Stock Management System

Vision

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**Revision History**

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| --- | --- | --- | --- |
| Date | Author(s) | Changes | Version |
| 01/04/2021 | Özgün Şen  Berfu Anıl  Esra Ateş  Nehir Erdem | Initial Draft | v1.0 |
| 04/04/2021 | Özgün Şen  Berfu Anıl  Esra Ateş  Nehir Erdem | First Review Corrections  Clarification of the requirements | v1.1 |
| 12/04/2021 | Özgün Şen  Berfu Anıl  Esra Ateş  Nehir Erdem | Needs and Features Corrections | v1.2 |

# Introduction

This document includes the vision and scope of the Stock Management System aim to check the stock of the current needed product status whether it is close to being understock or overstock for the production. In the case of closure to understock, the situation user is being notified. The same applies to the overstock situation. The system checks inventory on a daily basis. Stock managers can control, add and remove inventory items. When the request is approved, the stock level is reduced automatically. The application is suitable for third party electronic component manufacturing companies in terms of the application domain. This product will be a B2B multi-tenant SaaS solution. Since maintenance costs are spread across the architecture and take less time to set up, update and manage, multi-tenancy architecture is chosen.

# Positioning

## Problem Statement

|  |  |
| --- | --- |
| The problem of | Thousands of parts need to be checked in the stock management system. Wrong process management causes system downtime due to lack of inventory items or unnecessary purchases can cause difficulties in warehouse management. |
| affects | Customers, Project Managers, Investors, Suppliers and Vendors, Employees |
| the impact of which is | Without inventory management, production processes can be interrupted. As a result, productivity decreases and production costs increase. |
| a successful solution would be | Provide information about stock levels to make timely and required quantity purchases by checking stock levels regularly |

## 

## Product Position Statement

|  |  |
| --- | --- |
| For | Stock Manager |
| Who | Responsible for the stock levels are sufficient for production |
| The (product name) | is a Stock Management System |
| That | Keeps stock levels under control  Prevents understock or overstock situations  Ensures timely purchase orders creation  Prevents bottlenecks caused by stock levels |
| Unlike | Slow login timing  Cloud database security flaws  A complex interface that takes time to learn |
| Our product | Provides a dashboard that shows critical stock levels in a timely manner  Works integrated with various systems such as production, maintenance, procurement |

# Stakeholder Descriptions

## Stakeholder Summary

|  |  |  |
| --- | --- | --- |
| **Name** | **Description** | **Responsibilities** |
| Product Owner | The leader is responsible for maximizing the value of the product created by the team. | Defines the vision, prioritizing needs, anticipating client needs, evaluates product progress at each iteration. |
| Analyst | Works with the stakeholders to translate needs into requirements. | Knowledge transfer to developers, verification of solutions, requirement gathering, software documentation preparations. |
| Software Architect | Highly experienced developers who design software solutions from the ground up. | Creating high-level product specifications and design documents, Guiding and assisting the development team, resolving issues with code and design, ensures the code quality and cleanliness. |
| Project Manager | This stakeholder coaches the team to drive a successful outcome of the project. | Plans, manages and allocates resources, decides priorities, coordinates interactions with customer and users, and keeps the project team focused. |
| Software Engineer | This stakeholder translates requirements into code. | Understands the architecture and implements system requirements. |
| Software Test Engineer | This stakeholder identifies the tests that need to be performed and analyzes the results. | Implements and runs tests verify the test has been run and communicates test results to the team. |
| Quality Team | The quality team is responsible for conducting quality assurance activities. | Conduct activities that validate quality requirements and ensure creating quality deliverables. |
| End-user | End-user of the system. | Participating in user acceptance tests and validating the system. |

## User Environment

The Stock Manager is involved in completing the task. Later on, a Procurement Specialist may be involved. The Task cycle is being repeated before each production. The amount of time spent depends on the size of the inventory. Since the system will be web-based, it is platform-independent. Chrome will be supported as a web browser. The constraint is the internet connection for the system.Inventory amounts are handled manually. Later on, an Order Management System may be integrated.

# 

# Product Overview

## Needs and Features

|  |  |  |  |
| --- | --- | --- | --- |
| **Need** | **Priority** | **Features** | **Planned Release** |
| System User Management and log in | High | User registrations and logins | Release 1 |
| Raw material definition | High | Define raw material | Release 1 |
| Product definition | High | Define product | Release 1 |
| Inventory bindings/mappings | High | Bind products with raw materials | Release 1 |
| Creating stock request/demand | High | Define production demand to calculate the stock needs | Release 1 |
| Updating stock levels | High | Reduce stock levels based on production request and update stock levels manually | Release 1 |
| Inventory dashboard | Medium | It is the homepage of the application | Release 1 |
| Receive alerts for under or overstocking items beyond a defined threshold | Medium | Stock notification | Release 2 |
| Daily inventory status notifications via email | Low | Daily email notification | Release 2 |
| Generates the report that contains inventory information | Low | Report generation | Release 2 |
| Stock Forecasting | Low | Define estimated and upcoming production demand | Release 2 |
| System User Role Management | Low | Defining user authorizations on the system | Release 2 |
| Sign up for the system | High | Sign up for the system | Release 2 |

# Other Product Requirements

|  |  |  |
| --- | --- | --- |
| **Requirement** | **Priority** | **Planned Release** |
| User-friendly interface that provides quick access to common features or commands, easy to locate different tools and options and should require minimal explanation for how to use it. | High | Release 1 |
| Compatibility with Chrome Web Browser at first release. | High | Release 1 |
| User Manuals should be provided. | Medium | Release 2 |
| Availability must be 2 nines which mean 99% service uptime and aim for downtime below 15 minutes per day. | Medium | Release 2 |