**Inventory Management System** Software Requirements Specification



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# 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.

## 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.

## 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.

## Definitions, Acronyms, and Abbreviations

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.

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## References

An Integrated Approach to Software Engineering Approach - Pankaj Jalote

Software Engineering A Practitioner’s Approach - Roger S Pressman

## Overview

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 interface 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.

# General Description

## 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.

## Software Functions

Our system has two types of accessing modes,

1. Administrator
2. Customer

### 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 give help to the customers.

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### Customer:

Customer can purchase the products and make payment accordingly. All his data will be saved into the database by the administrator to keep record of the sold products.

## 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.

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# Specific Requirements

## External Interface Requirements

### User Interfaces

* + - * GUI along with meaningful Frames and buttons
      * Reports are generated as per the requirement
      * Refer Appendices 2.

### Hardware Interfaces

|  |  |
| --- | --- |
| Hardware Environment | Dual Core 2nd generation/ |
| System Configuration | RAM-4 GB HDD-80GB |
| Operating system | Windows 7/8/8.1/10 |

### Software Interfaces

|  |  |
| --- | --- |
| Front End | Java |
| Back End | MySQL 5.1.36 |

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.

### Communications Interfaces

The machine will have to be part of the college Local area Network to access the central database.

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## Functional Requirements

Inventory Management System involves the following functions

### Customer Registration:

* IMS provides customer registration and status information to the to the administrator to view their status.
* IMS provides automatic customer register number generation based on randomization algorithm.
* IMS provides to customers to purchase products and enlist them in their profile.

### Product Management:

* Easily track product information (sold and available).
* Quickly produce reports for single or multiple sold products.

## Non-Functional Requirements

### Performance

Easy tracking of records and updating can be done. All the requirements relating to performance characteristics of the system are specified in the section below. There are two types of requirements.

### Static Requirements

These requirements do not impose any constraints on the execution characteristics of the system. They are:

* 1. **Number** **of** **Terminals:**

The software makes use of an underlying database that will reside at the same system, while the front end will be available to the administrative computer.

* 1. **Number** **of** **Users:**

The number of users can be administrator only, but this software can be extended to applications for almost all staff members of the organization.

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### Dynamic Requirements

These specify constraints on the execution characteristics of the system. They typically include response time and throughout of the system. Since these factors are not applicable to the proposed software, it will suffice if the response tine is high and the transactions are carried out precisely and quickly.

### Reliability

The software will not be able to connect to the database in the event of the server being down due to a hardware or software failure.

### Availability

The software will be available only to administrator of the organization and the product as well as customer details will be recorded by him. He can add customers, update and delete them as well as add new products and manage them.

### Security

The security requirements deal with the primary security. The software should be handled only by the administrator and authorized users. Only the administrator has right to create new accounts and generating inventory. Only authorized users can access the system with username and password of administrator.

### Maintainability

Backups for database are available.

### Portability

The software is a web-based application that is independent of operating system and platform because it is written in SQL and Java.

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## Design Constraints

This software 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. This software is also reliable and fault tolerant. The system developed is designed to handle invalid inputs. Since reliability is major area of concern the system has a backup to avoid data loss. The user should know the programming language very well that is used to develop a software.

## Other Requirements Database

All the data will be stored in a relational database

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