

Software Requirements Specification
of
Inventory Management System
(IMS)



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1. Introduction

Inventory management has become an important factor in the modern business field. This system should help the businessmen to streamline the administrative task and provide real-time access to the data. Building this system in a standalone application interface will further help the ease of accessibility through the provided portal.

1.1. Purpose

The purpose of this document is to present a detailed description of the Inventory Management System. It will explain the purpose and features of the software, the interfaces of the software, what the software will do, the constraints under which it must operate and how the software will react to external stimuli. This document is intended for both the end users and the developers of the software. The Inventory Management System (**IMS**) has to handle records for a number of products. Though it used an information system, it was totally manual.

1.2. Scope

This document covers the requirements for the Inventory Management System. This software will provide a graphical environment in which the users of the system will be able to perform various operations that are associated with storing, removing, updating and retrieving product information. The purpose of this is to guide developers in selecting a design that will be able to accommodate the full-scale application. This system will capture information about users personal details, product details and their quantities.

2. General Description

2.1. Software Perspective

The product Inventory Management system, is an independent product and does not depend on any other product or system. The product will automate various tasks associated with handling product details and better organizing the stored information and optimum performance, thus helping the businesses to ensure smooth working of these processes.

2.2. Software Functions

- Category has to be added by admin as per policy.
- Product has to be added by admin as per policy.
- Product quantity has to be updated.
- Report has to be generated.
- Super admin can register another admin with proper claims.

2.3. Assumption and Dependencies

We assume that:

- The office personnel with appropriate claims do data entry.
- The computer that will use the software will have a proper platform to run it.
- User will be responsible for any inconsistency of his work.

3. Specific Requirements

3.1. External Interface Requirements

3.1.1. User Interface

- GUI along with meaningful frames and buttons
- Popup message for any error or success
- Reports are generated as per the requirements

3.1.2. Software Interface

- .NET Framework 4.8
- NHibernate 5.4.2
- ASP .NET Identity Framework
- MS SQL Server 16.0.1000

When invalid inputs are given to the modules then the error messages will be popped up in order to inform the user that the input provided is not taken by the database. When incomplete information is provided by the user and the user tries to submit the form in order to store the details in the database the system will pop up a message box asking the user to enter all the details required.

3.1.3. Communication Interface

The machine will have to be part of the same network of central databases to access the database.

3.2. Functional Requirements

- **User Management:** Super Admin(SA) has supreme power to manage full software. SA can register new admins and give them appropriate claims to manage the system.
- **Product Management:** Product or category has to be inserted, created, updated, viewed, deleted by Various types of admin such as Manager(create, modify or delete a category or product), Supervisor(update product quantity), Seller(sell product).
- **Authentication and authorization:** Registered users can login into the system and use features.
- **Reports:** Reports have to be generated accordingly by product or category.
- **Profile Making:** Buyer and supplier profile has to be created by Manager.

3.3. Non-Functional Requirements

- **Performance:** This software should have a minimum response time to interact with users.
- **Availability:** This software should have a goal of 99.9% availability to ensure users can do any operations anytime.
- **Security:** This software should have an authentication and authorization process so that users can't access restricted features.
- **Maintainability:** This software should be continuously integrated so that features, updates, and bug fixes can be deployed rapidly.
- **Portability:** This software is web based so it can be accessed by desktop or mobile browser.

3.4. Design Constraints

The Inventory Management System (**IMS**) has to handle records for a number of products. It is totally manual. It provides security. The login form prevents the system from being misused by unauthorized users. Only an authorized operator will be granted rights to modify as per requirements. It is also reliable and fault tolerant. This software is designed to handle invalid inputs.

3.5. Other Requirements

- **Database:** All the data will be stored in a relational database. As it is a single point of failure, we need to backup regularly.