**A HUMAN RESOURCE MANAGEMENT SYSTEM USING**

**SIAYA PUBLIC SERVICE BOARD AS A CASE**

**BY**

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**14/02858**

**PROJECT PROPOSAL REPORT SUBMITTED IN PARTIAL FULFILMENT OF THE AWARD OF DIPLOMA IN COMPUTING AND INFORMATION TECHNOLOGY**

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# DECLARATION

**STUDENT DECLARATION**

This project is my original work and has not been presented for the award of Diploma in Information technology in KCA University or any other university.

Signature………………………… Date……………………

Name: Bwanah Joseph Opiyo

**SUPERVISOR DECLARATION**

This project has been submitted to KCA University with my approval as university supervisor.

Signature………………………. Date…………………………

Name: James Bwire

# DEDICATION

I dedicate this work to my parents, wife and children who have always stood up with me and supported my dreams and aspirations, and given me all the financial support a child can ever need.

# ACKNOWLEDGEMENT

I am greatly indebted to the following for their contribution in realization that this project work was successful:

The Almighty God, who gave me the insight, wisdom and perseverance to accomplish this course. My parents, George Martin and Syprose Atieno for all the support, my wife, Patricia Akinyi, my children, Dalliance, Jayson and Jedi who I never had time for due to my busy schedule.

My supervisor, Mr. James Bwire who’s sounding advice helped me steer this project in the right direction, a work I will forever adore. I can also not forget to thank dearly my lecturers, Richard and Collins whose in-depths knowledge in programming, probability and statistics such as Java, PHP, SQL, SPSS and SAS was a great asset to my project.

Finally, my classmates who’s technical and moral support throughout my stay at the KCA University Computing and Information Technology studies Department was of great help.

# LIST OF ACRONYMS

EMS – Employee Management System

MSS – Management Self-Service

HRMS – Human Resource Management System

HRIS – Human Resource Information System

HR – Human Resource

HOD – Head of Department

ESS – Employee Self-Service

ST – System Thinking

PSB, SC – Public Service Board, Siaya County

IT – Information Technology

WBS – Work Breakdown Structure

ERP – Enterprise Resource Planning

DFD – Data Flow Diagram

ERD – Entity Relationship Diagram

KSAs – Knowledge Skills Attitudes

# 

# ABSTRACT

Human Resource Management System (HRMS) has become one of most vital information systems in the market. The purpose of this study is to develop an effective and efficient HRM system for ease in HR functionality and their contribution in employee management and all businesses processes of the personnel functions in the Siaya County Public Service Board and this is intended to enhance workforce planning through HRMS recruitment, training & development subsystems and succession planning subsystem as perceived by senior HR Managers in their management functions. It includes definition of various levels of hierarchy in an organization, the salary structure pertaining to every element in this hierarchy, the description of every department functioning in the organization and the overall employee database which integrates elements in all the aforementioned.

This system would allow the database administrator to have access to the entire employee database, in regards with viewing, edit employees’ details, add new employees, transfer/terminate/promote employees. Each employee in the database is assigned with a position which can be easily added and edited when need arises. Moreover employees will also be easily transferred between positions without having to retype back their information in the database. Most of all, the employer will have the opportunity to assign tasks to employees and assess their progress in order to keep track of employee performance.

This proposal presents a worthwhile area for research since I intend to take existing standards and authoritative standards for the professional practice of HRM and will apply them to a modern, well regarded and valued HRM system.

# TABLE OF CONTENTS

Table of Contents

[DECLARATION ii](#_Toc448663504)

[DEDICATION iii](#_Toc448663505)

[ACKNOWLEDGEMENT iv](#_Toc448663506)

[LIST OF ACRONYMS v](#_Toc448663507)

[ABSTRACT vi](#_Toc448663508)

[TABLE OF CONTENTS vii](#_Toc448663509)

[CHAPTER ONE 1](#_Toc448663510)

[INTRODUCTION 1](#_Toc448663511)

[1.1 Background Information 1](#_Toc448663512)

[1.2 Statement of the problem 2](#_Toc448663513)

[1.3 Aims and objectives 4](#_Toc448663514)

[1.4 Scope of the system 4](#_Toc448663515)

[1.5 Project Justification 5](#_Toc448663516)

[1.6 Weakness of the current system 6](#_Toc448663517)

[CHAPTER TWO: LITERATURE REVIEW 8](#_Toc448663518)

[2.1 Introduction 8](#_Toc448663519)

[2.2 Human Resource 8](#_Toc448663520)

[2.2.1 Human Resource Definition 8](#_Toc448663521)

[2.3 The concept of Human Resource Management System 8](#_Toc448663522)

[CHAPTER THREE: METHODOLOGY 11](#_Toc448663523)

[3.1 Introduction 11](#_Toc448663524)

[3.2 Fact finding techniques 11](#_Toc448663525)

[3.2.1 Interview 11](#_Toc448663526)

[3.2.2 Questionnaire 12](#_Toc448663527)

[3.2.3 Secondary Data Collection 13](#_Toc448663528)

[3.2.4 Observation 15](#_Toc448663529)

[3.3 System Development Methodology 16](#_Toc448663530)

[3.3.1 The Waterfall Model 16](#_Toc448663531)

[3.4 Review of Possible Development Tools and Software to be used 18](#_Toc448663532)

[3.4.1 PHP 18](#_Toc448663533)

[3.4.2 MySQL 18](#_Toc448663534)

[3.4.3 Oracle Database 19](#_Toc448663535)

[CHAPTER 4: REQUIREMENT ANALYSIS 20](#_Toc448663536)

[4.1 Introduction 20](#_Toc448663537)

[4.2 Functional Requirements 20](#_Toc448663538)

[4.3 Non Functional Requirements 22](#_Toc448663539)

[4.3.1 Performance Requirements 22](#_Toc448663540)

[4.3.2 Design Constraints 24](#_Toc448663541)

[4.3.3 Hardware Requirements 24](#_Toc448663542)

[4.3.4 Software Requirements 24](#_Toc448663543)

[4.4 System Overview 25](#_Toc448663544)

[CHAPTER 5: SYSTEM DESIGN 26](#_Toc448663545)

[5.1 Introduction 26](#_Toc448663546)

[5.2 UML Diagram 26](#_Toc448663547)

[5.2.1 Use case analysis 26](#_Toc448663548)

[5.2.2 Class Diagram 30](#_Toc448663549)

[5.2.3 Entity Relationship Diagram (ERD) 32](#_Toc448663550)

[5.2.4 Data Flow Diagram (DFD). 33](#_Toc448663551)

[5.3 Screen Layout 34](#_Toc448663552)

[5.4 Code Snippets 36](#_Toc448663553)

[5.5 Design Tools 37](#_Toc448663554)

[5.5.1 Front End Technologies 37](#_Toc448663555)

[5.5.2 Back End Technologies 39](#_Toc448663556)

[CHAPTER 6: SYSTEM TESTING AND IMPLEMENTATION 41](#_Toc448663557)

[6.1 Introduction 41](#_Toc448663558)

[6.2 Scope 41](#_Toc448663559)

[6.3 Testing Goals 41](#_Toc448663560)

[6.3.1 Unit Testing 41](#_Toc448663561)

[6.3.2 Integration Testing 41](#_Toc448663562)

[6.3.3 Regression Testing 42](#_Toc448663563)

[6.3.4 System Testing 42](#_Toc448663564)

[6.4 System Implementation 42](#_Toc448663565)

[6.4.1 Direct Cutover Deployment Strategy 43](#_Toc448663566)

[6.4.2 Phased Deployment Strategy 43](#_Toc448663567)

[6.4.3 Parallel Deployment Strategy 43](#_Toc448663568)

[CHAPTER 7: CONCLUSION AND RECOMMENDATION 45](#_Toc448663569)

[7.1 Introduction 45](#_Toc448663570)

[7.2 Achievements 45](#_Toc448663571)

[7.3 Challenges/Problems Faced 45](#_Toc448663572)

[7.4 Conclusions 46](#_Toc448663573)

[7.5 Recommendation 47](#_Toc448663574)

[BIBLIOGRAPHIC REFERENCES 48](#_Toc448663575)

[Bibliography 48](#_Toc448663576)

[APPENDIX 49](#_Toc448663577)

# LIST OF FIGURES

[Fig. 1.0 Organization Chart 3](#_Toc448667275)

[Figure 2.0 waterfall model 16](#_Toc448667276)

[Table 4.0 Actors, Use Cases and their Description 22](#_Toc448667277)

[Figure 5.0 Employee Use Case 27](#_Toc448667278)

[Figure 5.1 Head of Department Use case 28](#_Toc448667279)

[Figure 5.2 Human Resource Use Case 29](#_Toc448667280)

[Figure 5.3 Admin Use Case 30](#_Toc448667281)

[Figure 5.4 Employee Management System Class diagram 31](#_Toc448667282)

[Figure 5.7 ERD diagram 32](#_Toc448667283)

[Figure 5.8 DFD diagram 33](#_Toc448667284)

[Fig. 5.9 Admin Screen Shot 34](#_Toc448667285)

[Fig.5.10 Employee Screenshot 35](#_Toc448667286)

[Fig 5.11 Add new Employee 35](#_Toc448667287)

[Figure 6.0 Gantt Chart 49](#_Toc448667288)

# CHAPTER ONE

## INTRODUCTION

The chapter outlines the background of the study, scope, project justification, problem statement, project deliverables risks and schedules.

## 1.1 Background Information

The Human Resource Management System is a case of Siaya County Public Service Board. According to (Hendrickson, 2003), HRMS is an integrated systems used to gather, store and analyze information regarding an organization’s human resource. It is an online System that lets you keep track of all your employees and information about them. PSB, SC was established under ***Section 57*** of the ***County Government’s Act, No.17 of 2012*** as a body corporate with perpetual succession and a seal capable of suing and being sued in its own name. The primary role of PSB, SC is to provide the County with human resource that is capable of efficient and cost effective service delivery. The board is hierarchical and consists of: - Chairman PSB, SC, Ass. Chairman PSB, SC, HR manager, Training and Welfare Manager, Finance and Administrative PSB, SC and Records/IT manager. The system I intend to design will acquire, store, analyze, retrieve and utilize information to ensure that the job placement is rightfully done, with the right skills at the right time and help in managing employees efficiently without having to retype back their information in the database.

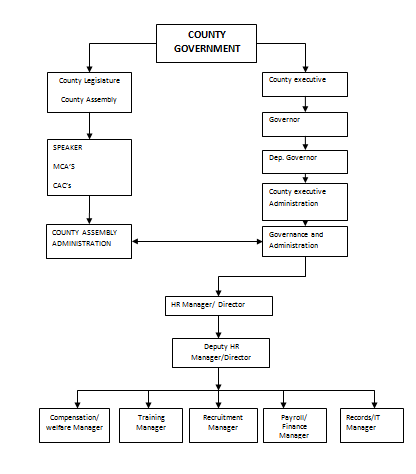
The PSB, SC has a total of 1030 employees which excludes elected and nominated members from the County Assembly and due to the large number of staffs coupled with recruitment and termination of staff at various departments, the board decided to have an online Human Resource Management System to help address the Automation of the Performance of the Employees as regard to what is monitored on them. The system will be simple to under0stand and will be used by anyone who is not even familiar with simple employees system.

## 1.2 Statement of the problem

Over the last three years, PSB, SC has been manually handling employees’ information and this poses a number of challenges. This is evident in procedures such as leave management where an employee is required to fill in a form which may take several weeks or months to be approved. The use of paper work in handling some of these processes could lead to human error, papers may end up in the wrong hands and not forgetting to mention the fact that this is time consuming. A number of current systems lack employee self-service meaning employees are not able to access and manage their personal information directly without having to go through their HR departments or their managers. Another challenge is that PSB, SC have all the employee information stored at the County headquarters and thus making it difficult to access the employee information from remote places when needed at short notice.

The above problems can be tackled by designing and implementing an interactive web based Human Resource Management System. This system will maintain employee information in a database by fully privacy and authority access. The project is aimed at setting up employee information system about the status of the employee, the educational background and the work experience in order to help monitor the performance and achievements of the employee through a password protected system.

Fig. 1.0 Organization Chart

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(Transparency Internation Kenya, 2014)

## 1.3 Aims and objectives

In this world of growing technologies everything has been computerized. With the large number of work opportunities the Human workforce has increased. Thus there is a need of a system which can handle the data of such a large number of employees. This system is fairly simple in design and implementation.

The objective of this system is to provide a comprehensive approach towards the management of HRM system. The main objectives can be summarized as follows:-

* Provide open and flexible HRM system.
* Improve paperless HRM capabilities
* Better communication, horizontal integration and streamlined processes.
* Automation of HRMS information i.e. Computerized payroll generation, manipulation and management.
* To allow connectivity of cellular phone applications
* To ensure reconciliation of individual goals with that of the organization
* Easy management of databases of various sections covering key aspects.

## 1.4 Scope of the system

The project scope defines the description of the work that is required in HRM system and will be limited to:-

* Employee details. The HR will be having an electronic access to employees’ personal profile.
* Personnel management, hiring and developing employees
* Electronic leave management. There will be complete elimination of paperwork in employee leave application by enabling both the employee and the HR manager to apply for leave and as well as check their leave status through the system.
* Recruitment Process. The admin will add an employee and a default password and employee id will be generated and sent to the new employees email. The HR manager will then have the ability to add an employee’s information to the database.
* Report generation. Processing of reports will increase

## 1.5 Project Justification

The main reason why I undertake to design this system is:-

* It’s a requirement in order to graduate for my diploma in Information Technology, at the KCA University.
* To help me apply the interpersonal skills I have learnt and even to write a technical report.
* To improve my programming skills and to challenge me to offer solution in the real world system
* To improve service delivery and improve data management and ease in retrieval of information
* To improve security of their system
* It is a planned approach towards working in the organization. The data will be stored efficiently with optimal disk space consumption in data stores which will help in retrieval of information as well as its storage under resource constraints.
* The level of accuracy in the proposed system will be higher. All operations would conform to integrity constraints and correctness and it will be ensured that whatever information is received at or sent from the centre is accurate.
* The reliability of the proposed system will be high due to the above mentioned reasons. This comes from the fact that only the data which conforms to the accuracy clause would be allowed to commit back to the disk. Other properties like transaction management and rollback during system or power failure etc get automatically taken care of by the SQL systems, which is undoubtedly an excellent choice of the rear end of the dbms system. Properties of atomicity, consistency, isolation and data security are intrinsically maintained.
* Reports generation: - Geared towards provision of a quick and efficient platform for retrieval of information. Among the queries allowed for use by the user, the query results are made available immediately, without time lapse, irrespective of the complexity of the query.

## 1.6 Weakness of the current system

* **Lack of immediate retrievals**: In the conventional system, information is distributed across several files. This might also lead to data redundancy with repetition of the same information in various files and in the event of a complex query or nested query process of searching for information becomes cumbersome.
* **Maintenance of Accuracy and Reliability issues**: With redundancy comes consistency issues as the update of information in a single record should be echoed in all records containing the same information. Also atomicity issues i.e., completion of a transaction in totality or nothing at all; has to be maintained. This is difficult in a multi-file system.
* **Lack of immediate information storage**: The information generated by various transactions takes time and efforts to be stored at the appropriate places in various files. Time overhead occurs in the case of this search and access. Also resource utilization is an issue.
* **Lack of prompt update**: Updates associated with a record in a file is to be reflected in all records wherein the particular record is present. This concurrent update poses the problem of time lag. Errors in commit operation to some particular files cause the grave issue of data inconsistency.
* **Error prone manual calculation**: Manual calculations are error prone and relatively immensely time consuming, in spite of which they may result in generation of incorrect information. Verification is another overhead, which can be saved through efficient design and implementation