

Project plan: Supermarket FreshChoice BV case

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Introduction

In this project plan document we'll be talking about what our group wants to make for our Supermarket FreshChoice BV project. We're planning is to create a website that improves multiple operations in the FreshChoice supermarket chain. Our focus during this project are on inventory management, labor management and customer service. With the improvements we've planned, we want to make daily tasks easier for the costumers and the staff. This document will go in depth about how we plan to build and organize this project, what features we will include and how we will make sure everything works.

Project overview

FreshChoice is a small supermarket chain near Eindhoven that focuses on local products and community support. However, it faces several challenges in its daily operations, mainly with inventory management, labor management, and customer service.

Keeping track of stock is difficult, especially perishable goods. Sometimes there's too much, leading to waste, and other times too little, which frustrates customers. Staff scheduling is also inefficient since it's done manually in Excel and depends on one person, making it hard to manage shifts across multiple stores. On top of that, customer service could be improved by offering faster checkout options or allowing people to order groceries online or through an app for pickup.

This project focuses on finding IT solutions to these problems, helping FreshChoice work more efficiently, support its employees better, and make shopping easier for customers.

Objectives

Designing and implementing a working version of the Supermarket web-based app with an admin dashboard within four weeks, covering at least three ICT topics, for in-depth analysis, design, and implementation.

Points for the project

- An Admin Dashboard: A single dashboard that combines CRUD operations for managing stocks, schedules, shifts for employees, data insights and administrative control.
- Labor management: Automation for schedule maintenance, adding new roles like "manager" to enhance the efficiency of managing stocks in different locations.

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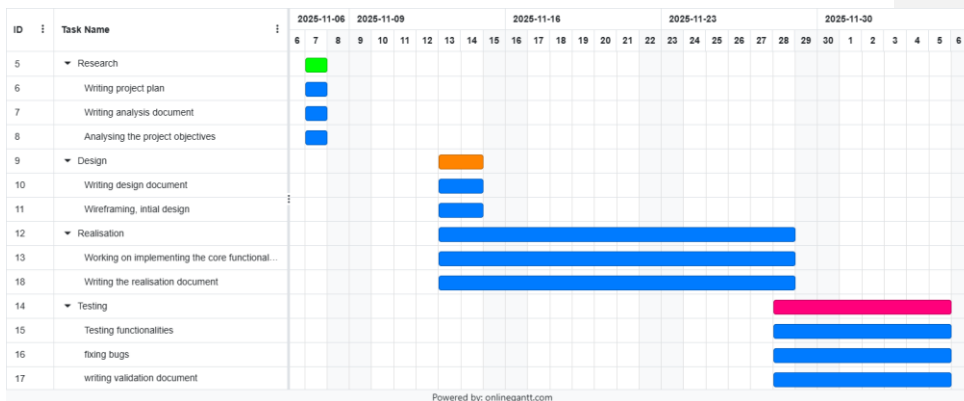
- Customer service: A pick-up feature, where customers could choose one of the locations of the supermarket.

Main Questions

1. What digital solution could help the supermarket avoid overstocking, which leads to waste? How could the inventory state be maintained?
2. How could employees' schedules be managed more efficiently and how could the tension of one person managing the supplies in each location be reduced?
3. What could be done differently for improving customer service? How could long checkout lines be avoided?.

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Planning



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Breakdown

(Week 1) Research & Analysis

During this week, we will focus on analyzing the project. We will name the stakeholders and identify their needs. We will also define the functional, non-functional and technical requirements for the project. The main goal of this phase is to clearly understand the problem and set the foundation for the solution.

(Week 2) Design Phase

In this week, we will work on writing the design document, planning the system architecture, and creating wireframes for the main components. A simple prototype will be developed to visualize how the final application will look and function.

(Week 3-4) Realisation Phase

The main development phase will take place in weeks 3 and 4. We will implement the core functionalities of the web application including authentication, dashboard UI and CRUD operations. This stage will focus on building a functional version of the system. We will document the whole process.

(Week 5) Testing and Validation

In the final week, we will carry out testing activities such as unit testing on code segments and bug fixing. We will also collect feedback from potential users and monitor the performance of the system including query execution times. The goal is to ensure the solution works correctly and meets the requirements defined earlier.

Task list:

1. Inventory Management

- Must have a registration system and an admin dashboard
- Inventory will be tracked by a database
- The admin can add products and amounts of stock available
- The database must be connected to customer service

2. Labor Management

- Managers need to be able to assign shifts to their employees
 - o Opening shift: 07:00 – 14:00
 - o Closing shift: 14:00 – 21:00
- Managers should be able to schedule employees over multiple store locations

3. Customer Service

- Functional feature for customers to order for in-store pickup.
- List with nearby stores to pick your groceries up from.
- Inventory management database should be in sync with this feature. (tracking stock)
- Clear 'out of stock' labels on the product pages.

Conclusion

In this document we've made a clear plan and guide for what our group wants to achieve for the FreshChoice supermarket chain. We want to build a website that improves inventory management, labor management and customer service in a simple and effective way. The planning shows how we will move through each phase from start to finish. The task list makes it clear what features we want to create and what problems they solve. By following this plan we'll be able to create a working system that helps both the customers and the staff of the FreshChoice supermarket.