Sales Order Picking

Project Specifications

Group B

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Project overview

In general, this project consists of creating a Web App that allows users to make a picking process of a sales order.
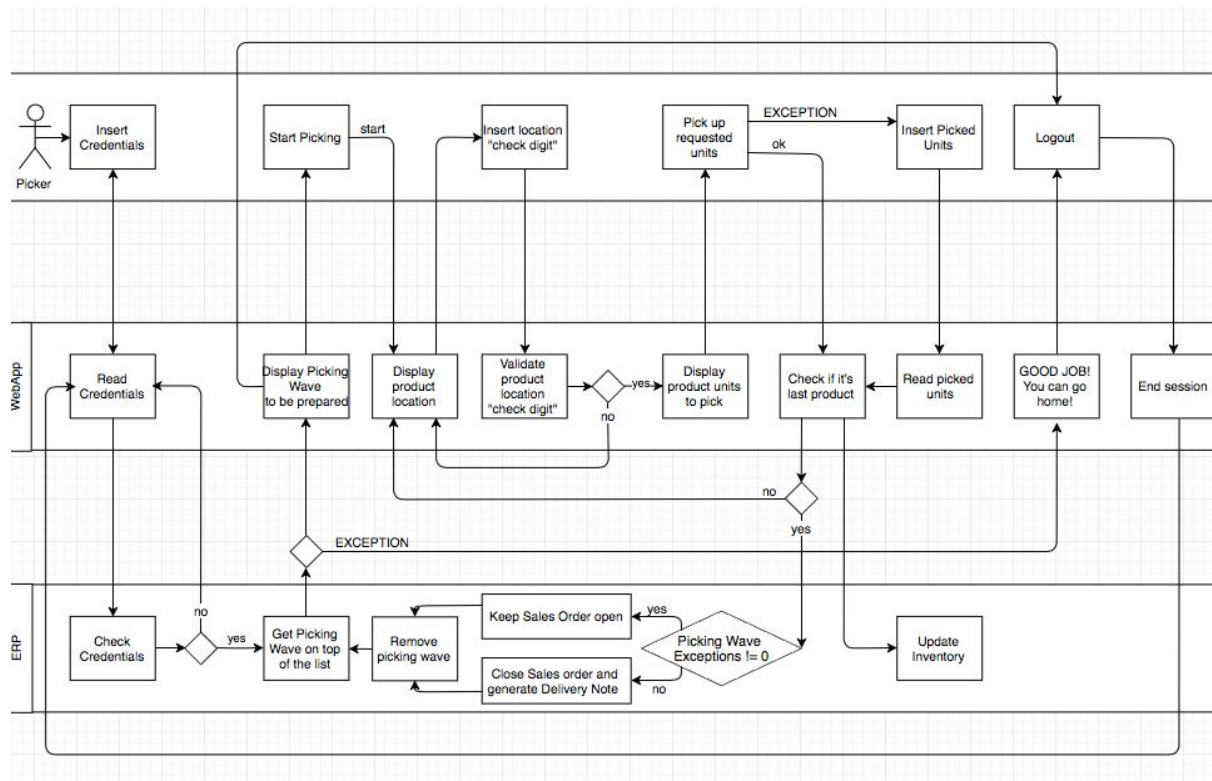
It is considered that the Web App has two types of users, namely the picker and manager, in which the latter is responsible for assigning sales orders to the existing pickers and the former receives the appointed set of sales orders. Then, our system calculates the proper route to be followed by the picker to collect the different products of each picking wave.

This product is based on the process that is implemented in Sonae's Modelo Continente, allowing the pickers to view the best route to pick several products that are listed in a picking wave, as well as reduce the decision-making load of the picking process and increase productivity.

More specifically, we opted for the PBS process, which stands for Picking by Store. In this process, each sales order corresponds to an order commissioned by a store, which includes several products in various quantities. Pickers are appointed to one or more sales orders, picking the products of several sales orders at a time. This means, once all the products in a picking wave have been picked, the picker moves on to the next picking wave and so on until all have been finished.

Functionalities/Features

BPMN for Picker

Picker Functionalities/Features

1.   Picker views picking wave to be prepared
The picker should be able to see the products of the picking wave he will prepare.

2.   Picker enters location of a product
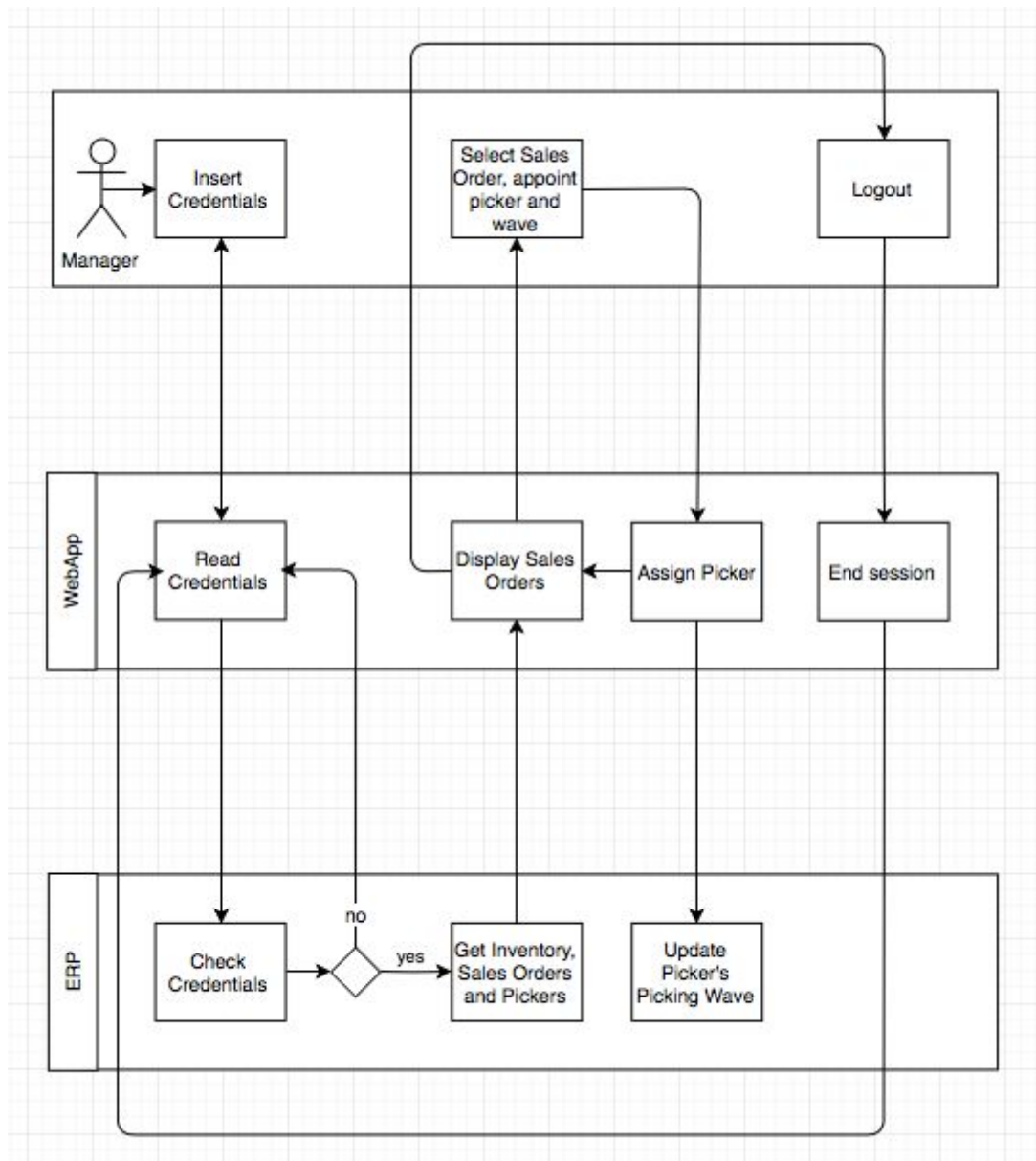The user should be able to enter the code of the location of the product that he is being told to pick.

3.   Picker views product units to pick
The picker should be able to view the quantity of a product he will pick.

4.   Picker checks picked products
The picker should be able to check a product as picked.

BPMN for Manager

Manager Functionalities/Features

1.   Manager views sales orders and pickers

The webapp should be able to display all the available sales orders and all available pickers to the manager.

2.   Manager views Inventory

The manager should be able to view all the available and non-available inventory in the warehouse, as well as the reference, name and quantity of each product.

3.   Manager creates picking wave
The manager should be able to create picking waves.

4.   Manager appoints picking waves to pickers
The manager should be able to assign picking waves to a picker.

5.   Manager receives a Delivery Note
The manager should be able to receive a delivery note for each sales order that is completed by a picker.

Other Functionalities/Features

1.   User Authentication
The user (manager or picker) can authenticate in the webapp.

2.   Calculate best route for a picking wave
The route to be executed is calculated with the entry point as the reception and the exit point as the delivery location, passing by all locations.

Information Architecture

Picker

1. **Picker views picking wave to be prepared**

2. **Picker enters location of a product**

3. Picker views product units to pick

Logo   Wave   Logout

Product Location ✓

PRODUCT XPTO   **20/11/2018**

Quantity: 200 units

OK
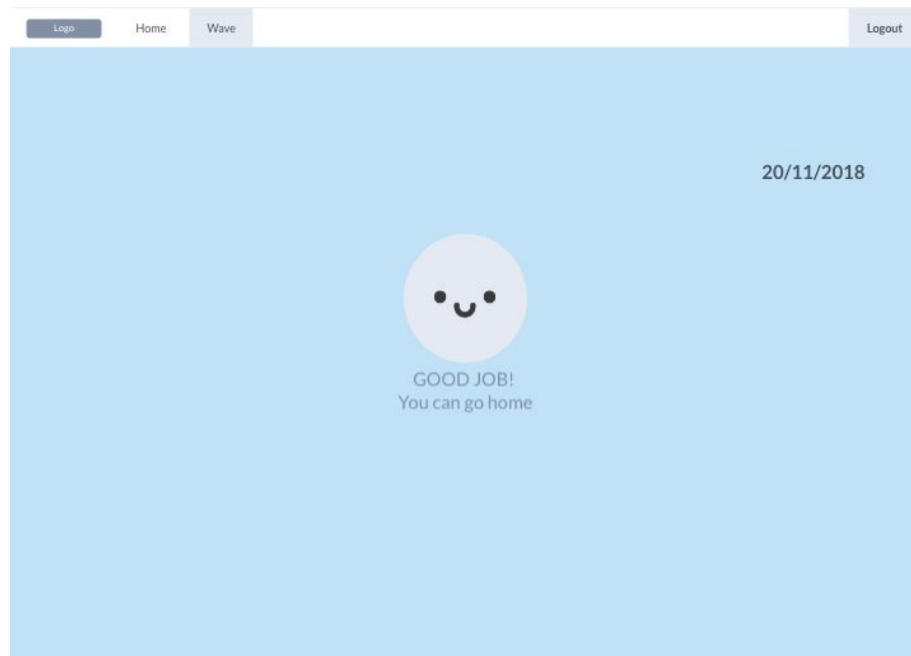
Not enough units

Logo   Wave   Logout

Product Location ✓

PRODUCT XPTO   **20/11/2018**

Quantity: 200 units

Picked: 150 units

OK

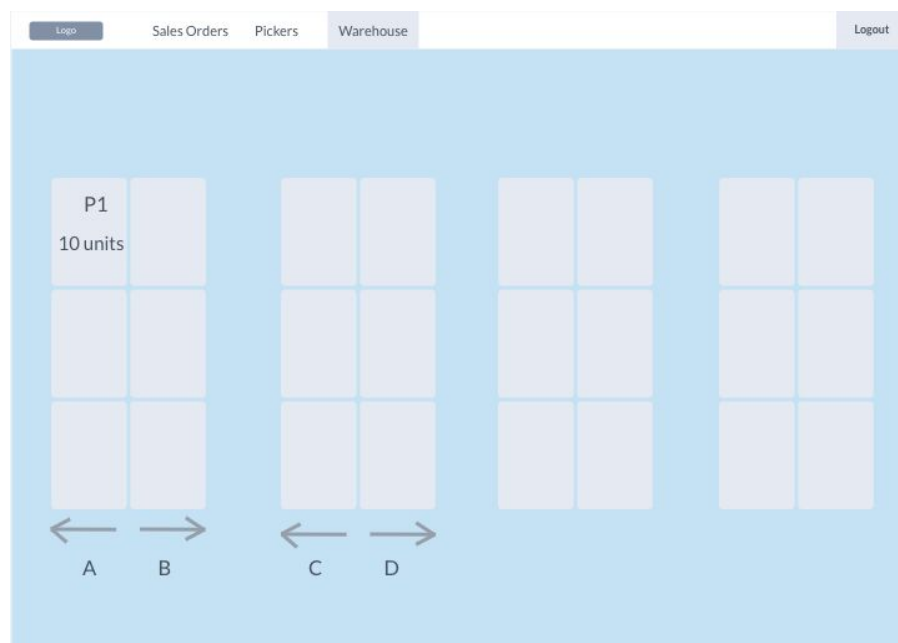### 4. Picker finishes all picking waves

Manager

1. Manager views Inventory

2.   Manager creates picking waves and appoints them to pickers

3.   Manager views all pickers

Other functionalities/features

1. User Authentication

Sign up

Lorem ipsum dolor sit amet, consectetur
adipiscing elit. In nec nibh vitae...

Your name

Email

Password

Sign up

By signing up you agree to our
Terms & Conditions

Sign in

Lorem ipsum dolor sit amet, consectetur
adipiscing elit. In nec nibh vitae...

Email

Password

Sign in

Forgot your password?

Planning (Gantt Project)

In order to organize the development of the project, we use a tool that allows us to organize the different tasks in temporal terms and assign them to the team's elements. It is also considered that the effort of the task is proportional to the size of the rectangles.

	% Complete	November 2018					December 2018			
		26	4	11	18	25	2	9	16	23
SINF	**0%**									
▼ Sales Order Picking	0%									
Project Setup	0									
Manager views sales orders	0									
Manager creates picking wave	0									
Manager appoints picking wave to pickers	0									
User Authentication	0									
Picker views picking wave to be prepared	0									
Picker views product units to pick	0									
Picker checks picked products	0									
Calculate best route for a sales order	0									
Manager views inventory	0									
Manager receives Delivery Note	0									
Picker enters location of a product	0									
Manager views all available pickers	0									
Test Project	0									