# DECLARATION

I, Edwin ngila kyalo of AdmNo. 230192, certify that this project is my own work, based on my personal study and research done. I acknowledge all the resources and materials used to come up with this project whether it was articles, class notes, reports, and any other kind of documentation.

I also certify and confirm that this project has never been submitted anywhere for academic audit and that it has not been copied in whole from any source or otherwise plagiarized from any source or persons.

I confirm that I have identified and declared all possible conflicts that I may have.

Signed and confirmed by: -

Candidate Name:

Candidate signature:

Date signed:

Supervisors Name:

Supervisors Signature:

Date signed:

# List of tables and figures

# Abstract

Table of Contents

[DECLARATION i](#_Toc136527919)

[List of tables and figures ii](#_Toc136527920)

[Abstract iii](#_Toc136527921)

[1 CHAPTER ONE 1](#_Toc136527922)

[1.1 introduction 1](#_Toc136527923)

[1.2 background of the study 1](#_Toc136527924)

[1.3 problem statement 2](#_Toc136527925)

[1.4 objectives 3](#_Toc136527926)

[1.5 scope of the Study 3](#_Toc136527927)

[1.6 justification 3](#_Toc136527928)

[1.7 budget and resources 3](#_Toc136527929)

[1.8 project schedule 3](#_Toc136527930)

[2 CHAPTER TWO 4](#_Toc136527931)

[2.1 EVALUATIVE REPORT 4](#_Toc136527932)

[3 CHAPTER THREE 5](#_Toc136527933)

[3.1 project methodology 5](#_Toc136527934)

[4 CHAPTER FOUR 6](#_Toc136527935)

[4.1 SYSTEM ANALYSIS AND REQUIREMENT MODELING 6](#_Toc136527936)

[5 CHAPTER FIVE 7](#_Toc136527937)

[5.1 SYSTEM DESIGN 7](#_Toc136527938)

[6 CHAPTER SIX 8](#_Toc136527939)

[6.1 SYSTEM IMPLEMENTATIO 8](#_Toc136527940)

[7 CHAPTER SEVEN 9](#_Toc136527941)

[7.1 LIMITATION AND RECOMMENDATIONS 9](#_Toc136527942)

[REFERENCES 10](#_Toc136527943)

[APPENDIX 11](#_Toc136527944)

# CHAPTER ONE

## introduction

what is a stock management system? A stock management system or also known as an Inventory management system is used to maintain an optimal stock level (make sure that the level of items is consistent), track goods during transit, receive new items, manage warehouse processes such as packing and distributing, preventing items from becoming outdated and prevent spoilage, and ensure your products are never out of stock.

## background of the study

The project come to my attention during an exaction to a supermarket warehouse. In this warehouse their where people walking around counting items that where in stock and noting them down in their notebooks and after the counting is done, they would tally the total and make decision based on the outcome.

This process takes them 3 to 4 hours after closing hours, and it is done four times a week, even after the process the outcome of the result is still not accurate as it should be. After research the outcome shows that it is advisable to carry out the process once every month, but this is only achievable if the organization has a fully working system in the works.

Diving in deeper to the manegment portion of the warehouse the manager complained that the number of employees that are used to take the stock is a lot and is monetary expensive to them. This problem is not faced only by them but many of the warehouses are all facing the same problem.

The warehouse also does not give an accurate estimate of the net income that it brings in because of loss of manually written recipes. Many of the supplies that bring in items operate through manually written recipes. The warehouse also has a challenge of keeping up with orders given to them by the branches of the supermarket.

Another thing is, it is hard for them to keep track of goods that are nearly or in the verge of getting expired so as to remove them from store and make space for new items to be restocked

## problem statement

The problems that stock takers came by during the operation are; over stocking as a result of under counting, items getting lost in the warehouse, the cost of items is undervalued, data lose through loss of tally sheets and supplier receipts, warehouse revenue (the amount of money that a warehouse brings in in the end of the year), keeping track of items that have or almost about to expire and keep up with branch demands.

To solve the problems that have been identified we need to know the types of systems that are used. Examples of stock management systems are: -

1. Manual inventory management system. (pen, paper and counting)
2. Periodic inventory management system. (manual system integrated with perpetual system)
3. Perpetual inventory management system. (a fully automated)

For the purpose of a well efficient, self-running system the perpetual inventory management system is the best route to take for the problem at hand. A Perpetual inventory management system is a system that is fully automated. The system checks for the levels of stock of items, tracks transactions, updating cost of items at every stage of the cycle, it also tracks sells and updates in real time.

Over stocking as a problem can be solved through the process of keeping track of items that are fast moving and items that are not fast moving. When this is taken to consideration the warehouse is able to know the items that should never run out and also know the items that should not be considered during re-stoking. The system will keep the recodes of the items in the stock and every time there is a perches the system will minus and at the end of the day show the summary of the day.

Items getting lost in the warehouse can be solved through checking in items when the suppliers bring them in. at the same time when the items are being checked in the warehouse the suppliers with manual receipts will be captured through a picture and stored for future references. During the checking in the uses is required also to enter the buying cost of the items. The system will reduce the time used for check-in by using a barcode reader that will be used to scan the bar code of the boxes for easy input and will also solve the problem of track. Tracking in the warehouse is used to follow the items from the supply end till the item is on the shelf.

A warehouse is usually a central place where goods are stored and later distributed to the branches. The system will have a messaging or an alert portal that will be able to receive alerts from the branch managers requesting items that are depleted from their holding house or giving the reports back to the warehouse manager telling him/ her that the goods have been received.

## objectives

The objectives from the problems stated are: - have a system that will receive input through the use of barcodes and manually, have a system that will track items in the warehouse, have a system that will keep recodes e.g. Supplier receipts and supply branch recodes, have a system that tracks the fast-moving items and gives the times that the fast-moving items occur, have a system that will extensively show summaries of the total sales in a month and at the end of the year, Have a system that will help in tallying items using barcodes and have a system that will contact the suppliers to restock.

## Scope of the study

The project will cover mostly on the basis of supermarket warehouses. The goal of the project is to help supermarket warehouses to keep track of goods from the time the products come from the suppliers to the storage to the end consumers. During the process a lot of activities take place and it is hard to keep up with every step from dealing with multiple suppliers, accounting for every item in the warehouse and keeping up with branch demands.

## justification

The project at hand will bring a big change to the supermarket warehouse management at large by; reducing the number of workers needed in the warehouse end of the business, budgeting for a re-stocking, avoiding human error, saving time, and improving accuracy. The project will save the organization monetary revenue when considered.

## budget and resources

to come up with the project the budget and resources to be considered is: - a well working laptop, a code editor, internet connectivity, class notes for reference and server space for web hosting.

## project schedule

Project documentation / research for the project

\*this process will continue to take place when the project

PROJECT TAKES 6 MONTHS IN TOTAL

System development for the back end (4 months)

\*Starting with the back end of the project to make a strong database for the system.

1. Develop the database – draw the entity relational diagram, develop the database
2. Integrate the barcode API with the project.
3. Consume the application for the mobile application

System development for the front end (2 months)

\*Develop a fully responsive GUI and a smart changing user interface.

1. Responsive and a good looking GUI.
2. Include Graphs and charts
3. Develop the GUI for the mobile app

# CHAPTER TWO

## EVALUATIVE REPORT

# CHAPTER THREE

## project methodology

# CHAPTER FOUR

## SYSTEM ANALYSIS AND REQUIREMENT MODELING

# CHAPTER FIVE

## SYSTEM DESIGN

# CHAPTER SIX

## SYSTEM IMPLEMENTETION

# CHAPTER SEVEN

## LIMITATION AND RECOMMENDATIONS

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# APPENDIX