Software Requirements Specification

for

Inventory Management System

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# **1.** **Introduction**

Inventory management system has become important factor in 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 standalone application interface will

further help the ease of accessibility through the provided portal. The study findings enable

the definition of the project problem statement, its objectives, scopes and advantages of the

inventory management system.

## **1.1** **Purpose**

The purpose 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 operates and

how the software will react to external stimuli. This document is intended for both the end

users and the developers of the software.

## **1.2** **Intended Audience**

The primary intended audiences are:

· **System Developers and Engineers:** To understand the required functionalities, database relationships, user permissions, and system logic needed to implement and maintain the IMS.

· **Project Mentor and Product Owners:** To monitor development progress, verify alignment with business goals, and ensure the system meets operational requirements.

· **Quality Assurance/Testers**: To use the documented functional and non-functional requirements to create effective test cases and validate system performance.

· **End Users:**

o **Admin**: Oversees the entire inventory system, manages users, and ensures security and system configuration.

o **Product Manager**: Handles production orders, monitors inventory availability, and coordinates with the labour team for manufacturing workflows.

o **Labour**: Interacts with the system to update inventory movement, mark task completion, and provide on-ground input on material usage.

## **1.3** **Project 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, marinating, 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 customer’s personal details products and their quantities. Storing updating

and retrieving in a fast and accurate way.

## **1.4** **Definitions**

The Inventory Management System has to handle records for number of products and

maintenance was difficult. Though it has used an information system, it was totally manual.

Hence there is a need to upgrade the system with a computer-based information system.

## **1.5** **References**

An Integrated Approach to Software Engineering Approach - Pankaj Jalote

Software Engineering A Practitioner’s Approach - Roger S Pressman

# **2.** **Overall Description**

## **2.1** **Product 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** **Product Functions**

Our system has two types of accessing modes,

1.Administrator

2.Product Manager

3.Labour

1.**Administrator**:

IMS is managed by Administrator. Administrator has to update and monitor the registered

product details, add a new product, provide product number for all products, assign each

product quantity and GST etc., Administrator can update his profile, and also can generate

date wise reports.

**2. Product Manager**:

Handles production orders, monitors inventory availability, and coordinates with the labour team for manufacturing workflows*.*

3. **Labour**:

Interacts with the system to update inventory movement, mark task completion, and provide on-ground input on material usage.

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## **2.3** **Assumptions and Dependencies**

We assume that the Office personnel do all the data entry based and the correct

values obtained from forms and registers.

• We assume that the computers that will use the software will be part of the

having proper platform to run it.

• Users with administrator access should be careful in deleting or modifying any

information knowingly or unknowingly which will lead to inconsistency of the

database.

• The end users of this software are assumed to have basic level of computer

knowledge i.e. point and click.

# **3.** **External Interface Requirements**

## **3.1** **User Interfaces**

• GUI along with meaningful Frames and buttons

• Reports are generated as per the requirement

## **3.2** **Hardware Interfaces**

| Hardware Environment | Intel i5 11th generation/ |
| --- | --- |
| System Configuration | RAM-4 GB HDD-80GB |
| Operating system | Windows 11 |

## **3.3** **Software Interfaces**

| Frontend | ReactJS |
| --- | --- |
| Backend | NodeJS, ExpressJS |

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.

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## **3.4** **Communications Interfaces**

The **Inventory Management System (IMS)** leverages the **HTTP/HTTPS protocols,**

The machine will have to be part of the Local area Network to access the

central database.

# **4.** **Other Nonfunctional Requirements**

## **4.1** **Performance Requirements**

<If there are performance requirements for the product under various circumstances, state them here and explain their rationale, to help the developers understand the intent and make suitable design choices. Specify the timing relationships for real time systems. Make such requirements as specific as possible. You may need to state performance requirements for individual functional requirements or features.>

## **4.2** **Safety Requirements**

<Specify those requirements that are concerned with possible loss, damage, or harm that could result from the use of the product. Define any safeguards or actions that must be taken, as well as actions that must be prevented. Refer to any external policies or regulations that state safety issues that affect the product’s design or use. Define any safety certifications that must be satisfied.>

## **4.3** **Security Requirements**

<Specify any requirements regarding security or privacy issues surrounding use of the product or protection of the data used or created by the product. Define any user identity authentication requirements. Refer to any external policies or regulations containing security issues that affect the product. Define any security or privacy certifications that must be satisfied.>

## **4.4** **Software Quality Attributes**

<Specify any additional quality characteristics for the product that will be important to either the customers or the developers. Some to consider are: adaptability, availability, correctness, flexibility, interoperability, maintainability, portability, reliability, reusability, robustness, testability, and usability. Write these to be specific, quantitative, and verifiable when possible. At the least, clarify the relative preferences for various attributes, such as ease of use over ease of learning.>

# **5.** **Other Requirements**

<Define any other requirements not covered elsewhere in the SRS. This might include database requirements, internationalization requirements, legal requirements, reuse objectives for the project, and so on. Add any new sections that are pertinent to the project.>

Appendix A: Glossary

<Define all the terms necessary to properly interpret the SRS, including acronyms and abbreviations. You may wish to build a separate glossary that spans multiple projects or the entire organization, and just include terms specific to a single project in each SRS.>

Appendix B: Analysis Models

<Optionally, include any pertinent analysis models, such as data flow diagrams, class diagrams, state-transition diagrams, or entity-relationship diagrams.>

Appendix C: Issues List

< This is a dynamic list of the open requirements issues that remain to be resolved, including TBDs, pending decisions, information that is needed, conflicts awaiting resolution, and the like.>