

P3 - 360º Company Dashboard

PROJECT SPECIFICATIONS



Master in Informatics and Computing Engineering

Information Systems

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1 Project overview

Developed within the scope of the Information Systems course from 7th semester of MIEIC, this project aims to develop an web application of a 360° Company Dashboard in order to provide to a complete information of the company status, regarding data that is contained on the SAF-T (standard audit file for tax purposes), sales orders, purchases, inventory, and accounts payable. In addition, all the information must be shown in a user-friendly manner, using high level, mostly graphical, elements with possibility of further drill-down.

For the development and demonstration of this project, the Primavera ERP software will be used as an information source. In this way, the reliability and coherence of all data is ensured, making this web app a useful tool in decision aid.

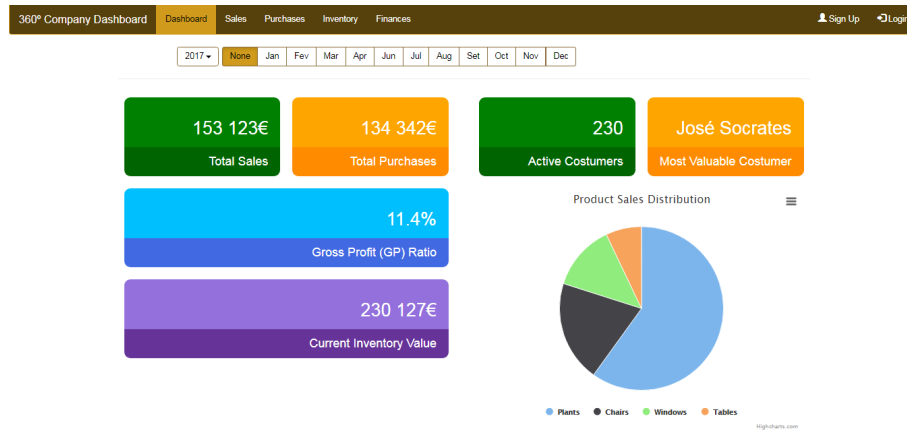
The app will be based on known business intelligence tools like SAP Business Objects, QlikView and Power BI, which will serve as a reference for what statistics are relevant for a business.

2 Functionalities/Features

Feature ID	Description	Purpose	Core View ID
F_001	Login	As a user, I want to be able to log in the dashboard so that I can see the information about my company	N/A
F_002	Logout	As a logged in user, I want to be able to log out of the dashboard	N/A
F_003	Overview	As a logged in user, I want to access an overview dashboard so that I can have a general idea of the state of my company	V_01
F_004	Sales Dashboard	As a logged in user, I want to access a sales dashboard so that I can have an overview of the state of the sales department	V_02
F_005	Purchases Dashboard	As a logged in user, I want to access a purchases dashboard so that I can have an overall notion about company's purchases	V_03
F_006	Inventory Dashboard	As a logged in user, I want to access an inventory dashboard so that I can view general information about the company's inventory	V_04
F_007	Financial Dashboard	As a logged in user, I want to access a financial dashboard so that I can see the state of the financial department	V_05
F_008	Change time frame	As a logged in user, I want to be able to change the time frame of the graphical information	V_02, V_03, V_04, V_05
F_009	Export PDF	As a logged in user, I want to be able to export the information as PDF so that I can print it	V_01, V_02, V_03, V_04, V_05
F_010	Customer list	As a logged in user, I want to be able to access the customer list	N/A
F_011	Suppliers list	As a logged in user, I want to be able to access the suppliers list	N/A
F_012	Inventory list	As a logged in user, I want to consult the stock of each product so that I know which need restocking	N/A
F_013	Inventory Value Details	As a logged in user, I want to see how the value of the company's stock is distributed with detail	N/A
F_014	Purchases list	As a logged in user, I want to see a list of purchases with various filter options	N/A
F_015	Sales list	As a logged in user, I want to see the list of sales with various filter options	N/A
F_016	Assets list	As a logged in user, I want to see the assets details list with various filter options	N/A
F_017	Liabilities list	As a logged in user, I want to see the liabilities details list with various filter options	N/A

3 Information Architecture

3.1 Overview (V_01)



3.1.1 Inward Paths

- Sign-in
- Top navigation bar

3.1.2 Outward Paths

- Drill down information about Sales, Purchases, Finances and Inventory
- Change time frame for the information shown
- Export as PDF the product sales distribution

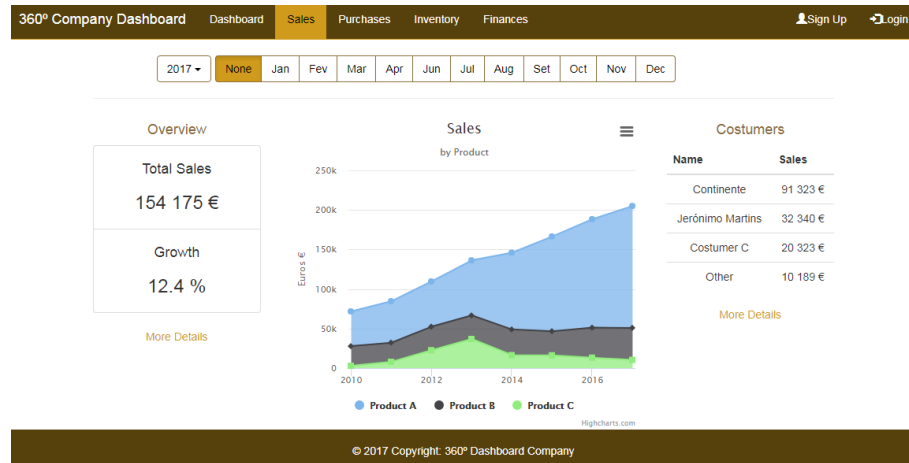
3.1.3 User and Business Goals

- Quick view of the company state
- Manage tool for the company
- Company overview

3.1.4 Elements of the core

- Total sales
- Total purchases
- Active costumers
- Most valuable costumer
- Gross Profit ratio
- Inventory value at the end of period specified
- Product sales distribution

3.2 Sales Dashboard (V_02)



3.2.1 Inward Paths

- Sign-in
- Top navigation bar

3.2.2 Outward Paths

- Change time frame for the information shown
- Drill down to know more about the sales and costumers in the period specified
- Dowload of chart of company's sales evolution (image and pdf)

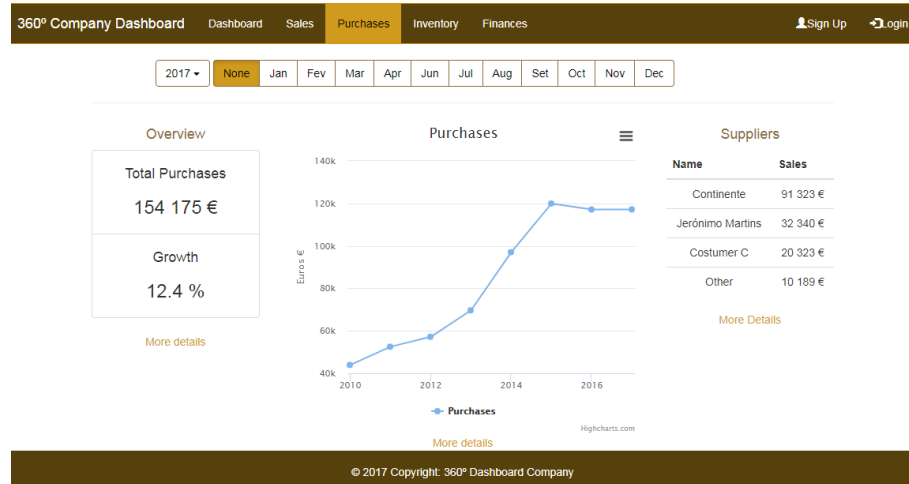
3.2.3 User and Business Goals

- Quick view of the company's sales status in period specified
- View of top costumers of company in period specified

3.2.4 Elements of the core

- Total sales of the period specified
- Sales growth percentage of the period specified
- Top costumers of the period specified

3.3 Purchases Dashboard (V_03)



3.3.1 Inward Paths

- Sign-in
- Top navigation bar

3.3.2 Outward Paths

- Change time frame for the information shown
- Drill down to know more about the purchases and the suppliers in the period specified
- Dowload of chart of company's purchases evolution

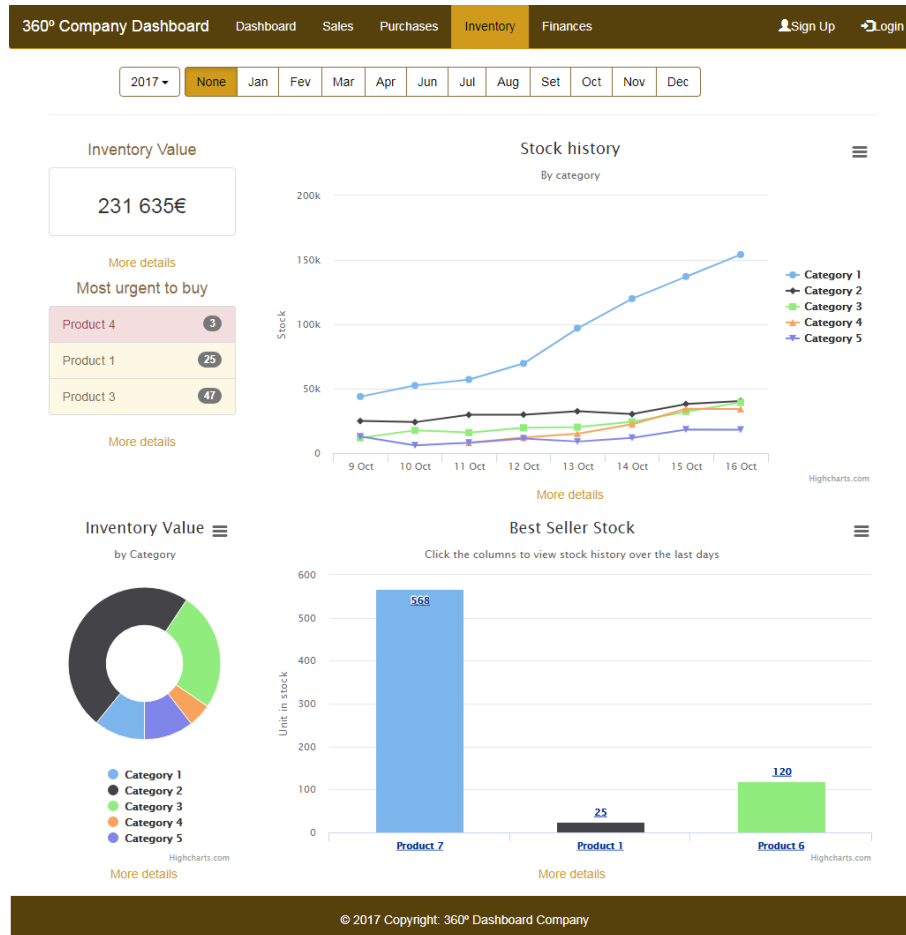
3.3.3 User and Business Goals

- Quick view of the company's sales status in the period specified
- View top suppliers of company in the period specified

3.3.4 Elements of the core

- Total purchases, purchases growth percentage in the period specified
- Chart of purchases evolution in the period specified
- Top suppliers of the period specified

3.4 Inventory Dashboard (V_04)



3.4.1 Inward Paths

- Sign-in
- Top navigation bar

3.4.2 Outward Paths

- Change time frame for the information shown
- Drill down to know more about the stock available, which product are running low, and inventory value (at the end of period)
- Dowload of chart of stock available evolution, inventory value and best seller products' current stock (image and pdf)

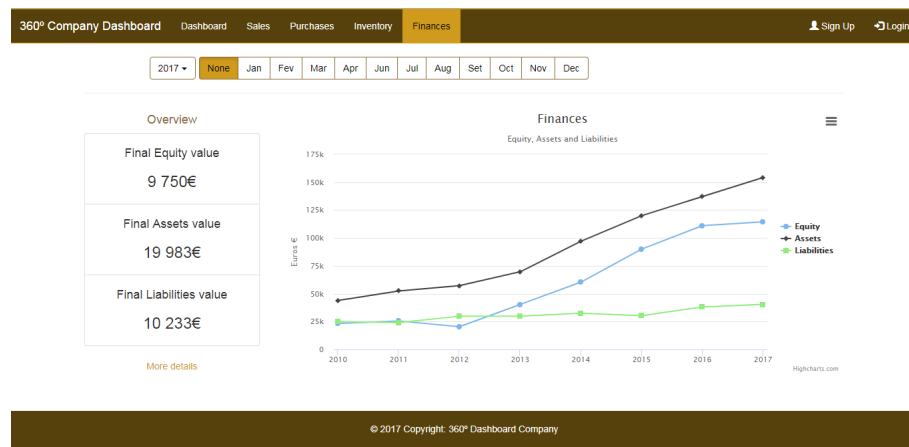
3.4.3 User and Business Goals

- Quick view of state and evolution of inventory
- Manage tool for the inventory

3.4.4 Elements of the core

- Inventory Value
- List of products with stock lower than minimum
- Charts of stock available evolution, inventory value distributed by product and current stock of best seller products

3.5 Finances Dashboard (V_05)



3.5.1 Inward Paths

- Sign-in
- Top navigation bar

3.5.2 Outward Paths

- Change time frame for the information shown
- Drill down to know more about equity, assets and liabilities (at the end of period)
- Download of chart of available evolution (image and pdf)

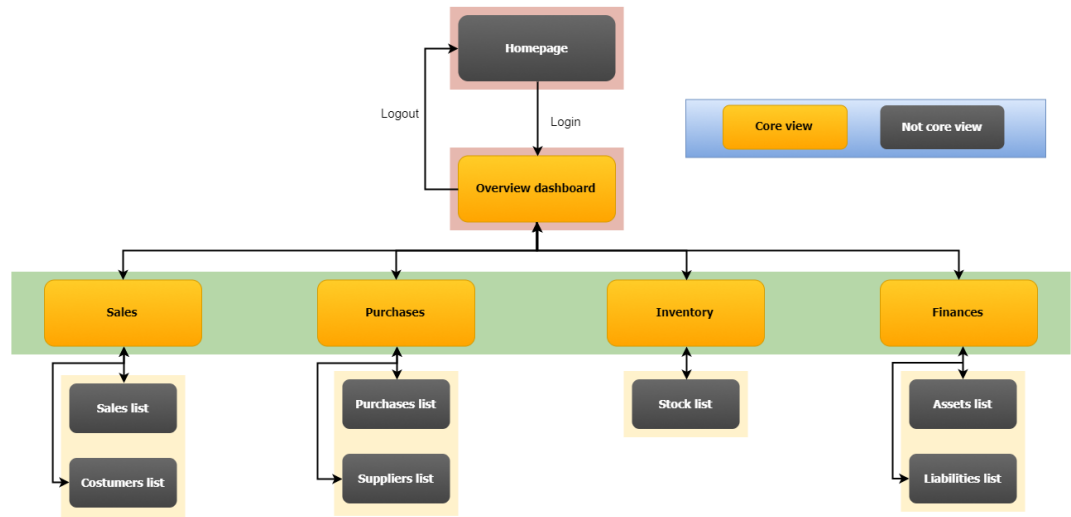
3.5.3 User and Business Goals

- Quick view of finance status of company
- Manage tool for the financial department

3.5.4 Elements of the core

- Equity, assets and liabilities values in the end of period
- Chart of equity, assets and liabilities values evolution

4 Sitemap



5 Interoperability with Primavera

Webservice ID	getStockProducts
Webservice Description	Fetches a list with all products in stock in specified date and category
Related Core View(s)	Inventory dashboard
Route+Verbs	host/getStockProducts?date=X&category=Y
Method	GET
Input Example	host/getStockProducts?date=2017-01-31&category=Drinks
Expected Output	<pre>{ "products" : [{ "id" : "1", "name" : "Caps", "category" : "Drinks", "amount" : "323", "unit_value" : "0.3", "date_purchased" : "2017-01-09", ... }, ...] }</pre>

Webservice ID	getProductsOutOfStock
Webservice Description	Fetches a list with all products which are running low on stock
Related Core View(s)	Inventory dashboard
Route+Verbs	host/getProductsOutOfStock
Method	GET
Input Example	host/getProductsOutOfStock
Expected Output	<pre>{ "products" : [{ "id" : "1", "name" : "Coca_Cola", "category" : "Drinks", "amount" : "25", "unit_value" : "1.5", "date_purchased" : "2017-10-09", "minimum_amount" : "120", ... }, ...] }</pre>

Webservice ID	getPurchases
Webservice Description	Fetches a list with all purchases in specified date interval and product category
Related Core View(s)	Purchases dashboard
Route+Verbs	host/getPurchases?initDate=X&endDate=Y&category=Z
Method	GET
Input Example	host/getPurchases?initDate=2017-01-01&endDate=2017-01-31&category=Drinks
Expected Output	<pre>{ "purchases" : [{ "id" : "1", "name" : "Agua_das_pedras", "category" : "Drinks", "amount" : "323", "unit_value" : "5.1", ... }, ...] }</pre>

Webservice ID	getPurchasesFromSupplier
Webservice Description	Fetches a list with all purchases from a supplier in time interval specified
Related Core View(s)	Purchases dashboard
Route+Verbs	host/getPurchasesFromSupplier?initDate=X&endDate=Y&supplier=Z
Method	GET
Input Example	host/getPurchasesFromSupplier?initDate=2017-01-01&endDate=2017-01-31&supplier=Luso
Expected Output	<pre>{ "purchases" : [{ "id" : "1", "name" : "Agua_de_nascente_33_cl", "category" : "Drinks", "amount" : "323", "unit_value" : "5.1", ... }, ...] }</pre>

5.1 Data obtained through the SAF-T

All data not relating to purchases or inventory will be obtained through the SAF-T. That data includes:

- The identification of suppliers and costumers
- The identification of products and services sold
- The relevant tax documents: invoices, simplified invoices, debit and credit notes
- Transport documents