Stock Management System

Summary

Applied Computer Science

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INTERNSHIP SUMMARY

Between the period of 27/02/2023 to 26/05/2023, I completed a 13-week internship at CERcuits.

CERcuits is a company that specializes in ceramic PCB and substrates for prototypes & small series that has experienced growth and needs to improve its inventory system. The current process of storing data is time-consuming and inefficient, so the goal of the assignment was to create a system that provides better control over inventory and sends notifications based on specific parameters, such as low stock or approaching expiration dates.

The need for a Stock Management System arises from the increasing difficulty of managing inventory manually as the company expands its client base, receives more orders, and deals with a wider range of products. The system should address questions such as what products are available, their location, what needs to be ordered, when it needs to be ordered, and information regarding expiration dates.

The implementation of the Stock Management System depends on an analysis of the provided information from the company about the system required, taking into account the pros and cons of various options that align with the assignment's requirements.

The assignment has several requirements that need to be fulfilled, although they are subject to change as further research is conducted.
The most important requirements are:

- ✓ The use of open-source software is preferred.
- ✓ The core application should run on a virtual machine with a Linux OS.
- ✓ Select the frameworks and Relational Database.
- ✓ Documentation with UML diagrams, database structure, and user stories.
- ✓ Web-browser version of the Stock Management System.
- ✓ Mobile version of the Stock Management System.
- ✓ Documentation of the Developed Stock Management System.

To fulfill the requirements of the Stock Management System, the company needs an automated system with user-friendly interfaces that provide accurate inventory information. This includes the option to scan QR codes to access stock information and update quantities. The system should be accessible through web browsers on computers and a dedicated Android application on mobile phones. Additionally, the system should replace the current stocking method and support the production department.