

COCOCARE: EMPOWERING SUSTAINABLE LIVING
WITH ECO-CONSCIOUS E-COMMERCE AND
INVENTORY MANAGEMENT SYSTEM

A Capstone Project
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INTRODUCTION

The proposed system could enable business innovation to reach out to more clients and increase sales and marketing. The initiative intended to optimize resource utilization, decrease waste, and minimize the carbon footprint. The main objective of this system was to create an interactive platform via which users could easily buy, sell, promote, and share coconut goods and commodities linked to the Philippines. The wide range of uses for products made from coconuts has made them a valuable resource for the nation and an important part of the Philippines' agricultural industry. Coconut was one of the most important crops in the Philippines, with the country being the second-largest coconut producer globally. The authors have come up with a solution that can help coconut farmers by developing an e-commerce inventory management system. This function was to inform environmental decisions for the users and the users themselves. The inventory system offered agricultural owners? direct knowledge about their product offerings, sales patterns, and customer preferences. It could cover energy conservation, packaging waste reduction, and other eco-friendly activities.

METHOD

The following procedures were tested for the functionality of the system's sub-modules. Developed test cases were used to assess functionality of each module in the system. Tests were carried out for the Dashboard, Order and Purchase modules. The scope of the software design is represented through a Use-Case Diagram. The system requires the access of the owner to view and access the various parts of the product. The user can view and delete products if they want to, and have a connection with the shop owner. The development of CocoCare: E-commerce System with an Inventory System for both the client and the user had been using Scrum Agile Methodology. The context-level Data Flow Diagram (DFD) for CocoCare provides a comprehensive overview of the interactions and data flows within the system, highlighting the interactions between customers and shop owners facilitated by the CocoCare platform. Respondents were asked to complete the survey and use the 4-point Likert scale to rate the system for each criterion. The project was conducted on the system's undesirable functions and on the test scenarios. The test cases were implemented using the form shown in Table 1. Shop owners use the system to log in, manage orders, add or update products, create and manage vouchers, handle messages, track eco-tasks, modify account details, and access sales reports. The researcher will compute the results of the Likert scale with the Mean average. The system ensures that shop owners receive the necessary details to manage orders and products. The system was reviewed by a variety of students, including students from College. The system was shown, and in exchange, the audience was given surveys. The platform incorporates a database server to facilitate the storage of crucial data. The users can modify the quantity in their cart. Interpreting the results by using the equivalent descriptive rating as shown in Table 15. This diagram provides a visual representation of the system's process flow. It is intended to pave the way for a more in-depth exploration of details. The system was designed by ARC Refreshments Corporation. It was developed by students, IT experts, and the CocoTribe Manager. The system was tested by a group of IT experts and students. The test cases consist of a predetermined set of inputs, preconditions for execution, and anticipated outcomes. Reliability testing

seeks to guarantee ongoing access and functionality of the platform by assessing its durability and consistency. The evaluation procedure is described in the following manner: The data flows within the system include purchase orders, coconut supplydetails, order billing, customer information, and payment details. Team members share their 24-hour daily plans, plans for today, and challenges. Team members can log in and log out of the product backlog. Test cases that did not pass initially were re-run to confirm their test cases. Test downloads the Invoice and the top-level Data Flow Diagram (Shop Owner Access) Test downloads and tabulates data using the Likert Scale. Test cancels orders and sends messages to the shop owner using the Earntic Earntic Message.

RESULTS

The user can successfully click the submit button to complete the creation of the new brand after completing the necessary details in the fields. The order list includes information such as the order number, the customer's name and email address, the quantity of the item that was ordered, the cost of the desired item, and the total charge. The "Cart Total" section allows the user to view the Subtotal of the Product Cost and Shipping Cost. The product title, category, tag, author, photo, status, and action are displayed. The product list includes every product description listed for the Items. The Product List includes the name of each product as well as the total price of the order. The edit action allows administrators to modify category details such as title, slug, parent category, and status. The delete action enables administrators to remove categories from the platform when no longer needed. The user can click ?Register? to register successfully into the system. The test results were found to be of high performance and the system's functionality was found to have a high level of functionality. The E-commerce system offers a clean-in-appealing interface to admins. It provides administrators with a user-friendly interface to efficiently view, organize, and control various types of media content. Key features of the system included real-time inventory and sales monitoring to prevent oversights, backorders, and customer dissatisfaction. The system can show Sales Earning analytics for Admin users. It can also show the order invoice and customer reviews in the same style. It also has a profile page which enables administrators to update information such as name, email address, user role, and profile picture. The system has the following capabilities. The overall weighted mean rating falls within the scale range of 3.26 ? 4.00, which is described as Highly Acceptable. The notification center provides an overview of all notifications, allowing admins to prioritize tasks, and stay informed about the operations beyond the administrator?s side. CocoCare was undertaken to simplify manual processes involved in managing product inventory, with the aim of assessing its positive impact on the environmental impact of each item. Each banner entry includes the essential technologies that are essential in the use of such technologies. COCOCARE: Empowering Sustainable Living with Eco-Conscious E-Commerce. The system was designed to

provide an interactive platform for users to engage in commerce related to coconutgoods and commodities. Users can search by clicking the text field "Search Product" and then input their desired product that the users are looking for, then click the Magnifying Glass Icon or "Enter" to execute successfully. Users are kept informed and engaged with this feature, resulting in good interactions and collaboration. The temporary application server for the system was housed in the US. The system is capable of notifying the admin when there is an item that is in critical status. The "Contact Us" page allows users to communicate with the system. The system was rated "Highly Acceptable" with a weighted mean table of 3.7. The ratings determined that the system achieved a "Highlyacceptable" level of functional appropriateness, with an overall weighted mean of 3.66. CocoCare is an e-commerce and inventory management system. The system was tested in three cities to evaluate the response time of the system. CocoCare was designed as the package manager for GitHub for user interface design, MS-time communication, and real-time communications. The platform included a dashboard feature that provided a summary of data analytics. The project was designed to provide business owners with user engagement and sales metrics to support informed decision-making. It was used as the application, while the Node Package Manager (NPM) was used for control. CocoCarePH was tested on a well-known cloud Platform as a Service (PaaS) with a free membership level. The system was rated as "Highly Acceptable" with a weighted mean of 3.7. The CocoCare Inventory system platform, managed by administrators, allowed for editing existing listings, adding new ones, and updating pricing details. It also allowed for edit existing listings and adding new pricing details. User Products Checkout (Edit Shipping Address) page is seen in Figure 42.

DISCUSSION

The Web-based Inventory System was created with HTML, JavaScript, Bootstrap/CSS, MySQL, and Laravel. The system was successfully tested for functionality, reliability, and response time. It was evaluated as "Highly Acceptable" according to the ISO 25010 software quality matrix. It is a platform capable of facilitating the online buying, selling, promotion, and sharing of coconut products and coconut-based items. It also generates sales reports, reducing the need for manual report preparation, which can be prone to human mistakes.