

# **P3 - 360° Company Dashboard**

## **Project Specification**

*Integrated Master in Informatics and Computer Engineering*

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# 1. Project Overview

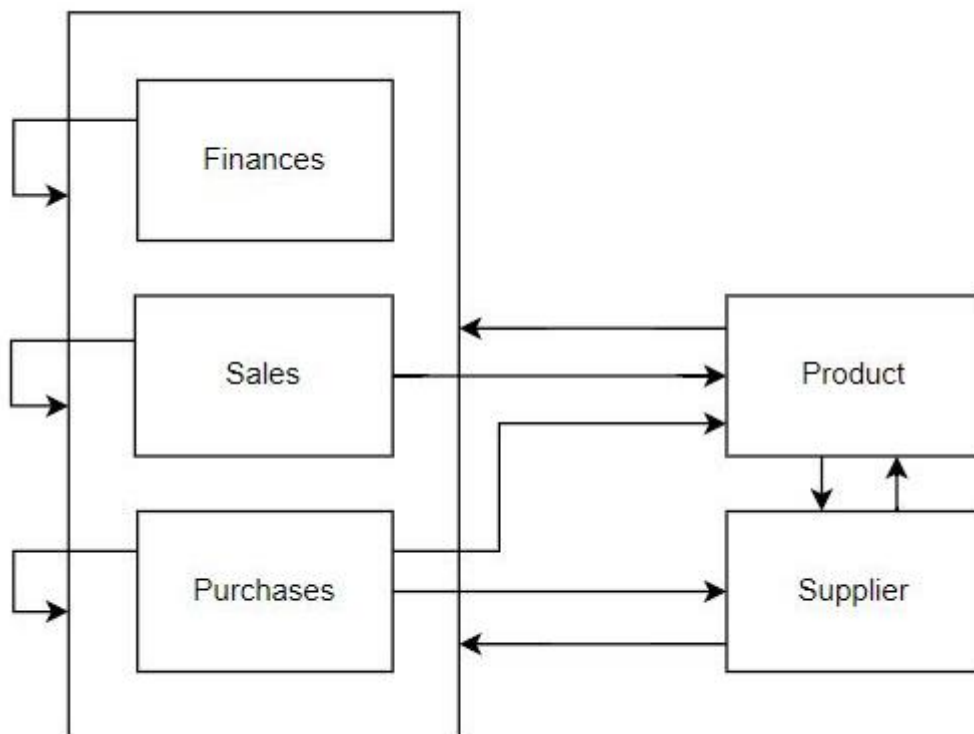
The theme of this project is 360° Company Dashboard. The project's objective is to develop a web app which provides information about the company status. The project will take a SAF-T file as input and show information about sales and the company's financial situation. It'll also have information about the company's purchases, which will be accessed through Jasmin's API. There will also be shown information relative to each product, so that the user can analyse how it has been doing in terms of sales, and to each supplier.

## 1.1. Functional Architecture

We decided to divide the information between the following sections:

- **Finances:** To allow the user to evaluate the company's financial position, by checking the balance sheet and other variables related to the income statement.
- **Sales:** To allow the user to check how the sales are doing, by seeing the top sold products and top consumers.
- **Purchases:** To allow the user to check on its most purchased products and top suppliers.
- **Product:** To allow the user to check a product's information.
- **Supplier:** To allow the user to check a supplier's information.

The following **sitemap** specifies how these pages interact with each other:



**Figure 1:** Sitemap of the project.

## 2. Functionalities

### 2.1. Finances

#### 2.1.1. Functionalities

- **Balance Sheet:** is a financial statement that reports a company's assets, liabilities and shareholders' equity at a specific point in time and provides a basis for computing rates of return and evaluating its capital structure.
- **Sales:** refers to the earnings that the company got simply by selling products.
- **Cost of Goods Sold (COGS):** refers to the direct costs of producing the goods sold by a company. This amount includes the cost of the materials and labour directly used to create the good. It excludes indirect expenses, such as distribution costs and sales force costs.
- **Gross Profit:** is the gross margin of profit, calculated by subtracting the cost of goods sold from the sales.
- **EBITDA:** Earnings Before Interest, Taxes, Depreciation and Amortization.
- **EBIT:** Earnings Before Interest and Taxes.
- **Net income:** income that the company earned after subtracting all the expenses and costs, related to taxes and many other variables, from the gross profit.

### 2.2. Sales

#### 2.2.1. Functionalities

- **List of top products:** a list of top products with a description, number of units sold, price per unit and total earnings with that product.
- **List of top consumers:** a list of top consumers with their name, the most bought product and the total spent.
- **Sales.**
- **Cost of Goods Sold (COGS).**
- **Gross Profit.**
- **Accounts receivable:** refers to the money in credit that the company still has to receive from its customers.

## 2.3. Purchases

### 2.3.1. Functionalities

- **List of top purchases:** a list of top purchases with a name, number of units sold, price per unit and total earnings with that product.
- **List of top suppliers:** a list of top suppliers with their name, the most bought product and the total spent.
- **Total spent.**
- **Accounts payable:** refers to the money in credit that the company has to pay to its suppliers.

## 2.4. Product

### 2.4.1. Functionalities

- **Name and ID.**
- **Product's description.**
- **Product's supplier.**
- **Quantity sold.**
- **Quantity in stock.**
- **Graph of sales of the product over the year.**

## 2.5. Supplier

### 2.5.1. Functionalities

- **Name and ID.**
- **Address.**
- **Contacts** (email and phone number).
- **List of products supplied:** a list of products supplied with a id, name, number of units bought and price per unit.
- **Total units bought.**
- **Total spent.**

## 3. Information Architecture

### 3.1. Core\_Financial\_Area

#### User and Business Goals

- View to be used as a financial management tool.
- View in detail the company's financial status.


#### Inward Paths/Trigger Words

- Navbar navigation
- Sign-in/ Sign out

Financial area

Sales

Purchases



SNIF

Profit / Loss

+ Sales50.000\$

- Cost of good sold30.000\$

Gross Profit20.000\$

+ EBITDA17.000\$

- Depreciation2.000\$

- Amortization3.000\$

EBIT12.000\$

+ Gross profit20.000\$

- Expenses3.000\$

EBITDA17.000\$

+ EBIT12.000\$

- Interest2.000\$

- Taxes4.000\$

Net income6.000\$

Balance Sheet

Assets

11 Caixa13.000\$

12 Depósitos à ordem25.000\$

21 Clientes10.000\$

Total assets48.000\$

Liabilities

63 Gastos com o pessoal2.000\$

22 Fornecedores15.000\$

Total liabilities17.000\$

Equity31.000\$

#### Outwards Paths/ to action

- Provide the user a financial view of the company's current state.
- See **Sales** and **Purchases** pages.

## 3.2. Core\_Sales

### User and Business Goals


#### Inward Paths/Trigger Words

- Navbar navigation
- Sign-in/ Sign out
- Products name

- View to be used as a sales management tool.
- View in detail the company's sales status.

#### Outwards Paths/ to action

- Provide the user with detailed data of the company's sales state.
- Drill down to know more about each **Product**.
- See **Financial area** and **Purchases** pages.



## Financial area

## Sales

## Purchases

+ Sales	50.000\$
- Cost of good sold	30.000\$
<b>Gross Profit</b>	<b>20.000\$</b>

**Accounts receivable** 17.000\$

### Top Products

Top	Product	Units sold	Price per unit	Total earned
1	Lenços de Papel folha dupla	120.000	3\$	360.000\$
2	Lenços de Papel menta	80.000	4\$	320.000\$
3	Lenços de Papel ultra suave	70.000	3\$	210.000\$

### Top Consumers

Top	Consumer	Most bought product	Total spent
1	SONAE	Lenços folha simples	500.000\$
2	Lidle	Lenços folha dupla	300.000\$
3	Pingo Doce	Lenços ultra suave	250.000\$

### 3.3. Core\_Purchases

#### User and Business Goals

- View to be used as a purchase's management tool.
- View in detail the company's purchases status.

#### Inward Paths/Trigger Words

- Navbar navigation
- Sign-in/ Sign out
- Product's name
- Supplier's name

Financial area

Sales

Purchases

SNIF

Total spent

20.000\$

Accounts payable

7.000\$

Top Purchases

Top	Product	Units sold	Price per unit	Total earned
1	Lenços de Papel folha dupla	120.000	3\$	360.000\$
2	Lenços de Papel menta	80.000	4\$	320.000\$
3	Lenços de Papel ultra suave	70.000	3\$	210.000\$

Top Suppliers

Top	Supplier	Most bought product	Total spent
1	Renova	Lenços folha simples	500.000\$
2	kleenex	Lenços folha dupla	300.000\$
3	Softy's	Lenços ultra suave	250.000\$

#### Outwards Paths/ to action

- Provide the user with detailed data of the company's purchases state.
- Drill down to know more about each **Product** and **Supplier**.
- See **Sales** and **Financial area** pages.



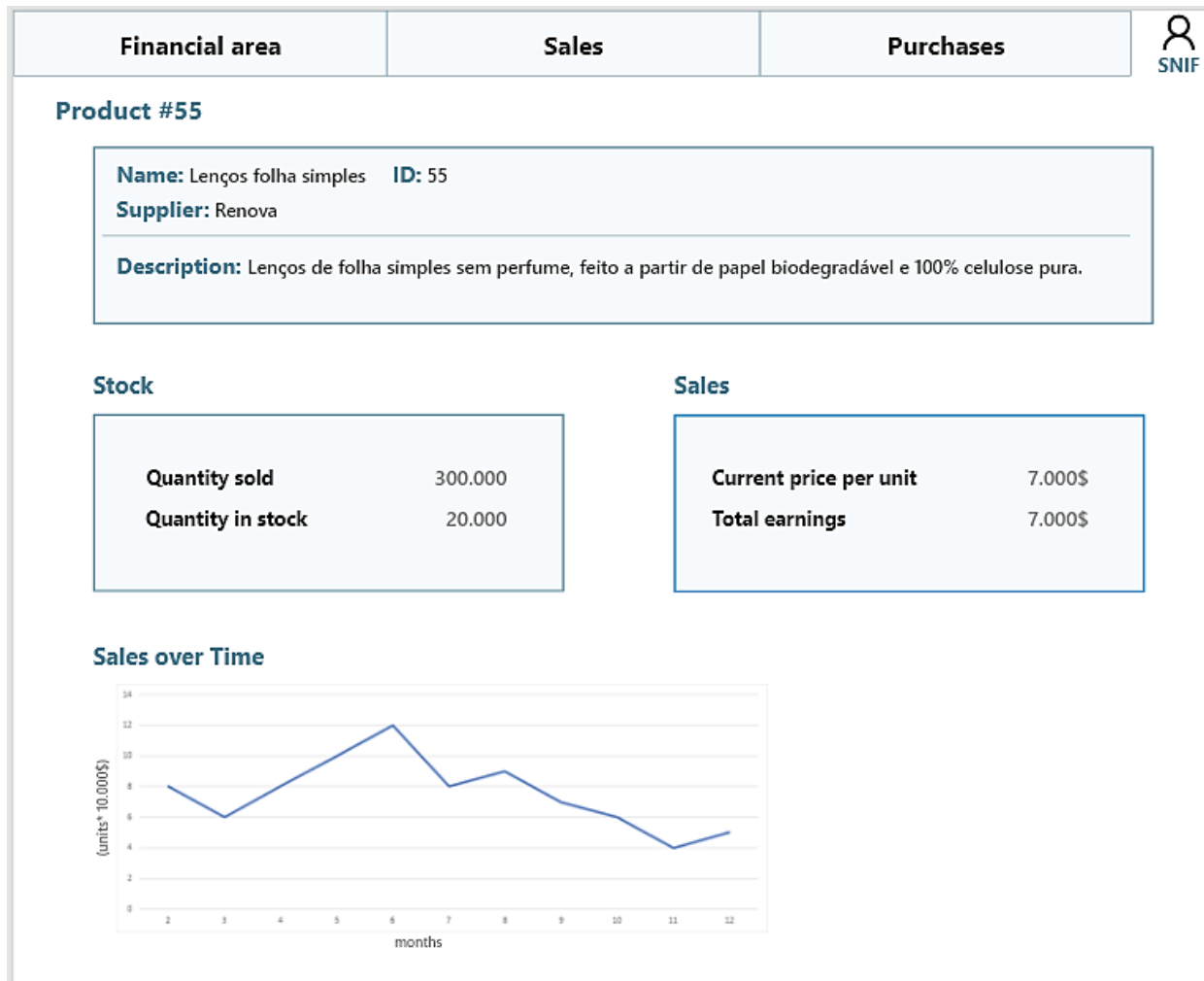
### 3.4. Core\_Product

#### User and Business Goals

- View to be used as a product management tool.
- View in detail a product's information.

#### Inward Paths/Trigger Words

- Navbar navigation
- Sign-in/ Sign out
- Supplier's name



#### Outwards Paths/ to action

- Provide the user with detailed data of a specific product.
- Drill down to know more about the **Supplier**.
- See **Financial area**, **Sales** and **Purchases** pages.


### 3.5. Core\_Supplier

#### User and Business Goals

- View to be used as a supplier management tool.
- View in detail a supplier's information.

#### Inward Paths/Trigger Words

- Navbar navigation
- Sign-in/ Sign out
- Product's name

Financial area	Sales	Purchases																				
<div>  <span>SNIF</span> </div>																						
<b>Supplier #3</b> <div> <p> <b>Name:</b> Kleenex      <b>ID:</b> 3      <b>Phone:</b> 0800 626008  <b>Email:</b> kleenex1uk@gmail.com  <b>Address:</b> Kimberly-Clark Ltd Tower View,            West Malling Kent, ME19 4HA         </p> </div>																						
<b>Product supplied</b> <table border="1"> <thead> <tr> <th>ID</th> <th>Product</th> <th>Units bought</th> <th>Price per unit</th> </tr> </thead> <tbody> <tr> <td>12</td> <td>Lenços de Papel folha dupla</td> <td>120.000</td> <td>3\$</td> </tr> <tr> <td>13</td> <td>Lenços de Papel pocket size</td> <td>80.000</td> <td>4\$</td> </tr> <tr> <td>14</td> <td>Lenços de Papel ultra suave</td> <td>70.000</td> <td>3\$</td> </tr> <tr> <td>14</td> <td>Lenços de Papel ultra suave extraLarge</td> <td>90.000</td> <td>2\$</td> </tr> </tbody> </table>			ID	Product	Units bought	Price per unit	12	Lenços de Papel folha dupla	120.000	3\$	13	Lenços de Papel pocket size	80.000	4\$	14	Lenços de Papel ultra suave	70.000	3\$	14	Lenços de Papel ultra suave extraLarge	90.000	2\$
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<b>Total units bought</b> 360.000		<b>Total spent</b> 1.070.000\$																				

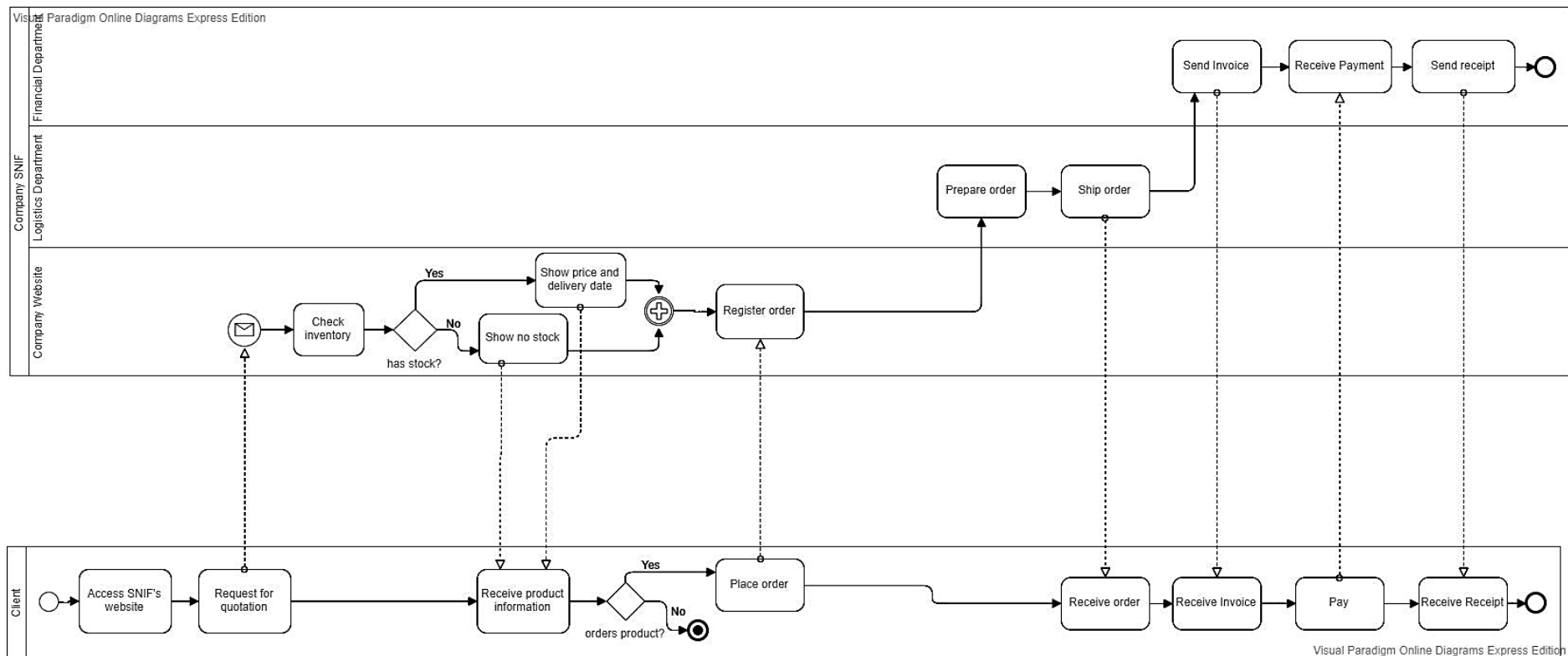
#### Outwards Paths/ to action

- Provide the user with detailed data of a specific supplier.
- Drill down to know more about each **Product**.
- See **Financial area**, **Sales** and **Purchases** page.

## 4. BPMN Flow

### 4.1. Process of selling a product

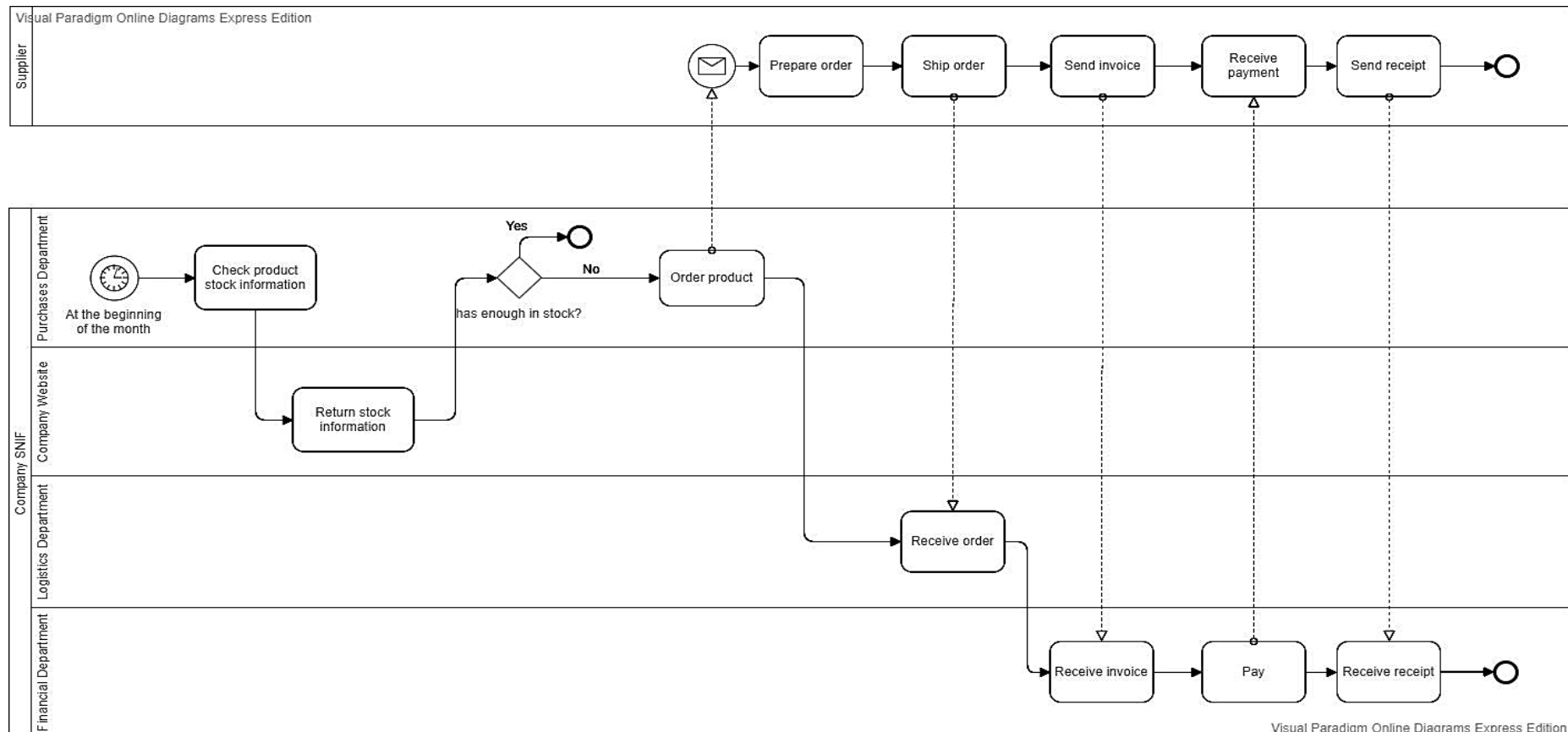
We decided to build our BPMN diagram based on how the company's sales process generally works, which is not directly applied to our project, since our theme involves only showing information and that is not exactly a business process. As a result, the following BPMN describes the process of a client ordering a product to our company, through a hypothetical website that would work as an online shop.



**Figure 2:** BPMN flow for the process of selling a product.

## 4.2. Process of purchasing a product

We also developed a BPMN diagram to describe the company's purchases process, which is also not directly applied to our project, like it was explained above. The following BPMN describes the process of the purchases department ordering a product to a supplier, which also uses the website to check a product's stock.



**Figure 3:** BPMN flow for the process of purchasing a product.

## 5. Planning

### 5.1. Gantt Chart

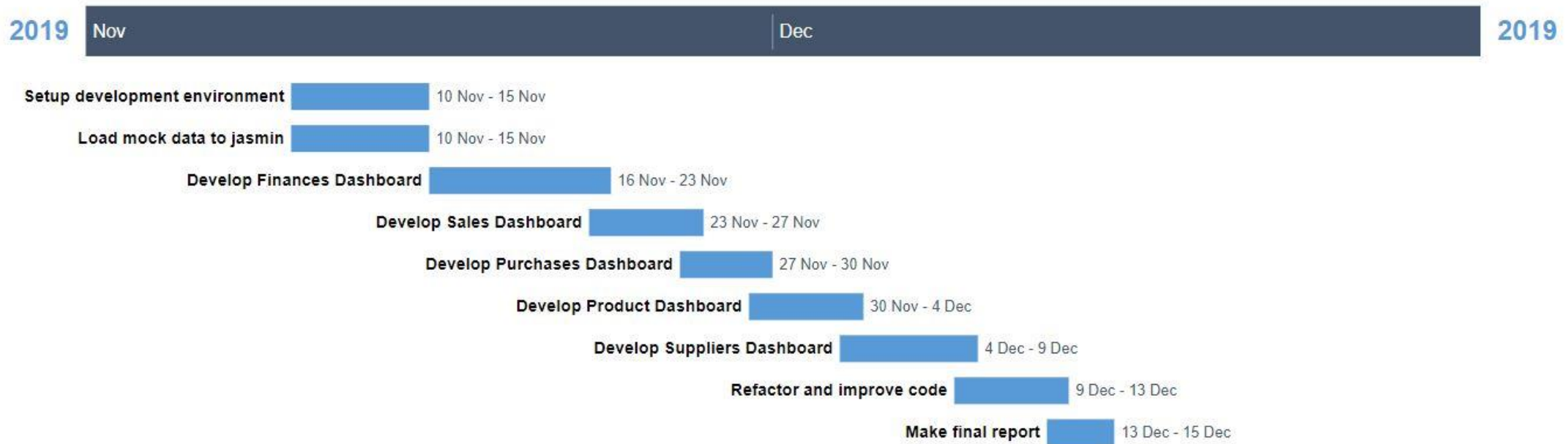


Figure 4: Gantt chart of the project development