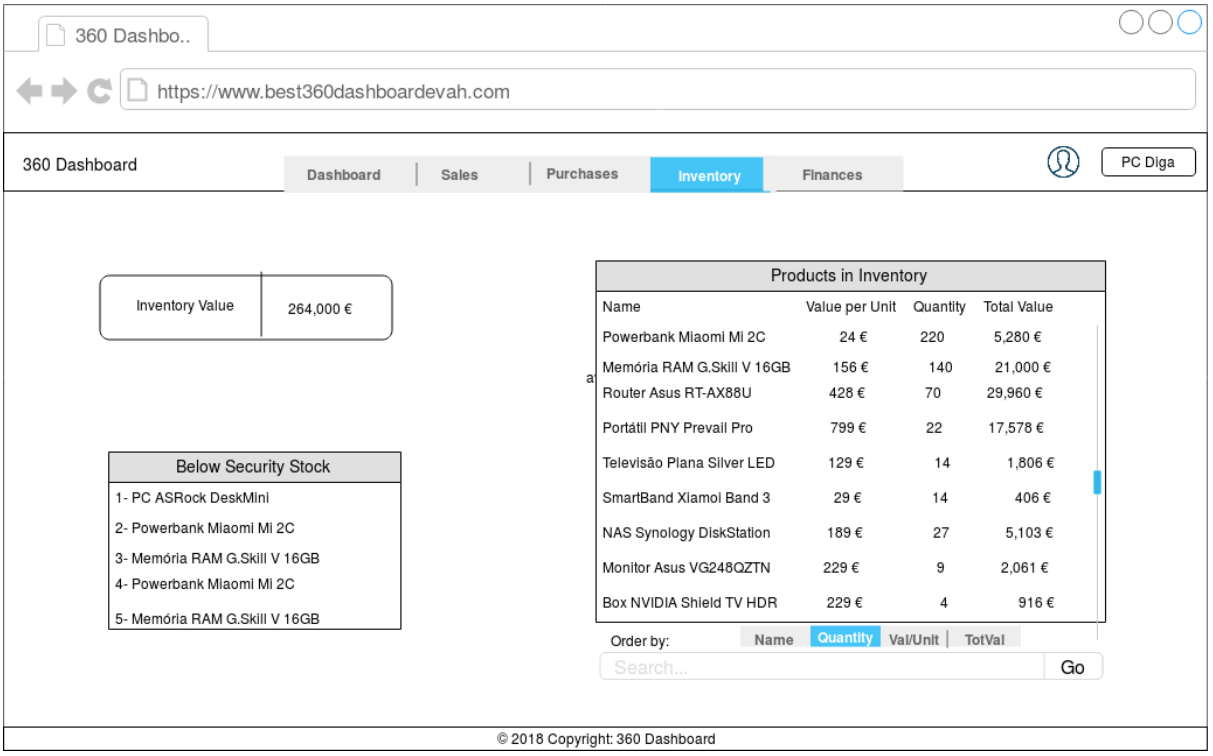
5. Information Architecture

5.1 Dashboard



This core view has to objective to be the entry point for our application/business. It will provide more general information such as *Total Sales*, *Total Purchases*, *Gross Profit* and *Inventory Value*. All these informations can be viewed according to a certain date, as seen on the top left of the screen. On the right side of the screen, we can see two pie charts containing information about top products by revenue and in the second one we can check top brands by revenue.

5.2 Inventory

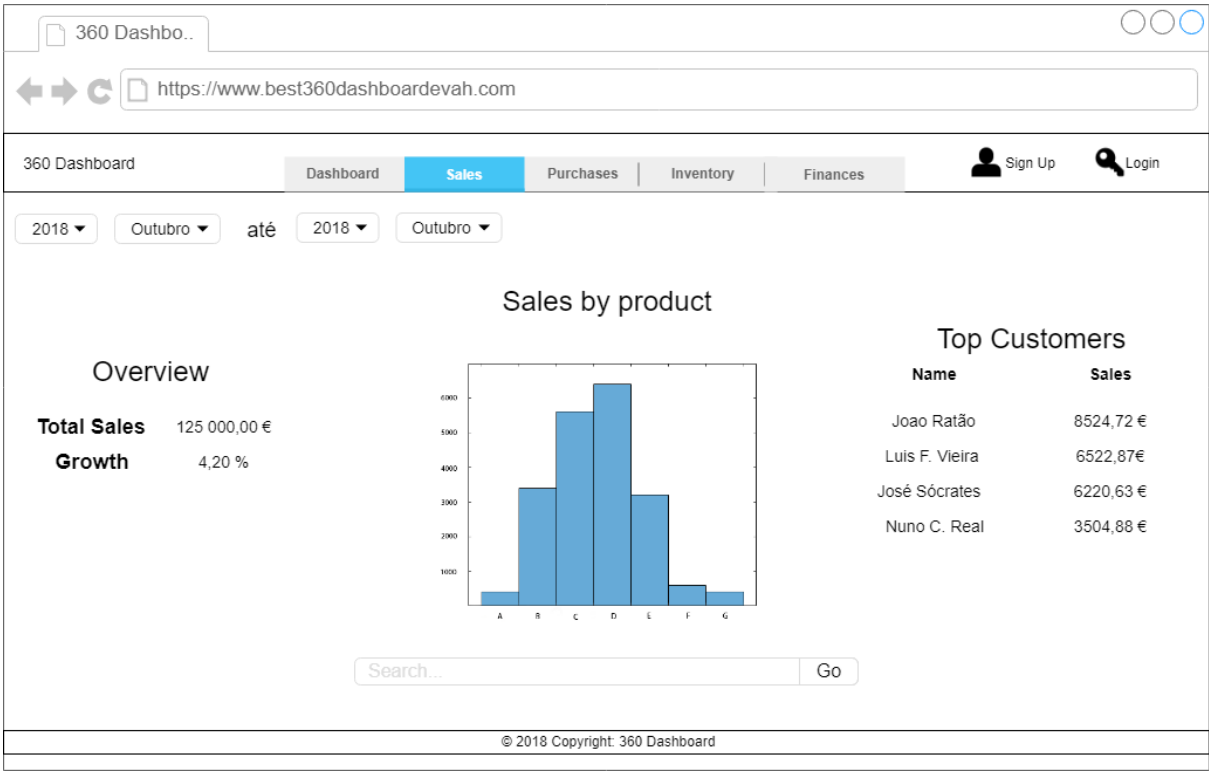


This core view is the responsible for the display of the main information from the *Inventory*. In this preview the inventory always work live with the actual status from the shop. As we can see, the *Inventory Value* shows the total value from the products in inventory.

Other important information that we can get in this view is the *Below Security Stock*. Besides this display, it'll be calculated the live level of security stock for each product and on this table it'll be displayed the products that are below required.

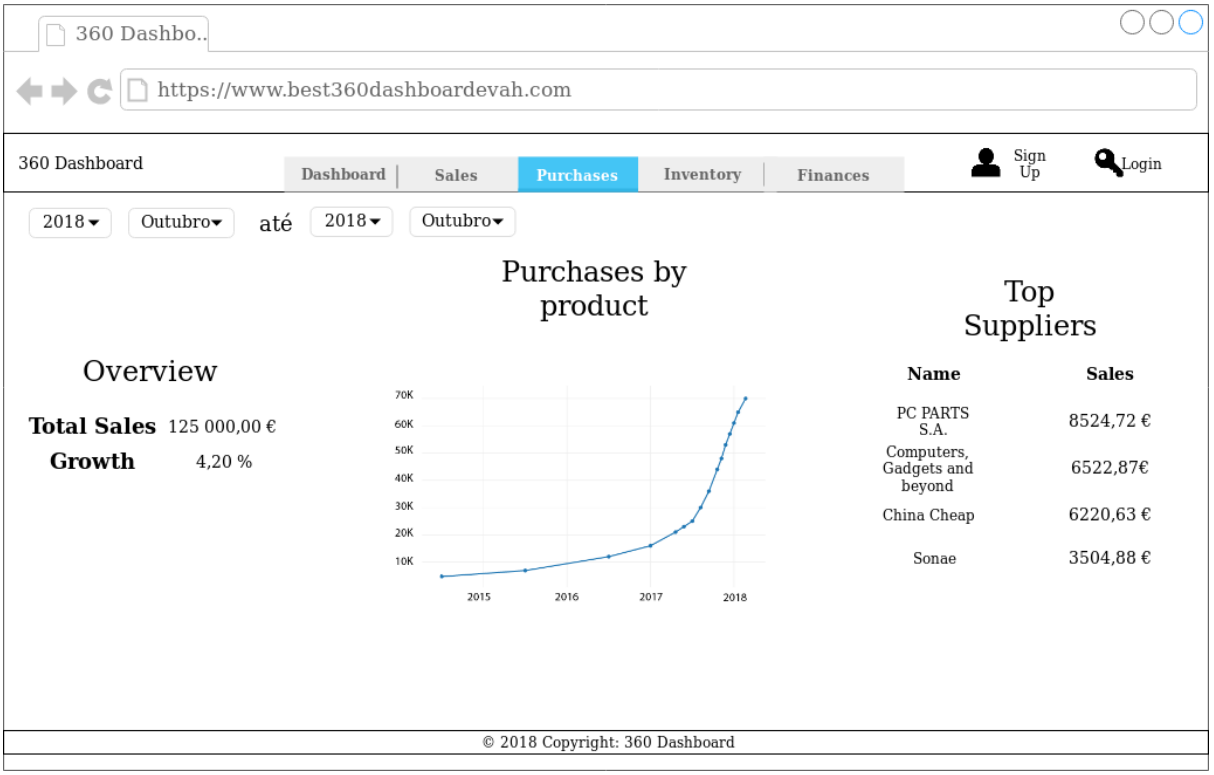
Finally we can also see the *Products in Inventory*, where each one will have his actual *Value per Unit*, *Quantity* and *Total Value*.

5.3 Sales



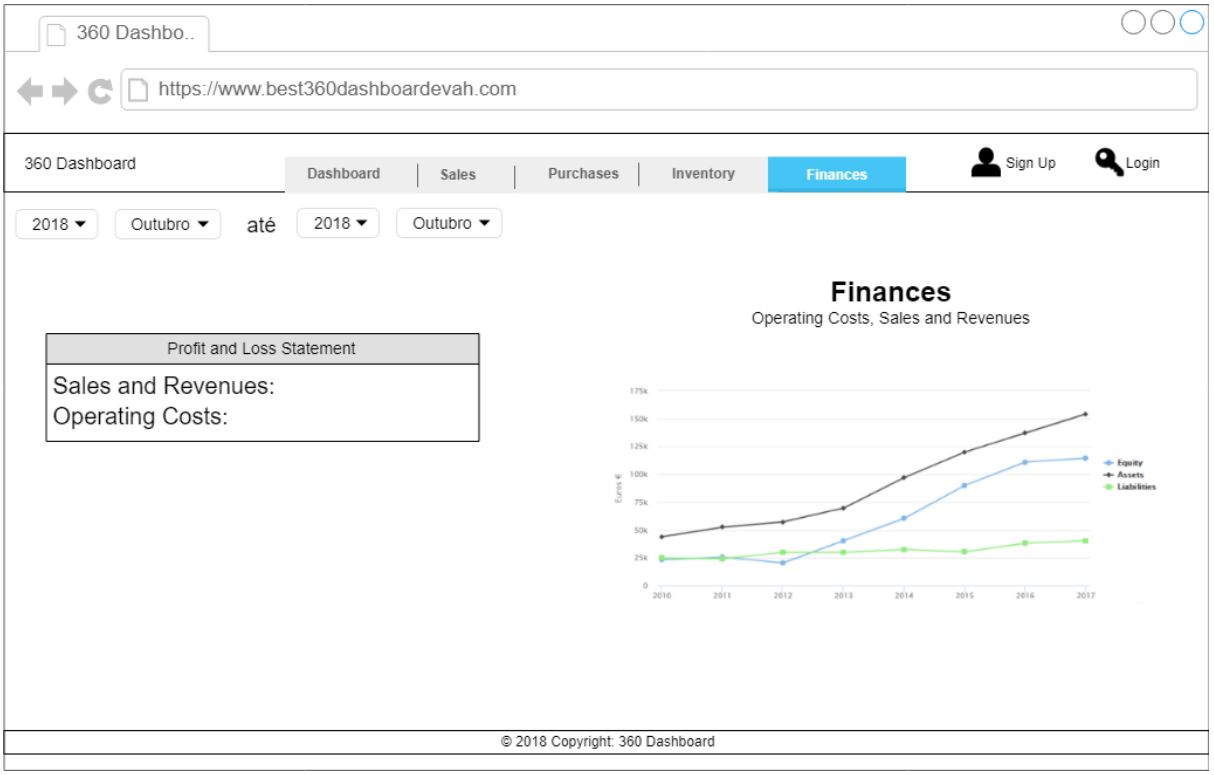
In the sales core view we can have access to information like total sales and company growth. In the middle we can take a look at a plot containing items (previously selected by the search bar) so we can compare profits. On the right, we can have access to the best customers, by purchases. All this, can be sectioned by date, in the top left of the screen.

5.4 Purchases



In the purchases core view we can have access to information like total purchases and company spending. In the middle we can take a look at a line chart so we can see how the company spends its resources over time. On the right, we can have access to the best suppliers, adding up all the sales that were made by them to our fictional store. All this, can be sectioned by date, in the top left of the screen.

5.5 Profit and Loss



In the Profit and Loss core view, we can have access to the sales and revenues and operating costs, according to a certain date, that can be altered in the top left of the screen. On the right, the plot will be generated according to the sales and revenues/operating costs, according to the date selected.

6. ERP Calls

Web Service	getPurchases
Description	Gets a list of all purchases
Related Core Views	Suppliers
Route	dash/products
Verb	GET
Input	N/A

Output	{
	"purchases" : [
	{
	"id": 0,
	"content": [
	{
	"productID": "productID",
	"quantity": "quantity"
	},
	{
	"productID": "productID",
	"quantity": "quantity"
	}
	],
	"supplierID": "supplierID",
	"orderDate": "orderDate",
	"expectedArrivalDate": "expectedArrivalDate",
	"actualArrivalDate": "actualArrivalDate",
	"isPaid": "isPaid",
	"paymentLimit": "paymentLimit"
	},
	{
	"id": "n",
	"content": [
	{
	"productID": "productID",
	"quantity": "quantity"
	},
	{
	"productID": "productID",
	"quantity": "quantity"
	}
	],
	"pplierID": "supplierID",
	"orderDate": "orderDate",

	"expectedArrivalDate": "expectedArrivalDate", "actualArrivalDate": "actualArrivalDate", "isPaid": "isPaid", "paymentLimit": "paymentLimit" }] }

7. Planning