ASAN: A WAREHOUSE MANAGEMENT SYSTEM

ASAN: A WAREHOUSE MANAGEMENT SYSTEM WITH COMMUNICATION SUBSYSTEM FOR SCRAP YARDS IN THE PHILIPPINES

A Capstone Project
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INTRODUCTION

Scrap yards have been integrating technology in their business operation such as Laser Object Detection (LOD) in sorting and processing materials. The study will specifically focus on the day-to-day interaction between the scrap yard company and the scavengers. The project aims to investigate the business process and operational flow behind scrap yard companies and develop an integrated warehouse management system with a communication subsystem mobile application. The communication subsystem only featured an in-app messaging functionality, enabling one-on-one communication. The 'Scrapper' is a website that allows users to track their scrap metal and other materials. It is used to help the public with information about scrap metal, and to help them make informed decisions about what to do with it. The site is free to use, but there is a fee for use of the site. The fee is based on the number of items that are available to be collected and processed. It also includes the cost of collecting and processing the scrap.

METHOD

The aim of the system was to streamline and automate the business process of scrapyard facilities. The scope of the software design was represented through a UML Use-Case Diagram, which represented the system's various entities and expected behavior. Buyers can scroll the scrap catalogue with real-time stock levels to curate their need for scrap. Owners can interact with their buyers through the in-app communication feature. The Agile Method was utilized with the following key Milestones: Requirements Gathering and Analysis, System Development, System Review, Implementation, and Testing. ASAN: A WAREHOUSE MANAGEMENT SYSTEM is designed to provide real-time stock statistics. The system evaluation consisted of two (2) stages, namely the project demonstration and the final evaluation. The researchers trained the users and staff on how to use the new system effectively. They then integrated and tested the system to identify and fix any bugs or issues. They also gathered user feedback on the system's performance and gathered data on user feedback. The ASAN system is available for download from the ASAN website. ForASAN: A WAREHOUSE MANAGEMENT SYSTEM. Buyers select Login using an existing account, sign-up for a new account, or forget password. Owners access ASAN using Google Forms. Use Google Forms as a tool to create and distribute an evaluation form to the clients. ForASan: AWAREHOUse MANAGING SYSTEM. For ASAN: a WAREHouse ManAGEMENT system. For Asan: aWAREHouSE.

RESULTS

The ASAN Mobile Application for Sign-Up or Registration provides new users with a quick and efficient way to create their accounts. The system can handle real-time chatting. The user can easily select the desired scrapyard, which is displayed on the bottom of the home screen. The app's dashboard allows you to select the user-friendly interface and easily access the features of the application that users need. The application has a 96% pass rate with a 4% failure rate. The overall summary of the reliability is presented in Table 6. The app's meaning, purpose, and objectives are explained in detail. The system will send the reset link through email. Scrap buyers can now easily search for and choose the nearest warehouse that offers the scrap material they need. Users can upgrade to the Premium plan to enable makers to profit from this project, unlocking additional features. The app is free and available to download from the Google Play store and the App Store. It is available in English, Spanish, and Russian. It was developed by Asan, a company based in Shenzhen, China. The project provides three accounts: for the scrapyard owner, scrapyard buyer, and for the admin account, which is web-based. Users have viewpoints for basic to premium features that are available. Users can also access the premium subscription through this section. The system was rated as ?Highly Acceptable? for the availability criterion with a weighted mean of 3.63. The testing was done in one cycle, as shown in Table 5, which summarizes the percentage of passed and failed test cases in this cycle. An integrated warehouse management system mobile application with an embedded communication subsystem and a web-based administrative account management system was developed to streamline the warehousing of scraps. The system was rated as ?Highly Acceptable? with a weighted mean of 3.67 in terms of maturity and ?Highly acceptable? in the terms of fault tolerance. It also received a descriptive rating of ?Highley Acceptable.? for functional appropriateness. The system integrated PayPal for its mode of payment in subscription. It includes features such as "Edit Profile," "Home," " Categories," "Stocks," "Plans," and "Log Out" The system was rated ?Highly Acceptable? with a weighted mean of 3.60 in terms of recoverability. It is only accessible with Android and does not support IOS or other operating

systems. The system's overall weighted mean rating is 3.72, which is described as ? highly acceptable? The system was developed specifically to be intuitive and easy to use. It provides features for user authentication, profile management, CRUD, scrap categories, and monthly or annual in-app subscriptions. The system satisfied the functional suitability and reliability criteria in accordance with ISO/IEC 25010. It also provides features such as a sales dashboard, user management, and tracking of requests. The app is available for download from the Google Play store and the Apple App Store. It is not available in the UK.

DISCUSSION

The system was designed to eliminate the manual process of warehousing, which is still done by pen and paper. The automated warehouse management has reduced the time required for managing stocks, letting the owners focus on the strategic aspects of the business. The system was also evaluated as ?Highly Acceptable?, and this suggests that the system works as intended under the circumstances ofASAN: A WAREHOUSE MANAGEMENT SYSTEM. The project provided scrapyards along Quezon City with a mobile application for daily scrap input, bulk stock insights, and data analytics.