PES UNIVERSITY, BANGALORE

Department of Computer Science and Engineering

Software Requirements Specification

Team Members

Darshan M : PES2UG20CS427

Prajwal Anar : PES2UG20CS449

S Puneeth Raj : PES2UG20CS454

Adithya T : PES2UG20CS413

PES UNIVERSITY, BANGALORE

Department of Computer Science and Engineering

Table of Contents

1. Introduction 1

1.1 Purpose 1

1.2 Intended Audience and Reading Suggestions 1

1.3 Product Scope 1

1.4 References 1

2. Overall Description 2

2.1 Product Perspective 2

2.2 Product Functions 2

2.3 User Classes and Characteristics 2

2.4 Operating Environment 2

2.5 Design and Implementation Constraints 2

2.6 Assumptions and Dependencies 3

3. External Interface Requirements 3

3.1 User Interfaces 3

3.2 Software Interfaces 3

3.3 Communications Interfaces 3

4. Analysis Models

5. System Features 4

5.1 System Feature 1 4

5.2 System Feature 2 (and so on) 4

6. Other Nonfunctional Requirements 4

6.1 Performance Requirements 4

6.2 Safety Requirements 5

6.3 Security Requirements 5

6.4 Software Quality Attributes 5

6.5 Business Rules 5

7. Other Requirements 5

Appendix A: Glossary 5

Appendix B: Field Layouts 5

Appendix C: Requirement Traceability matrix 6

PES UNIVERSITY, BANGALORE

Department of Computer Science and Engineering

Introduction

Purpose

The product whose software requirements are specified in this document is the Perishable Food Management System.

The purpose of this document is to present a detailed description of the product,PFMS. This document is intended to

- Explain the purpose and features of the product, PFMS
- The constraints under which the product must operate
- How the product would respond to different users' requests.

The document's primary goal is to help the reader get a better understanding of the project.

The paper is intended for the developers of the software, the end users of the product who have been identified in the later sections, and the professors who would review the project.

Perishable Food Management System - The software will help in inventory management, giving constant reminders, reducing perishable waste, and maximizing profits and efficiency.

PES UNIVERSITY, BANGALORE

Department of Computer Science and Engineering

Intended Audience

This document is primarily intended for the:

1. Developers of this software (Team members)
2. The professors reviewing the document.
3. Clients that are Supermarkets, Hypermarkets, and Warehouse owners.

Product Scope

The software being developed here is for Hypermarket/Supermarket/Warehouse Management to

- Help in Incoming inventory management
- Giving Smart reminders on the life of Perishable Food stock
- Stock Batch Management
- Inventory Overview and Search

References

- *https://dearsystems.com/food-inventory-management/*
- *https://unicommerce.com/warehouse-management/?utm_source=Gads_search&utm_campaign=140478137404||17725963566&keyword=warehouse%20management%20system%20software&device=c&placement=&location=9062082&gclid=Cj0KCQjwyOuYBhCGARIsAIdGQRN89iMy13Up4yfyEa_KROdv_J28SMNirnv3e4sSBKTwzxW8FNJt5mgaAodOEALw_wcB*
- *https://theecommmanager.com/tools/warehouse-management-systems-software/*

PES UNIVERSITY, BANGALORE

Department of Computer Science and Engineering

Overall Description

Product Perspective

Our product is a new Self-contained product. All the functionalities are created by scratch with their own scope of scalability.

Product Functions

- Incoming inventory management
- Smart reminders
- Batch Management
- Inventory Overview and Search

User Classes and Characteristics

The system will support three types of user privileges

- Client Management
- Maintenance Admin

The various users that we expect the software to be used by are:

1.	Client Management	Client Management here stands for warehouse, supermarket, hypermarket employee team.
2.	Maintainance Admin	Maintenance Admin here stands for the product development team. If the client faces any issues,mainatainace team will provide any help

Operating Environment

The product is specifically built for the Windows operating system. The software does not require an active internet connection. The software is compatible with the basic standard hardware.

Design and Implementation Constraints

Initially client is required to log in with their credentials to access the software. The client can browse and search the stock in the overview. The software assists the clients with managing the batch of stock. Timely reminders are given on the main page of the product. An option to manage the incoming inventory is given. The client is taken to a different page to enter and manage those details.

2.6 Assumptions and Dependencies

The assumptions are:-

- The coding should be error-free.
- The system should be user-friendly so that it is easy to use for the users.
- The system should have more capacity and provide fast access to the database.
- The system should provide a search facility.
- The system should be accurate in managing the batch present in the warehouse/supermarket/hypermarket

The dependencies are:-

- The client system must have Microsoft windows version windows 7 and above with database software recommended by the product developers.

PES UNIVERSITY, BANGALORE

Department of Computer Science and Engineering

External Interface Requirements

User Interfaces

The UI/UX is simple and minimalistic. When the product is delivered, the Client's accounts are created and set up in the software.

There will be mainly three views from the client's side. Stock Overview and Search, Incoming Inventory Management, Outgoing Batch Management. The main page will have a section for the reminder section.

Software Interfaces

- **OS**: Windows 7 or above
- **Database:** MongoDB

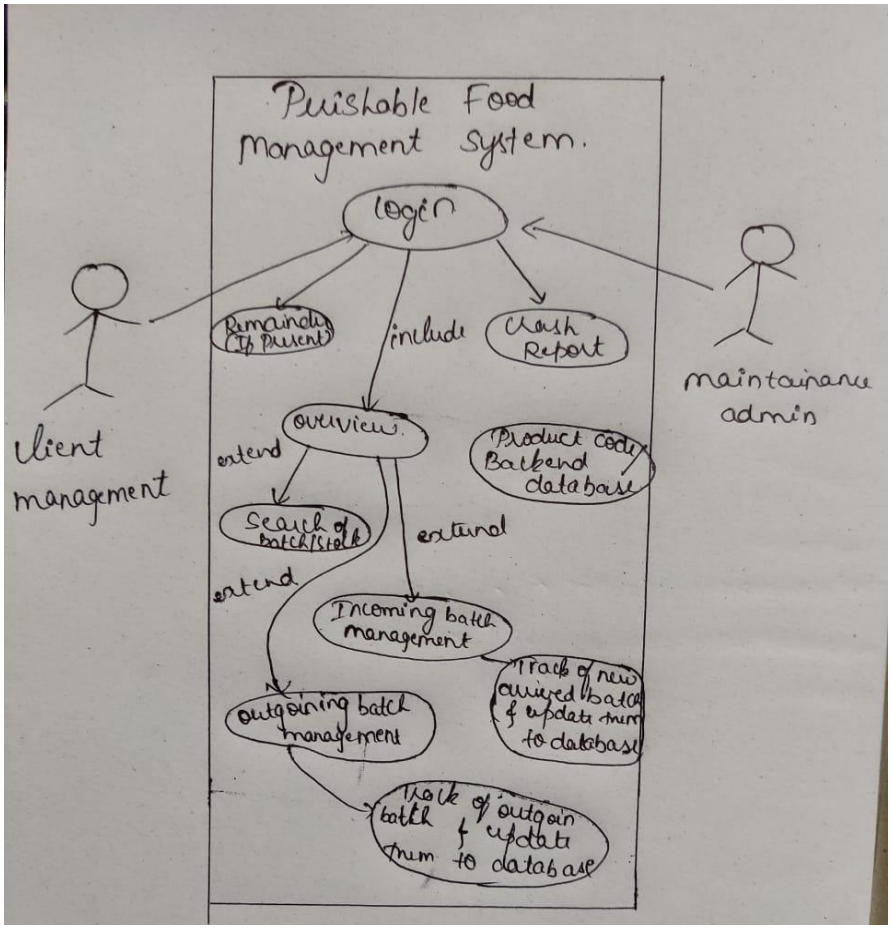
Communications Interfaces

For the client management side, each employee has to access the software with the unique credential given by the warehouse/hypermarket/supermarket authorities.
For the maintenance admin side, there will be a master password using which the product developer can access the software in case of any issue.

PES UNIVERSITY, BANGALORE

Department of Computer Science and Engineering

Analysis Models



System Features

- Help in Incoming inventory management
- Giving Smart reminders on the life of Perishable Food stock
- Stock Batch Management
- Inventory Overview and Search

PES UNIVERSITY, BANGALORE

Department of Computer Science and Engineering

Other Nonfunctional Requirements

Performance Requirements

- Accurate Database outputs
- Accurate stock search
- Realtime reminder
- Accurate and fast backend algorithms

Safety and Security Requirements

- Database will be well-protected
- User credentials will be protected

Software Quality Attributes

The software will be built using Python, Python GUI, MongoDB. Since the business logic, presentation layer, and database layer are 3 independent entities bound together by application logic it is easy to add more features in the future. That is, one can avoid ripple changes throughout the entire code thus making the task of maintenance more effective and easy.

Business Rules

- Users can access the software only after logging in.
- Maintenance Admin has access only to the backend of the software

Other Requirements

- Python Libraries
- GUI libraries