OOMD Lab 2022-23

Stock Maintenance System

Problem Statement

The stock maintenance system must take care of sales information of the company and must analyze the potential of the trade. It maintains the number of items that are added or removed.

Introduction

* Purpose:

The purpose of this system is to maintain stocks in an automated way.

* Scope of this document

The core of the system is to get the online registration form (with details such as name, address etc.,) filled by the applicant whose testament is verified for its genuineness by the Stock Market Prediction with respect to the already existing information in the database. It adopts a comprehensive approach to minimize the manual work and schedule resources, time in a cogent manner.

* Overview

General Description

A stock market management system is a software that helps manage the entire details of the stock market in an automated way. It can help maintain an optimal stock level, track goods during transport between locations, receive new items, manage warehouse processes such as picking, packing, and shipping, prevent product obsolescence and spoilage, and ensure your products are never out of stock.

Functional Requirements:

* Passport Information: The system should provide an online interface to the user where they can fill in their personal details and submit the necessary documents (may be by scanning).
* The system should allow the user to apply for a new passport, renew an existing passport, or change any details in their passport.
* The system should allow the user to pay the required fees for their passport application through online mode or offline mode.
* The system should authenticate the user by using their username and password or by scanning their barcode.

Interface Requirements

* User Interface
  + UI should be simple, intuitive, responsive and consistent
  + Interface should support different languages and devices as needed
  + UI should display availability and location of books in the library
* Hardware Interface:
  + The system should be compatible with multiple operating systems such as Windows, Linux etc
  + The system should be reliable and secure when communicating with hardware devices
  + The system should use QR codes to scan passports, and to facilitate payments
* Software Interface:
  + A working OS
  + Front-end framework like React/Angular/Vue
  + RDBMS like MySQL, PostgreSQL etc
  + Containers and orchestration services like Kubernetes

Performance Requirements

* The number of pages should be minimized for the user’s convenience
* The system should work 24/7
* There should be a procedure for when there is loss of data due to failure of storage device or similar reason.
* The system should update every few seconds

Design Constraints

* Working with the constraints set by the government
* Respect industry standards and follow best practices of software development

Non-Functional Requirements

* Performance: The system should be fast and accurate. It should handle expected and unexpected errors. It should be able to handle large amounts of data.
* Security: The system should protect the data from unauthorized access and modification. It should use encryption and authentication techniques to ensure data security.
* Scalability: The system should be able to handle an increasing number of users and applications without degrading the performance or functionality.