UNIVERSIDAD DE LAS FUERZAS ARMADAS

ESPE

“OOP”

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Software specification requirements

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The Project FAMSE
Software specification requirements

Instructions for the use of this format.

It is based on and conforms to IEEE Std 830-1998.

Document Tab

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The Project FAMSE
Software specification requirements

1. Introduction

The purpose of this document is to describe the software requirements for the nut store product reservation system. This document is intended for the software development team and the customer.

1.1 Purpose.

Provide an online solution that allows the store's customers to order their products and then pick them up in the store at a specified time. Give customers a faster and more personalized shopping experience, thus reducing waiting time and improving the store. This project can also help the store increase its sales by allowing customers to make early and personalized purchases of its products.

1.2 Reach

Future “NPU” System.

The product reservation system will allow customers of the nut store to make online reservations of the products they wish to purchase, also to purchase them immediately but the main function of this system is to reserve the products. Customers will be able to access an intuitive user interface to search, select and reserve the products they wish to purchase. The system will send notifications by email or text message to the customer when their reserved products are available for pickup at the physical store. At the same time a message will be sent to the store with the order, the salesperson will review the order and prepare the products. If a product is not available, the customer will be informed in the response sent. For the sales part the interface for the seller will be different. He will have to register the customer to start the sale. The system will consist of a stock where all the products are with their specified price and availability. When the customer decides which product to buy the seller will select the product and fill the field "Quantity" once filled this field will be added to the cart, if you do not want more products proceed to the part of "Sale" where the list of products, quantity and price of the product will appear, the product will be shipped, and the payment will be made. And all the information of the purchased products will be updated in the system.

The benefits of this system are the reduction of waiting time in the physical store, since the reserved products will be ready to be picked up when the customer arrives. Increased efficiency in inventory management, as the system will allow better tracking of product demand and availability. As objectives to increase sales and profitability of the store through the implementation of an online reservation and sales system. Improve the customer experience by offering an additional option to purchase products more conveniently. And finally, as goals to be achieved, to reduce the waiting time in the physical store for product pickup to a maximum of 5 minutes. Achieve a 20% increase in online sales during the first year of system implementation.

1.3 Definitions, Acronyms and Abbreviations

SW: Software

NPU: Nutty Pick Up

IEEE: Institute of Electrical and Electronics Engineers

Customer: The person, or persons, who pay for the product and usually (but not necessarily) decide the requirements. In the context of this recommended practice the customer and the supplier may be members of the same organization.

1.1 Staff involved.

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1.2 Reference

Reference	Title	Route	Date	Author

1.3 Abstract.

Until this part we describe the purpose of the project, what we want to achieve with the project, giving a solution to the problem that the client presents us and his objectives with the future NPU (Nutty Pick Up) system, which will allow us to place orders via online to customers in advance, providing an intuitive interface for customers so that it is not difficult for them to use it. Thus, reducing the waiting time for customers for their products.

General Description

1.4 System Perspective

In the future, the online seed ordering and sales system is expected to be an essential tool for managing customer orders and optimizing product sales in the store. With the implementation of this system, it is expected that previously establish goals and objectives will be achieved, such as increasing sales, improving customer satisfaction, and improving customer service Efficient inventory management.

In addition, the system must adapt to the changing needs of customers and the market, so it must be continually updated and improved. New features may be included in the future, such as integration with online payment systems, the incorporation of chatbots to serve customers, or the implementation of data analysis tools for decision making.

The system is totally independent, it does not interact with other systems other than the database where the information is stored and the server where the system is stored.

1.5 Product Functionality

The product reservation system will allow customers to:

- Create and access an online account.
- Search and select the products they wish to reserve.
- Make and modify product reservations.
- Receive email or text message notifications when reserved products are available for instore pickup.
- View the history of reservations made.

Store personnel will be able to:

- View the status of customer reservations.
- View current store inventory.
- Modify the status of reservations as needed.
- Register Customers.
- View the price of each product.
- Make sales at that time

1.6 User Characteristics

Type of User	Customer
Training	Unknown
Abilities	Unknown
Activities	Buyer

Type of User	Staff
Training	Business
Abilities	Businessman
Activities	Seller

1.1 Restrictions

The system shall comply with certain security standards with respect to the protection of customers personal data. Hardware restrictions are based more on the characteristics of the client's devices, such as storage capacity processing speed, RAM memory, among others.

The operating system may be required to operate only on specific operating systems such as Windows, Linux, Android, iOS.

1.2 Assumptions and Dependence

Factors that could affect the requirements of the nut reservation and sales system are changes in product availability, changes in government regulations related to the sale of food, changes in customer preferences for reservation and purchasing methods, and changes in customer preferences for reservation and purchasing methods, and changes in customer preferences for the methods of reservation and purchase.

1.3 Foreseeable Evolution of the System

As future improvements, an online payment system could be integrated for online purchases with the option of home delivery. Incorporate artificial intelligence functionalities to provide personalized recommendations when shopping online, based on purchase history and preferences.

Specific Requirements

1.4 Functional Requirements

The system must allow customers to create and access an online account.

Requirement Number	R1						
Name of Requirement	Reservation system						
Type			Requirement			Restriction	
Requirement Source	Customer Interview						
Requirement Priority			High/Essential		Medium/Desired		Low/Optional

The system must allow customers to search for and select the products they wish to reserve.

Requirement Number	R2						
Name of Requirement	Enter product and buy						
Type			Requirement			Restriction	
Requirement Source	Customer Interview						
Requirement Priority			High/Essential		Medium/Desired		Low/Optional

The system should allow store personnel to verify reservations and the status of reserved products.

Requirement Number	R5							
Name of Requirement	Verification and Status of Reserved Products							
Type			Requirement			Restriction		
Requirement Source	Customer Interview							
Requirement Priority			High/Essential		Medium/Desired			Low/Optional

The system must allow store personnel to update the status of reservations as needed.

Requirement Number	R6							
Name of Requirement	Reservation Update							
Type			Requirement			Restriction		
Requirement Source	Customer Interview							
Requirement Priority			High/Essential		Medium/Desired			Low/Optional

1.5 Non-Functional Requirements.

1.5.1 Performance Requirements.

- The system must be able to handle large amounts of data and transactions without significant delays.
- The system must be capable of processing and storing large amounts of product and customer data.

1.5.2 Security.

- The system must guarantee the privacy of the customer's personal data.
- The system must use authentication and authorization techniques to ensure the security of online transactions.

1.5.3 Availability.

- The system must be available 24 hours a day, 7 days a week, except for scheduled maintenance.
- The system must have high availability and the ability to handle multiple concurrent users.

1.5.4 Maintainability.

- The system must have a maintenance and support plan to guarantee its proper functioning and updating.

The maintenance plan must include:

1. Monitoring and correction of errors in real time.
2. Security updates and bug fixes.
3. Periodic system improvements and updates.

1.5.5 Portability.

- The system must be compatible with various mobile devices and browsers.

1.6 Other Requirements.

Apprentices.

- **Menus:** They will include the complete menus of the restaurant, with detailed descriptions of each dish, ingredients, prices, and special options. This will help to understand the requirements related to managing and displaying the menus in the software.
- **User interface design:** This includes sketches or drafts of the proposed user interface for the software, showing how the various screens will look and how the elements will be arranged. This helps to visualize how the software will look and work.
- **Report Templates:** If the software generates reports, you can add sample report templates that are expected to be generated, this will help establish your reporting and data requirements.