



DESIGN AND IMPLEMENTATION OF SUPERMARKET SALES AND PURCHASES RECORD SYSTEM FOR OPTIMUM TURNOVER

ABSTRACT

This paper is basically designed to transform business transaction of any setup supermarket in provisos of sales and purchases of stock for the purpose of optimization. Meanwhile, the ultimate aspiration of every businessman is maximizing profit and

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INTRODUCTION

Modern days' technologies have greatly brought a lot of undefined transformations to myriad of disciplines in which business transaction is not accepted. Automated business transaction has yielded inestimable result to those who embarked on it. Meanwhile, business transaction in broad way occurs when goods, services, or money are passed between one person, business, account, etc. and another such entity. The system you use to record business transactions will be more effective if you follow good recordkeeping practices (Ghulam, 2021). Having a good record keeping can be attained with the involvement of computer. For example, record expenses, daily sales, etc, is best to record transactions on a daily basis with optimum turnover.



minimizing loss. The system contained cash stock records which will give users prospect to add, delete, edit and update when necessary for optimum profit. Scripting Language which combined PHP and MYSQL software applications were employed as implementation system.

Keywords: *Optimization, supermarket, business transaction, PHP and MYSQL*

According to Ashley (2021), a business transaction can be as simple as buying candy from one of the retail stores in the neighborhood. Rashid (2021) expressed **business transaction** (also known as **financial transaction**) as an event that must be measurable in terms of money and that essentially impacts the financial position of the business. However, the major challenges facing businesses in the present world is competition amongst businesses and ways of overcoming challenges are improving service and product quality (Karanja, et al.,2013). Thus, there is need for transaction processing systems (TPS) which aim at improving the routine business activities on which all organizations depend. According to Ghulam (2021), it showed that there was a strong tradition of documenting business transactions in early modern South Asia and that such practice have continued into the colonial and postcolonial periods. Therefore, computerized transaction which is any activity that involves computer usage into daily sales, purchases, deposit, withdrawals, refunds and payments should not been seen as a new thing if such organization would be lagging behind for better output.

Transactions are event which need to be recorded in connection with the production, sale and distribution of goods and services.



Meanwhile, many organizations have to keep track of thousand or million of transaction every day. Every time you are performing a transaction that has to be recorded and at some point in time, used to update the balance in your account. Other examples of transaction are buying an item in a store, paying a bill. Transactions may require additions to both sides of the accounting equation, subtractions from both sides of the accounting equation, or an addition and subtraction on the same side of the accounting equation. It may be **simple** transactions which are typically a singular transaction, which may or may not happen again, between a seller and customer. Also, **complex** transactions which are transactions those require a series of dealings before finishing point. This involves buying with credit, travel through travel agency, buying a residence. Transaction may likewise be **cash or credit**. A transaction in which cash is paid or received immediately at the time when transaction occurs is known as **cash transaction**. This implies that when one sells some goods to a customer and the customer immediately pays cash for the goods purchased then it is a cash transaction because you have immediately received cash for the goods sold to your customer. In credit transactions, cash is not involved at the time of the transaction; instead, the consideration paid is after a particular time (termed as credit period). For example, when somebody sold goods to a customer on a credit basis and provided him a credit period of 30 days. So in this transaction, cash is not involved at the time of sale, but the customer will pay it after a credit period of 30 days.

The involvement of computer system into business transaction had transformed business in many facet of life. The system allows a continuous exchange of information between a computer and the person using it, so that the computer can respond immediately to the user's instructions. Such computer program is a procedure that directs



the system to alternately accept input and respond to the input for required output. Processing such a computer program allows each user to cause the system to respond based on what is required from such a system designed. If it is interactive processing, then, the system will allow the user to interact directly with a program and/or data for immediate modification, retrieving and/or displaying information. This interactive system contains cash point machines and point-of-sale terminals. Cash point machines allow you to query your balance and withdraw cash but do not update the balance until late at night while point-of-sale terminals allow access and stock file to look-up the description and price of an article when the bar-coded label is scanned, but do not alter the quantity in stock when a sale is made.

Significance of the Study

The designed system is economical, fast and accurate and able to eliminate fraud and long queue that is associated with the old system.

Statement of the Problem

One major goal of venturing into business transaction is the intention of optimization. It means every supermarket is purposefully established for profit-making. However, findings had revealed that several people had embarked on opening gigantic supermarket, pumping exorbitant amount of money which after sometimes collapsed because they eventually run into loss instead of profit. Hence, there is need to design a computerized stock-record for any setup supermarket to optimize daily sales transactions.

Software Requirement and Implementation

Software refers to series of instructions written in a particular language understandable to computer that directs a computer to perform some processing function or combination of functions.



The minimum software requirements are:

Operating system which is window 7

MYSQL

PHP (personal Home Page)

This system requirement is converted into an executable system in implementation phase. That is, the system was implemented with the use of the programming tools mentioned above. The PHP is a server-side scripting language which can be embedded in HTML or used as a stand-alone binary. PHP web pages are treated just like regular HTML pages and one can create and edit them the same way regular HTML pages are created. The PHP scripting engine is well optimized for the response times needed on web application.

MYSQL is a fast robust, relational database management system constructs that enables PHP to work together to access and display data in a readable format. It is a Structured Query Language server designed for heavy loads and processing of complex queries. It allows many different tables to be joined together for maximum efficiency and speed.

Design Approach

This section presents the method and various processes that must be taken in the course of developing the system. The program was designed in such a way that it generated the required output being designed for it. The design depended on the specifications entailed the details of the objectives and the requirements of the system. It was designed to be able to handle database and file management which takes care of the relevant fields of the system. It equally handled the input and output design specification. In achieving this, the sequences of instructions were keyed-in through the input device (keyboard and mouse) while the computer performed all the manipulative steps in



the data processing cycle automatically and the output devices gave out the result. It is highly interactive system which contains cash point machines and point-of-sale terminals. Cash point machines allow you to query your balance and withdraw cash but do not update the balance until late at night while point-of-sale terminals allow access and stock file to look-up the description and price of an article when the bar-coded label is scanned, but do not alter the quantity in stock when a sale is made.

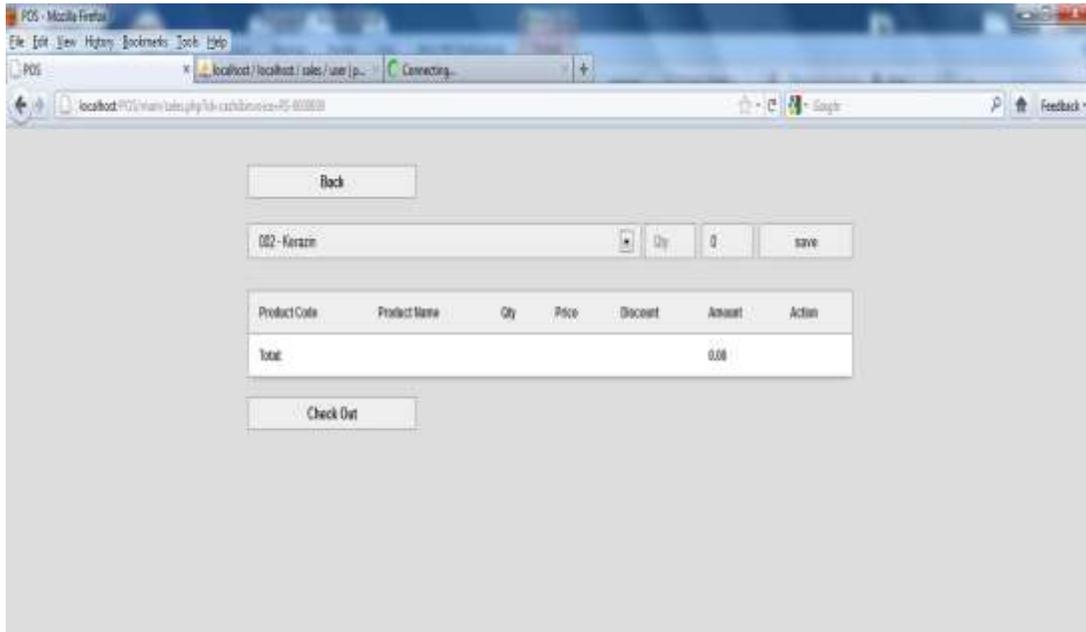
Main Menu

The users of this package navigate the whole program using the main menu. In this process, the user is expected to make his choice by clicking any of the sub-menu items. When the user is done with the operation, he exits the sub-system and goes back to the main menu.



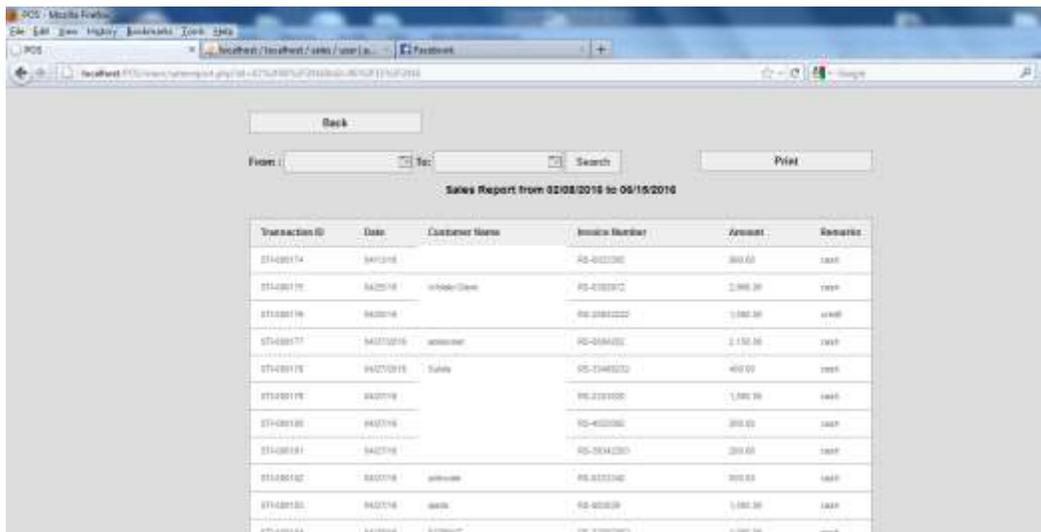
Sales (Cash/Credit)

This is where user enters sales record which may be on credit or cash and check out to print receipt for the customer.



Sales Report

This page displays the summary of all the order made within a specific time.



Add Product

The user of this package will add new product using Add Product menu. User can also edit the attributes of the existing product.



The screenshot shows a web application interface with a 'Back' button at the top left. Below it is a search bar labeled 'Search Product' and an 'Add Product' button. A table displays a list of products with the following columns: Code, Name, Cost, Price, Supplier, Qty, and Action. The table contains five rows of product data.

Code	Name	Cost	Price	Supplier	Qty	Action
001	Books	1.00	1.000.00	ABC	10	Edit Delete
002	Newsletters	1.00	1.000.00	ABC	10	Edit Delete
003	Articles	1.00	1.000.00	ABC	10	Edit Delete
004	Interviews	1.00	1.000.00	ABC	10	Edit Delete
005	Research	1.00	1.000.00	ABC	10	Edit Delete

Collection Report

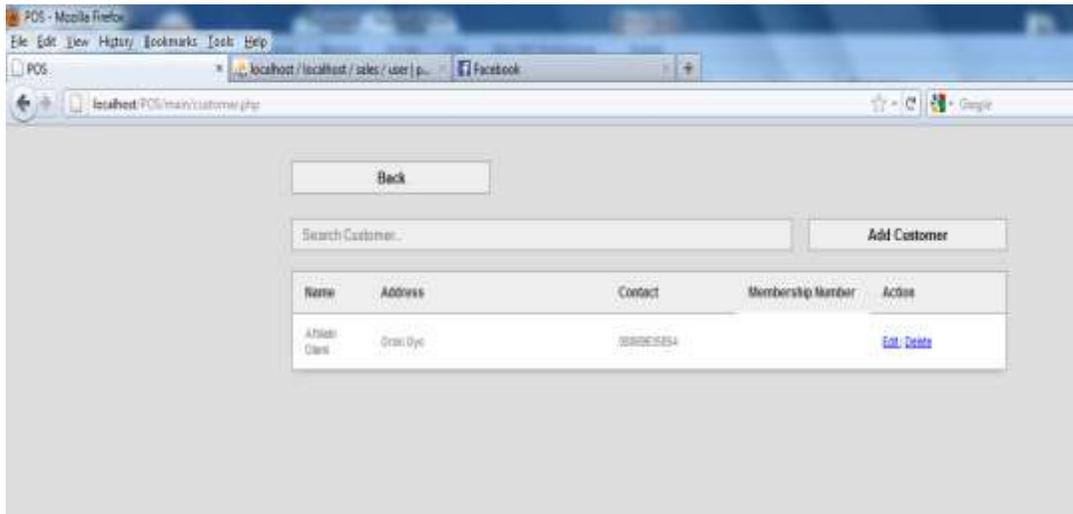
This concerns with the customers that bought items on credit. The collection report menu displays the summary of money paid by the customer and remarks.

The screenshot shows a web application interface for a 'Collection Report'. It includes a 'Back' button, a date range selector with 'From' and 'To' fields, a 'Search' button, and a 'Print' button. The report title is 'Collection Report from 02/15/2016 to 06/16/2016'. Below the title is a table with columns: Transaction ID, Date, Customer Name, Invoice Number, Amount, and Remarks. The table lists two transactions and a total row.

Transaction ID	Date	Customer Name	Invoice Number	Amount	Remarks
CTI-00015	04/05/2016	RS-20043222	IN-2028363	500.00	500
CTI-00016	04/05/2016	RS-20043222	IN-632434	300.00	
Total				800.00	

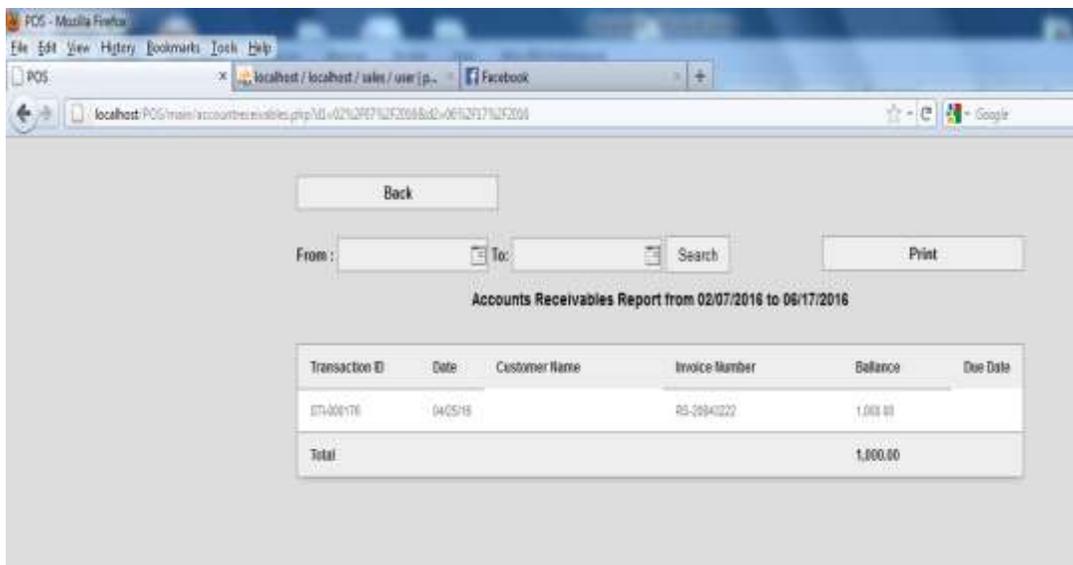
Customers Records

This menu accepts and displays the details of customers



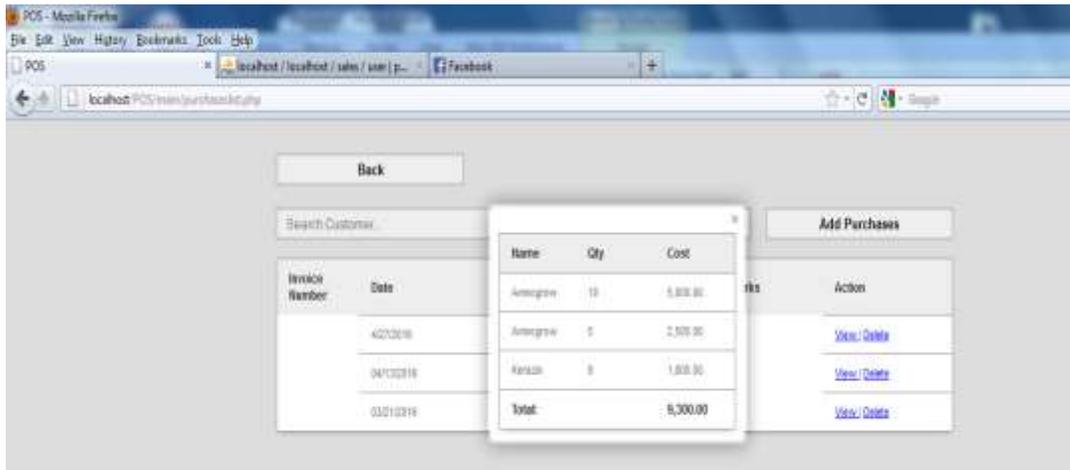
Money Receive from the Customer

This menu has to do with goods sold on credit. It displays the balance and due date of goods bought on credit basis.



Goods Purchase

It allows the users to purchase goods and add the quantity to existing items in the store.



Conclusion

Embarking on cash stock record system will boost any setup supermarket in terms of transaction and in making profit. This enables the users of the system to attend and interact with their customers without any delay. The designed system must be updated on regular bases for the betterment of such supermarket.

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