

Inventory Management and Monitoring System using Progressive Web Application Frameworks

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Abstract

Inventory Management and Monitoring Systems are extremely beneficial to business owners, as they allow shops to properly control and keep track of the goods they buy, process, and sell. When inventory is mismanaged, it leads to dissatisfied consumers, slower sales, too much cash on hand, and warehouses. This inventory system reduces manual work, human mistakes, and manual delays while simultaneously speeding up the process. This Inventory Management and Monitoring System will be able to track inventories online. An inventory management system is an online-based program that can be accessed anytime, anywhere provided with the presence of an Internet connection that focuses on inventory. The inventory management system has several features. This web application has logical tools for evaluating ideal inventory levels and selecting the appropriate replenishment strategies automatically. It also has capabilities like the ability to identify stock levels, compute reorder points automatically, and highlight potential stock-outs. This technique eliminates the risk of stock-outs of fast-moving goods by minimizing delays. The study revealed that the company administrator and employee respondents' evaluation was "very suitable", "very efficient", "very compatible", "very usable", "very reliable", "very secured", "very maintainable" and "very portable" on all dimensions of ISO metrics in terms of software quality of Inventory Management and Monitoring System using Progressive Web. In terms of acceptability, the Administrator and Employee respondents' evaluation were "very acceptable". There are significant differences on the assessment between Administrator and Employee respondents towards dimensions of the Inventory Management and Monitoring System using Progressive Web as to functionality, performance efficiency, capability, usability, reliability, security, maintainability and portability. There is a significant difference on the assessment towards the level of acceptability on the Inventory Management and Monitoring System using Progressive Web between the Administrator and Employee respondents. Based on the summary of the investigations conducted, and the conclusions arrived at, the researcher recommended that the Inventory Management and Monitoring System using Progressive Web is highly recommended to be implemented to provide an alternative way of an inventory system. The implementation of an Inventory Management and Monitoring System using a Progressive Web Application will benefit not only the company but also the administrators and employees in terms of inventory management and conflict resolution. The Inventory Management and Monitoring System using Progressive Web application suggested including a feature in a system that would receive alerts and notifications when stock levels exceeded a predefined threshold.

Keywords: Inventory Management System, track sales, time-saving, warehouse, stock.