# GLOBAL WOMEN FUND MANAGEMENT SYSTEM

**CASE STUDY: WOMEN FOR WOMEN INTERNATIONAL**

**BY**

**SHEMA Patrick**

**D/BBIT/16/09/04178**

**Research proposal submitted in partial fulfillment of the requirement for the award in bachelor of Business Information Technology (BBIT) submitted to School of computing information technology, University of Kigali.**

**September (2019)**

# DECLARATION

This research study is my original work and has not been presented by any other person and has not been presented to any other institution. . No part of this research should be reproduced without the authors’ consent or that of University of Student’s Name: **SHEMA Patrick**

Sign Date

Declaration by the supervisor(s)

This research has been submitted with our approval as The University of Kigali Supervisor(s).

Name: **Mr. NDARISHIZE Innocent**

Sign Date

For and on behalf of University of Kigali

Head of Department

Name: Ms. Mercy M. NYAKUNDI

Sign Date

For and on behalf of University of Kigali

Dean, School/Faculty

Sign Dates

# DEDICATION

This proposal is gratefully dedicated to:

God Almighty,

Parents,

Brothers and sisters,

Friends, family and relatives,

My supervisor,

And all people who will see this proposal.

# ACKNOWLEDGEMENT

I have taken efforts in this proposal. However, it would not have been possible without the kind support and help of lectures, friends. I would like to extend my sincere thanks to all of them.

I am highly indebted to lecturer **Mr. NDARISHIZE Innocent** for his guidance and constant supervision as well as for providing necessary information regarding the proposal& for his support in completing the proposal.

My thanks and appreciations go to my classmates. Above all, I would like to express my gratitude to Almighty God for providing me all these great people & the strengths to complete this proposal.

ABSTRACT

The main aim of this research proposal is to design and implement “**women global fund management system”** for women global fund NGO,s; this is an interactive web application based system to **women global fund** in which it is used as the management

Tool for applying for the fund and the selection of poor women to be funded.

It has been developed based on the information obtained from Rwandan citizens and NGOs by means of interview, observations as the instrument of data collection.

The project was focused on **women global fund** because of the problem of lacking the digital way which can help them to provide an easy way of application without physical meet up during, automate, speed up, and store the selection of women to be funded.

PHP, jvascript, CSS Apache and HTML were used as programming language and software such as adobe macromedia and xampp were used to design this application.

Table of Contents

[I.DECLARATION i](#_Toc16795368)

[II.DEDICATION ii](#_Toc16795369)

[III.ACKNOWLEDGEMENTS ii](#_Toc16795370)

[IV.ABSTRACT iii](#_Toc16795371)

[CHAPTER ONE 1](#_Toc16795372)

[GENERAL INTRODUCTION 1](#_Toc16795373)

[1.1. BACKGROUND OF THE STUDY 1](#_Toc16795374)

[1.2 PROBLEM STATEMENT 1](#_Toc16795375)

[1.3 OBJECTIVES OF THE PROJECT 1](#_Toc16795376)

[1.3.1 General objective: 1](#_Toc16795377)

[1.3.2 Specific objectives 2](#_Toc16795378)

[1.4 Research Questions 2](#_Toc16795379)

[1.5.1 Content scope 3](#_Toc16795380)

[1.5.2 Time scope 3](#_Toc16795381)

[1.5.3 Geographical scope 3](#_Toc16795382)

[1.6 SIGNIFICANCE OF THE PROJECT / INTEREST OF THE PROJECT 3](#_Toc16795383)

[1.6.1 Personal interest 3](#_Toc16795384)

[1.6.2 Institution interest 3](#_Toc16795385)

[1.6.3 Public interest 4](#_Toc16795386)

[1.7 limitation of the project 4](#_Toc16795387)

[1.8 ORGANIZATION OF THE PROJECT 4](#_Toc16795388)

[CHAPTER TWO 5](#_Toc16795389)

[LITERATURE REVIEW 5](#_Toc16795390)

[2.1INTRODUCTION 5](#_Toc16795391)

[2.1. 1.DEFINITIONS OF THE KEYWORDS 5](#_Toc16795392)

[a.Employee 5](#_Toc16795393)

[d. Human resource Manager. 5](#_Toc16795394)

[e. Admin 5](#_Toc16795395)

[Admin in this system is anyone who is legally in the system and has duties to manage the entire system like troubleshooting of a system, backup and recovery.(Collins dictionary, 2019). 5](#_Toc16795396)

[f. System 6](#_Toc16795397)

[g.Information 6](#_Toc16795398)

[h.Information system 6](#_Toc16795399)

[i.Information Technology 6](#_Toc16795400)

[k. Operating System 6](#_Toc16795401)

[2.2 Review of Past Studies 6](#_Toc16795402)

[2.2.1 LOCAL (IN RWANDA) 6](#_Toc16795403)

[2.2.2 CONTINENTAL (IN AFRICA) 9](#_Toc16795404)

[Sage HR Africa 9](#_Toc16795405)

[2.2.3 GLOBAL 10](#_Toc16795406)

[1.OrangeHRM 10](#_Toc16795407)

[2.3.2 Simple HRM 11](#_Toc16795408)

[2. Waypoint HR 12](#_Toc16795409)

[2.3 Existing system 14](#_Toc16795410)

[Problems of the existing system 15](#_Toc16795411)

[2.4. Proposed system 15](#_Toc16795412)

[2.4.1 Theoretical / Conceptual Framework 15](#_Toc16795413)

[2.4.2 Critical Review 16](#_Toc16795414)

[CHAPTER THREE 17](#_Toc16795415)

[RESEARCH METHODOLOGY 17](#_Toc16795416)

[3.1 INTRODUCTION 17](#_Toc16795417)

[3.2 Data Collection Techniques 17](#_Toc16795418)

[3.2.1 Documentation 17](#_Toc16795419)

[3.2.2 Internet Research 17](#_Toc16795420)

[3.2.3 Interview 17](#_Toc16795421)

[3.2.4 Observation 18](#_Toc16795422)

[3.3: Software Engineering Methods 18](#_Toc16795423)

[Figure1: Waterfall model 19](#_Toc16795424)

[3.4 Organization of the Project 20](#_Toc16795425)

[3.5 SYSTEM SPECIFICATION 20](#_Toc16795426)

[3.5.1. Hardware specifications 20](#_Toc16795427)

[3.5.2. Software specifications 20](#_Toc16795428)

[3.7 CONTEXT (level 0) DIAGRAM 21](#_Toc16795429)

[Figure 2:Context Diagram 22](#_Toc16795430)

[22](#_Toc16795431)

[3.9 ENTITY RELATIONSHIP DIAGRAM 24](#_Toc16795432)

[3.10 PHYSICAL DATA MODAL (PDM) 25](#_Toc16795433)

[3.11 DATA DICTIONARY 26](#_Toc16795434)

[3.12 Tools and languages to be used in software development 27](#_Toc16795435)

[HTML 27](#_Toc16795436)

[PHP 27](#_Toc16795437)

[CSS 27](#_Toc16795438)

[MySQL 27](#_Toc16795439)

[Apache web server 28](#_Toc16795440)

[3.13 BIBLIOGRAPHY 28](#_Toc16795441)

List of Figures:

[Figure 2: conceptual framework 18](#_Toc13476325)

[Figure 3: Waterfall model 22](#_Toc13476326)

[Figure 4: context framework 24](#_Toc13476327)

[Figure 5 ; Dfd level0 25](#_Toc13476328)

[Figure 6: Dfd level1 25](#_Toc13476329)

[Figure 7: Erd 26](#_Toc13476330)

[Figure 8: physical data modal 27](#_Toc13476331)

**List of Tables:**

[Table 2 Data Dictionary 27](#_Toc13476414)

**List of Abbreviation**

BSC: Broadband System Corporation

ICT: Information Communication Technology

CDN: Content Delivery Networks

HTML: Hypertext Markup Language

PHP: Hypertext Preprocessor

DFD: Dataflow Diagram

ERD: Entity Relationship Diagram

PDM: Physical Data Model

SQL: Structured Query Language

# 

# CHAPTER ONE

# GENERAL INTRODUCTION

## 1.1. BACKGROUND OF THE STUDY

The **Global fund** for **women** is an international grant making foundation that support groups working to advance the human rights of **women** and **girls.** They advocate for and defend **women’s** rights by making grants to support **women’s** around the world.

The main aim of this research proposal is to design and implement **“ women global fund management system**” for **women global fund NGO** ; this is an interactive web application based system to **women global fund** in which it is used as the management tool for applying for the fund and the selection of poor women to be funded.

It has been developed based on the information obtained from Rwandan citizens and NGOs by means of interview, observation as the instrument of data collection.

The project was focused on **women global fund** because of problem of lacking the digital way which can help them to provide an easy way of application without physical meet up during , automate, speed up, and store the selection of women to be funded .

PHP, Javascript,CSS Apache and HTML were used as programming language and software such as Adobe macromedia and xampp were used to design this application.

## 1.2 PROBLEM STATEMENT

Women Grobal fund is the the NGO that support the poor Women by funding their small project, the project to be funded must be passed through selection and the competitive ones are the one to be funded, but the system of selection and application is made traditional where a women need to drops here application document to the office and then wait to be called for his rersponse, although this system is currently used but it has many problems with it:

1. Time consuming
2. Batch of people to the office during application time
3. Slow process
4. Money consumption
5. difficulty retrieving of data

## 1.3 OBJECTIVES OF THE PROJECT

### 1.3.1 General objective:

The general objective of this project is to develop and implement a system that makes easy and faster the process of Women application and selection to GLOBAL WOMEN FUND which is **“ women global fund management system**, This will facilitate easy way of application without physical meet up during , automate, speed up, and store the selection of women to be funded .

**women global fund management system** will be an application within interactive and user friendly interface for any time anywhere service to WOMEN GLOBAL FUND

### 1.3.2 Specific objectives

* Provide interactive interface for the system
* establishing the way the women can apply
* help WOMEN GLOBAL FUND can view the application document
* And it Provide the way the Women GLOBAL FUND can publish the winners
* Provide the database for historical records
* To reduce time consuming during application process

## 1.4 Research Questions

* How the system will Provide interactive interface for the system ?
* How the system will establish the way the women can apply?
* How the system will help WOMEN GLOBAL FUND to view the application document?
* How the system will Provide the way the Women GLOBAL FUND can publish the winners?
* How the system will Provide the database for historical records?
* How the system will reduce time consuming during application process?

**1.5 The scope of the project**

Scope is the part of **project** planning that involves determining and documenting a list of specific **project** goals, deliverables, features, functions, tasks, deadlines, and ultimately costs. In other words, it is what needs to be achieved and the work that must be done to deliver a **project**.

### 1.5.1 Content scope

Our research will emphasize in WOMEN GROBAL FUND as the case study, our project focuses on the following contents:

* Creating an interactive web based application with a way in which will facilitate WOMEN GROBAL FUND application process

### 1.5.2 Time scope

This project will be done in 4 months, and after these months, these problems I listed above will be overcomed,the easy way of publish product online will be available**.**

### 1.5.3 Geographical scope

This project is for WOMEN GROBAL FUND which is in Rwandan but also no limit to abroad NGOs

*1.6 SIGNIFICANCE OF THE PROJECT / INTEREST OF THE PROJECT*

### 1.6.1 Personal interest

This work is helpful for me to pass an academic background The knowledge from ,will be helpful for me for further studies and competency on labor market.

### 1.6.2 Institution interest

This ending university studies work is for students who are completing their university study where each student should be able to carry out his/her our research concerning the enterprises at his/her choice and organize the files of that enterprise.

Within this work the research has considered two academic interests:

* **Primary,** the ministry of education will be ensured that the student who is going to get the certificate is capable of producing a work on his field of student (i.e. Able to do something in ICT).
* **Secondary**, the findings of this project will be and useful for future researchers and other people who are interested in the same field of study.
* **University,** this knowledge will be helpful to the students for further studies and competency on labor market. The findings of this project will be and useful for future researchers and other people who are interested in the same field of study

### 1.6.3 Public interest

It will help other researchers for new information to make their own system, every it will get the job with no complexity and they will find how to use their theory studies information practice by working with the system implemented

## 1.7 limitation of the project

This project will not provide the graphical chat between employee, the communication method are done outside the system by using telephone or email.

## 1.8 ORGANIZATION OF THE PROJECT

This work is divided into three main chapters:

**The first chapter** will be the general introduction which will contain the background of the problem, hypothesis of projection of language, Objectives of projects, organization of project, scope and as well as limitation and delimitations of the projects.

**The second chapter** is about literature review, whereby we will talk about from different point of views of various authors and reseachers’contributions and findings.to this subject within this system, we are going to study the functioning of existing system and suggest solution for existing system problem.

**The third chapter** is research design and methodology

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1INTRODUCTION

The purpose of this chapter is to provide the theory of definitions of the key concepts that were used in this dissertation, the comparison of this work with many others, and the contribution to solve the problems found in the read dissertation.

## 2.1. 1.DEFINITIONS OF THE KEYWORDS

This chapter explains the technical terms we have used, and some tools that we have used when designing this system. Those definitions we have read them in different locations, some from different websites, and others from the notes from our different teachers. In order to make this work more understandable to clarify some of it keywords.

### a.NGO

a non-profit organization that operates independently of any government, typically one whose purpose is to address a social or political issue (oxford,2019).

### b. Admin

### Admin in this system is anyone who is legally in the system and has duties to manage the entire system like troubleshooting of a system, backup and recovery.(Collins dictionary, 2019).

## c. System

**System**: A system is a collection of elements or components that are organized for a common purpose. The word sometimes describes the organization or plan itself (and is similar in meaning to method, as in “I have my own little system”) and sometimes describes the parts in the system (as in “computer system”).(IS Dictionary 2010).

## d.Information

Information is defined as data that have been processed and presented in a form suitable for human interpretation, often with the purpose of revealing trends or patterns.(**John K, 1999).**

### e.Information system

Information system is a set of people, procedures and resources that collects, transforms and disseminates information in an organization; a system that accepts data resources as input and processes them into information products as output; a system that uses the resources of hardware, software and people to perform input, processing, output, storage and control activities that transform data resources into information products; a purposefully designed system that brings data, computers, procedures, and people together to manage information important to an organization's mission. (Harris F, 1997).

## f.Information Technology

Information technology is a contemporary term that describes the combination of computer technology (hardware and software) with telecommunication technology (data, image, and voice networks).( James bluier, 2010)

## g. Operating System

The Operating System is the software that shares a computer system's resources (processor, memory, disk space, network bandwidth, and so on) between users and controls access to the system to provide security. (willian K, Arthur J, 2005)

## 2.2 Review of Past Studies

### 2.2.1 LOCAL (IN RWANDA)

As Technology is key point for Rwanda development , in several areas but still there is huge gap where the technology is not implemented in some providing some services. According to the research done in several ONGs there is no current system that provides online services for women fund applications, whoever there are other web application that provide online application services services . the following are some examples of those application

A.EFMIS

EFMIS is web based application system that allow students in Rwanda to apply to gorvement loans to the their university studies.

In this system the student can sent their application documets, and also all selection process are made through the system

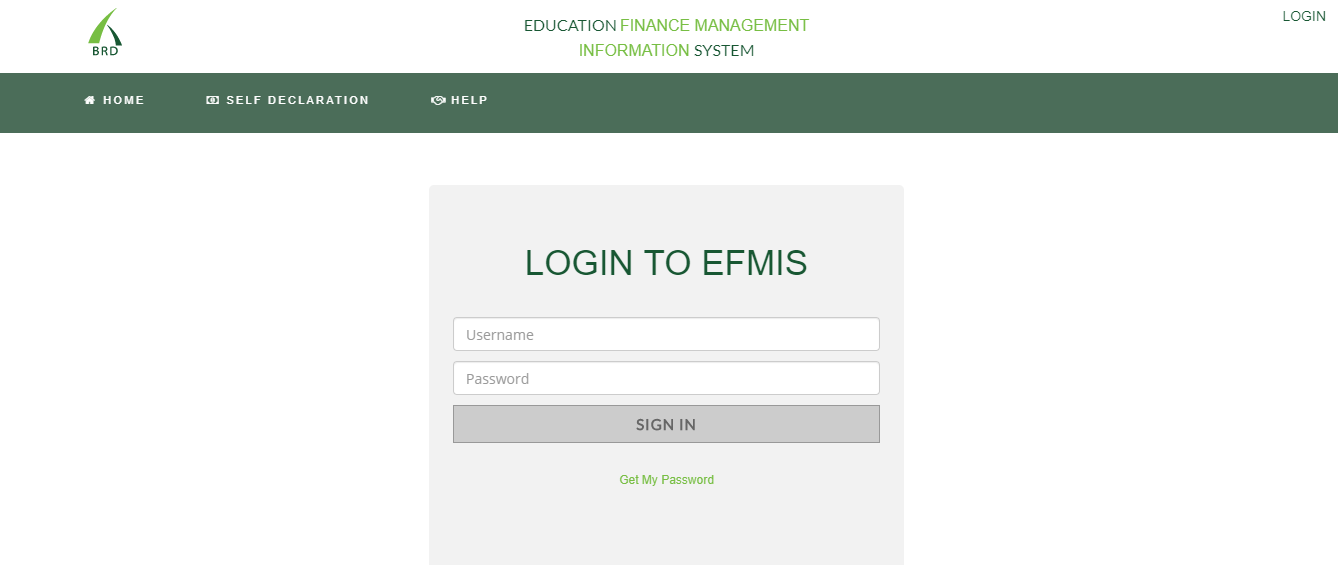


FIGURE 1.2 SNAPSHOT OF EFMIS.

## 2.3 Existing system

One of the strategies used to develop new system is to have good understanding to the current system, how it works and its weaknesses. The analysis will give a clear indication of the problems faced in the current system and give suggestion on how to solve the problems.

GROBAL WOMEN FUND use manual system to get women application and selection. Even though this means is a working system, but it still have many challenges

1. The women needs to drop application documents to the office

2.After receiving the application document , the selected women is announced by means of phone

Problems of the existing system

The main problem with this traditional application system are:

1.Time consuming

2.Batch of people to the office during application time

3.Slow process

4.Money consumption

5.difficulty retrieving of data

## 2.4. Proposed system

The proposed solution is to develop a system that will make easy and faster the process of women application and selection.

### **2.4.1 Conceptual Framework**

Women

Submit application

View response

Women global fund information system

ADMIN

See the application documents

Respond application

Retrieve the history

### 2.4.2 Critical Review

The main aim of this research proposal is to design and implement **“Employee management system**” for EGECOR CREDO Ltd ; this is an interactive web based system to EGECOR CREDOLTD in which it is used as the management tool for Employees.

It has been developed based on the information obtained from Rwandan companies by means of interview, observation as the instrument of data collection.

The project was focused on EGECOR CREDO Ltd because of problem of lacking the digital way which can help them to automate their employee daily activities and it is difficult to reach to a good management of employee. And this cause many problems such as time consuming, bad management of Human resource, where there are difficulties way to retrieve records about employee such as **employee's** personal details, medical information, salary details, attendance/leave records, **employee** performance and other details.

PHP, Apache and HTML were used as programming language and software such as Adobe macromedia and Xampp were used to design this application.

The contribution of this project is of high value to Rwanda market where they find someone to publish their markets.

# CHAPTER THREE

# RESEARCH METHODOLOGY

### **3.1 INTRODUCTION**

The development of a system is a work which requires much attention and effort. The main goal of a new system is to satisfy the needs of users by solving problems faced with the existing system. Deep analysis of users’ needs will most of the time lead to a useful software development as a system might give perfect result. (Alan.D, 2007)

## 3.2 Data Collection Techniques

In programming, the methodology is defined as an organized documented set of procedures and guidelines for one or many phases of software life cycle, such as analysis or design. The following techniques and methods were used in EGECOR CREDO Ltd

### 3.2.1 Documentation

This method is to read documents about what you need to research without talking to anybody. This was the main method used while collecting all information required to private companies and market publishing. Consulting documentation around the world has been one of the favorite techniques used to carry out this research work. (Grad, 2016)

### 3.2.2 Internet Research

This is the method to collect data where you search information on internet what people are doing and how they do things. I used this method when I visited the social media and other online research like (Grad, 2016)

### 3.2.3 Interview

The technique of interview is a formal meeting in person used gathers information or facts about a specific subject. This technique has been helpful in terms of information gathering. I had an interview with technical department, business department of EGECOR CREDO Ltd . They explained me all process done to publish the market and all process done till the required goods or services is delivered or supplied. (Grad, 2016)

### 3.2.4 Observation

This is the method to collect data where you observe what people are doing and how they do things, is also process of recording the behavior of people, object and occurrences without questioning or communicating with them. I used this method when I sited in the Technical department and in the Sales department, I learnt much from that time about how they prepare to publish their market. (Grad, 2016)

## 3.3: Software Engineering Methods

The waterfall model is the system development methodology that used during the development of online product publication system’s web application for managing online products publication in sale department

The waterfall Mode refers to a linear-sequential life cycle model. In waterfall model, each phase must be completed fully before the next phase can begin. At the end of each phase, a review takes place to determine if the project is on the right path and whether or not to continue or discard the project. In waterfall model, phases do not overlap.

The waterfall model is a sequential design process, often used in software development processes, in which progress is seen as flowing steadily downwards through the phases of conception, initiation, analysis, design, construction, testing and maintenance. The figure below shows the sequence of phases followed in software development by using waterfall model.

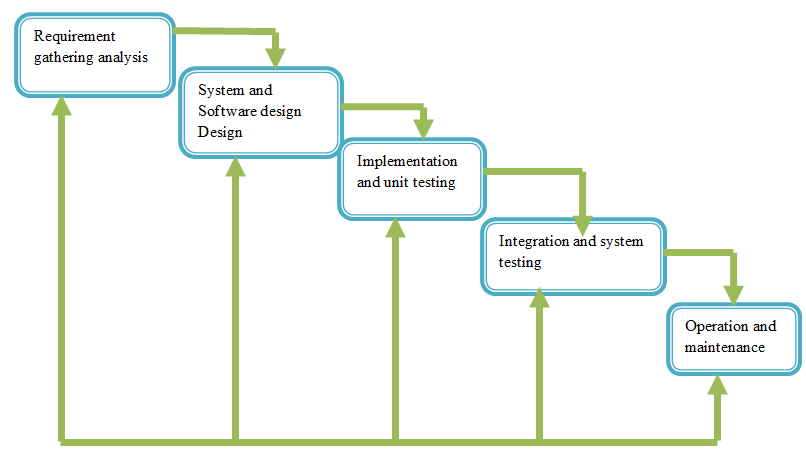
**Figure** 1**: Software lifecycle in waterfall model with the stages.**

**Source**: Own drawing.

The sequential phases in Waterfall model that are used in the development of this project are:

* **Requirement Gathering and analysis:**All possible requirements of this system to be developed are captured in this phase and documented in a requirement specification doc. example of the requirement are the data to be used.
* **System and Software Design:** The requirement specifications from first phase are studied in this phase and system design is prepared. System Design helps in specifying hardware and system requirements and also helps in defining overall system architecture. the database and graphical interface of the project are developed here.
* **Implementation and Unit testing:** With inputs from this system design, the system is first developed in small programs called units, which are integrated in the next phase. Each unit is developed and tested for its functionality which is referred to as Unit Testing.
* **Integration and System Testing:** All the units developed in the implementation phase are integrated into a system after testing of each unit. Post integration the entire system is tested for any faults and failures.
* **Operation and Maintenance:** There are some issues which come up in the client environment. To fix those issues patches are released. Also to enhance the product some better versions are released. Maintenance is done to deliver these changes in the customer environment.

All these phases are cascaded to each other in which progress is seen as flowing steadily downwards (like a waterfall) through the phases. The next phase is started only after the defined set of goals are achieved for previous phase and it is signed off, so the name "Waterfall Model". In this model phases do not overlap.



## Figure1: Waterfall model

## 3.4 Organization of the Project

This work is divided into three main chapters:

**The first chapter** will be the general introduction which will contain the background

Of the problem, hypothesis of projection of language,

Objectives of projects, organization of project, scope and as well as limitation and delimitations of the projects.

**The second chapter** is about literature review, whereby we will talk about from

Different point of views of various authors and reseachers’contributions and findings

To this subject within this system, we are going to study the functioning of existing

System and suggest solution for existing system problem

**The third chapter** is research design and methodology

## 3.5 SYSTEM SPECIFICATION

### 3.5.1. Hardware specifications

Here, the hardware specifications which must hold in order to use this system are the following.

* A computer with the following specification:
* 1 Ram 512 MB
* 1 Processor 1.20 GHZ
* 2 Hard disks 20 GB

### 3.5.2. Software specifications

1. **on the server side**

* windows operating system
* A windows-based server application that is responsible for accepting HTTP request.

The package must be including: Apache 2.2,11, MYSQL 5.1.30, and php vision 4 or 5.

* Phpmyadmin version 3.1.1 for database management.
* Ethernet Card and internet connection.

1. **On the client side**

* Window and lunix operating system
* Web client
  1. **FUNCTIONAL REQUIREMENT**

1. Provide interactive interface for the system

2.provide the way the women can apply

3.Provide the way that WOMEN GLOBAL FUND can view the application document

4. Provide the way the Women GLOBAL FUND can publish the winners

5.Provide the database for historical records

6.To reduce time consuming during application process

## 3.7 CONTEXT (level 0) DIAGRAM

### 

### Figure 2:Context Diagram

3.8DATA FLOW DIAGRAM

### C:\Users\User\Desktop\projects\shema project\dfd level0.PNG

Figure 3; Dfd level0

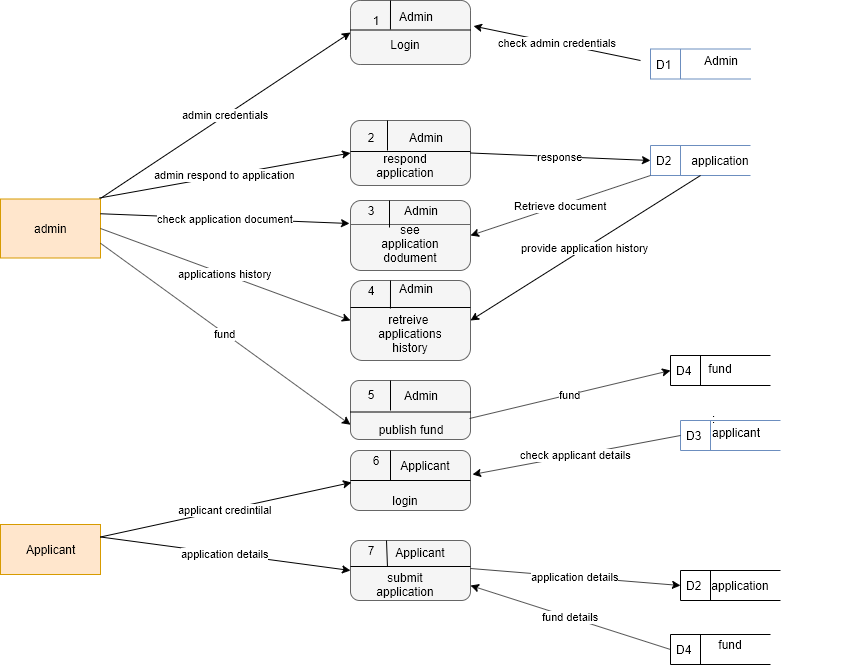
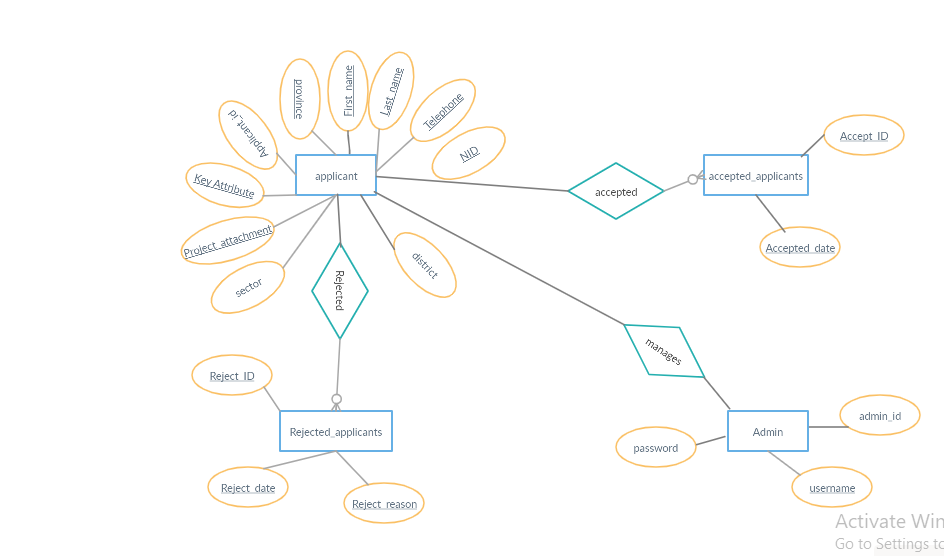


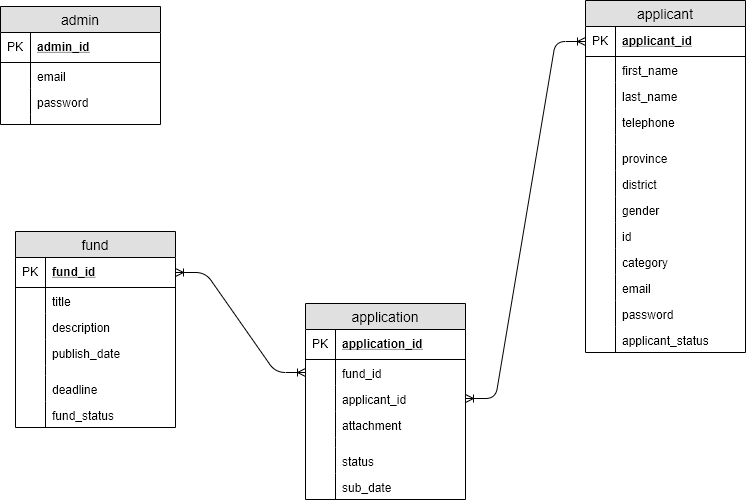
Figure 4, DFD level 1

## 3.9 ENTITY RELATIONSHIP DIAGRAM



## 3.10 PHYSICAL DATA MODAL (PDM)

This model diagram illustrates the organization of data in the database that stores data for the database system. It describes all the details and the relationship between the tables that make up the database.



## 3.11 DATA DICTIONARY

|  |  |  |
| --- | --- | --- |
| Table 1 **: applicant** | | |
| **FIELD** | **DATA** **TYPE & SIZE** | **INTEGRITY** |
| Applicant\_id | Integer | Primary key |
| First\_name | Varchar(45) | Not null |
| Last\_name | Varchar(45) | Not null |
| Telephone | Varchar(100) | Not null |
| id | Integer(30) | Not null |
| province | Varchar(100) | Not null |
| district | Varchar(100) | Not null |
| gender | Varchar(100) | Not null |
| category | Varchar(100) | Not null |
| email | Varchar(100) | Not null |
| password | Varchar(100) | Not null |
| Applicant\_status | Varchar(100) | Not null |

|  |
| --- |
| Table 2 : **fund** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Fund\_id | | Int(11) | | | Primary key |
| title | | Varchar (255) | | | Not null |
| description | | | Varchar (255) | | Not null |
| publish\_date | | | Varchar (255) | | Not null |
| deadline | | | Varchar(255) | | Not null |
| Fund\_status | | | Varchar(255) | | open |
|  | | |  | |  |
| |  |  |  | | --- | --- | --- | | Table 3: | **applicantion** |  | | Application\_id | Int(11) | Primary key | | Applicant\_id | Int(11) | Not null | | Fund\_id | Int(11) | Not null | | Reject\_reason | Varchar(100) | Not null | | attachment | Varchar(100) | Not null | | Sub\_date | Varchar(100) | Not null | | status | Varchar(100) | pending | | | | | | |
| Table 4: | **ADMIN** | | |  | |
| Admin\_id | Int(11) | | | Primary key | |
| Password | Varchar(255) | | | Not null | |
| email | Varchar(255) | | | Not null | |

## 3.12 Tools and languages to be used in software development

### HTML

Hypertext Markup Language (HTML) is a markup language designed for creating web pages, that is, information presented on the World Wide Web. Defined as a simple "application" of SGML, which is used by organizations with complex publishing requirements, HTML is now an Internet standard maintained by the World Wide Web Consortium (W3C). The most recent version is HTML 4.01, though it has been superseded by XHTML.

### PHP

Acronym: Hypertext Pre-processor. PHP is a server-side scripting language for creating dynamic Web pages. You create pages with PHP and HTML. When a visitor opens the page, the server processes the PHP commands and then sends the results to the visitor's browser. PHP is Open Source and cross-platform. PHP runs on Windows NT and many UNIX versions.

### CSS

Cascading Style Sheets (CSS): A style sheet language used to describe the presentation of a document written in a markup language. Its most common application is to style web pages written in HTML and XHTML, but the language can be applied to any kind of XML document. CSS is a W3C Standard.

### MySQL

MySQL is an open source relational database management system (RDBMS) that uses Structured Query Language (SQL), the most popular language for adding, accessing, and processing data in a database. Because it is open source, anyone can download MySQL and tailor it to their needs in accordance with the general public license.

### Apache web server

Often referred to as simply Apache, a public-domain open source Web server developed by a loosely-knit group of programmers. Apache has been the world’s most popular web server (HTTP Server) on the internet since April 1996 and is generally considered to be more stable than other servers.

The original version of Apache was written for UNIX, but there are now versions that run under OS/2, Windows and other platforms.

# Chapter four

## 4.0system analysis, design and implementation

This chapter describes the development of **“ women global fund management system**”. It includes a brief overview of the technologies used to make this software.

## 4.1 introduction to the study

The **Global fund** for **women** is an international grantmaking foundation that support groups working to advance the human rights of **women** and **girls.** They advocate for and defend **women’s** rights by making grants to support **women’s** around the world.

The main aim of this research proposal is to design and implement **“ women global fund management system**” for **women global fund NGO** ; this is an interactive web application based system to **women global fund** in which it is used as the management tool for applying for the fund and the selection of poor women to be funded.

It has been developed based on the information obtained from Rwandan citizens and NGOs by means of interview, observation as the instrument of data collection.

The project was focused on **women global fund** because of problem of lacking the digital way which can help them to provide an easy way of application without physical meet up during , automate, speed up, and store the selection of women to be funded .

PHP, Javascript,CSS Apache and HTML were used as programming language and software such as Adobe macromedia and xampp were used to design this application.

## 4.2 system study

### 4.2.1 weakness observed in existing system

One of the strategies used to develop new system is to have good understanding to the current system, how it works and its weaknesses. The analysis will give a clear indication of the problems faced in the current system and give suggestion on how to solve the problems.

**Global fund** as well as other many NGOs in Rwanda ,They use books and papers to manage their applications . Even though is a working system, but still there are many challenges

This is the overview of how current system works in its 3 main steps.

1. The **Global fund** Advertise their fund to the radios, TVs and newspapers.

2. The Applicant the drop the application documents to **Global fund** office.

3. The **Global fund** communicate the winner’s through mobile phone or email

the employees records manual.

### Problems of the existing system

The main problem with this traditional application system are:

1.Time consuming

2.Batch of people to the office during application time

3.Slow process

4.Money consumption

5.difficulty retrieving of data

## 4.3 system analysis

System design is the process determines how the functionalities specified in the analysis model will be implemented. It has a purpose of creating a technical solution that specifies the functional requirements for the system. Also system design is the process of defining the architecture, components, modules, interfaces, and data for a system to satisfy specified requirement. System design could be seen as the application of the systems theory to product development.

### 4.3.1 user requirement of the proposed system

4.3.1.1 functional requirement of the proposed system

1. Provide interactive interface for the system:

The system will provide easy , interactive and understandable user interface

2.provide the way the women can apply:

The system will provide an easy way of fund application

3.Provide the way that WOMEN GLOBAL FUND can view the application document:

The system will allow an easy way for WOMEN GLOBAL FUND to view applicant documents

4. Provide the way the Women GLOBAL FUND can respond to the applicant the winners

5.Provide the database for historical records:

The system will keep all the records.

### 4.3.1.2 non functional requirement

The non-functional requirements serves as constraints or restrictions or polices on the system. Nonfunctional requirements describes how the system should work and in which condition the system should be allowed to work. (Grad, 2016)

* **Security**
  + For the user to be allowed to use the system must be have administrators permission
  + The system should notify administrator when the user fails to login tree times
* **Reliability**
  + The system must keep data for the user and keep confidential files without exposing clients.
* **Performance**
  + Availability
    - The new system must be available 24 hours per day (everyday)
    - The system should be accessible on any browser
    - The system should be accessed from any where
  + Speed
    - The interaction/communication between the user and the system must be as fast as possible
  + Capacity
    - The new system must have all necessary storage for data to be saved
* + The system must display pages according to the user’s request

## 4.3.2system requirement

### Hardware specifications

Here, the hardware specifications which must hold in order to use this system are the following.

* A computer with the following specification:
* 1 Ram 2GB
* 1 Processor 1.60 GHZ
* Hard disk 1 GB

### Software specifications

1. **on the server side**

* windows operating system
* A windows-based server application that is responsible for accepting HTTP request.

The package must be including:XAMPP

* Ethernet Card and internet connection.

1. **On the client side**

* Windows and lunix operating system
* Web browser

## 4.3.3 Use Case Diagram of the new system

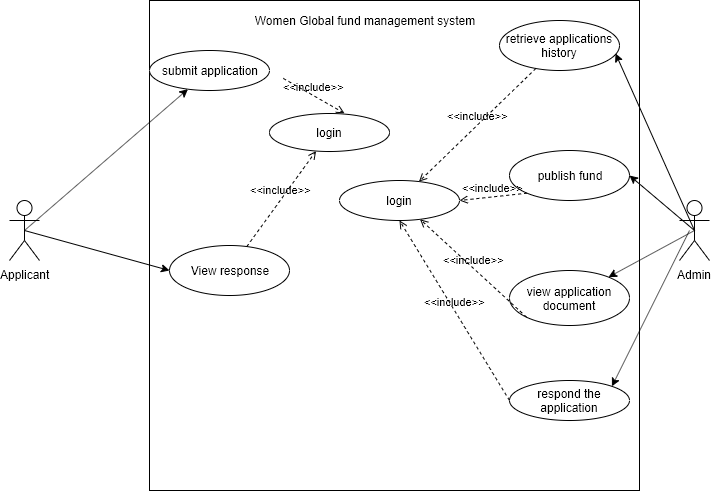
****

Figure 3: **Use case Diagram**

A Use Case is a methodology used in system analysis to identify, clarify, and organize system requirements. The use case is made up of a set of possible sequences of interactions between systems and users in a particular environment and related to a particular goal. The use case should contain all system activities that have significance to the users.

Use Case description details what a use case do, and what it requests in order to be well executed. Each use case description looks like this:

* Name: A name of a use case
* Description: What a system intends to do
* Actor: The actor involved in the use case
* Pre-condition: The system state before the use case can begin
* Post-condition: The system state when the use case is over
* Normal flow: The actual steps of the use case
* Alternative flow: Steps which may happen in case a normal flow fails.

## 

## 4.4 system design

System design is the first phase of the system development life cycle in which you and the user develop a concrete understanding of how the system will operate. Systems design is the process of defining the architecture, components, modules, interfaces, and data for a system to satisfy specified requirements.

## 4.4.2 Architectural design

System architecture diagram is a diagram of a system, in which the principal parts or functions are represented by blocks connected by lines that show the relationships of the blocks.

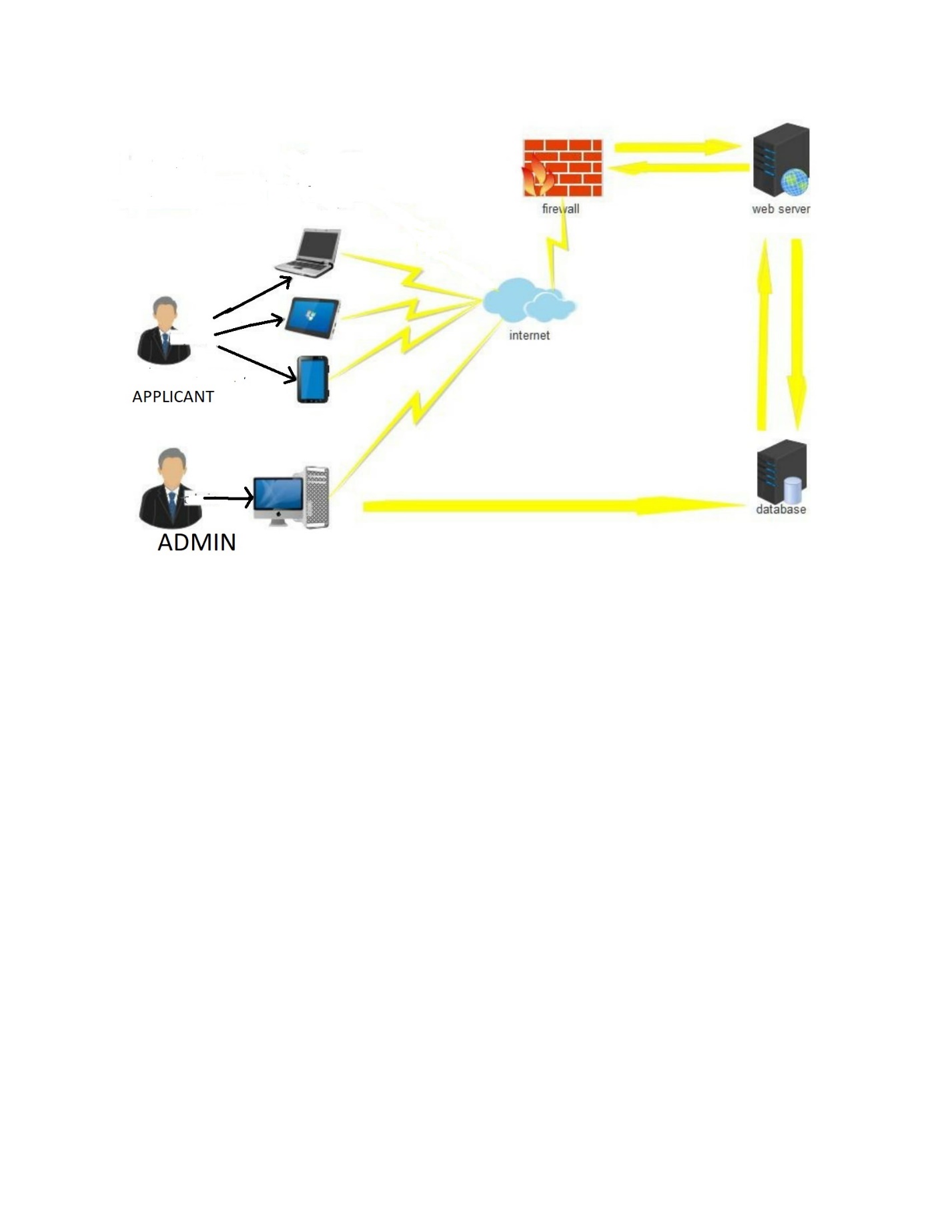


Figure 4: architecture design

For employee to access browser they should use cell phone or lap top, then see the published market. The browser should interact to web server and the web server request data to database. Database retrieve data to web server.

The Firewall is used to control what traffic is allowed to travel from one side to the other, also can block traffic according to particular IP addresses or server ports. When configured correctly, firewalls also provide protection against threats including denial of service (DOS) attacks.

## 4.4.3 Class diagram

UML class diagrams show the classes of the system, their inter-relationships, and the operations and attributes of the classes. A class model is comprised of one or more class diagrams and the supporting specifications that describe model elements including classes, relationships between classes (Dennis, 2009).

The figure below shows the class diagram of the online market publishing for private company information system.

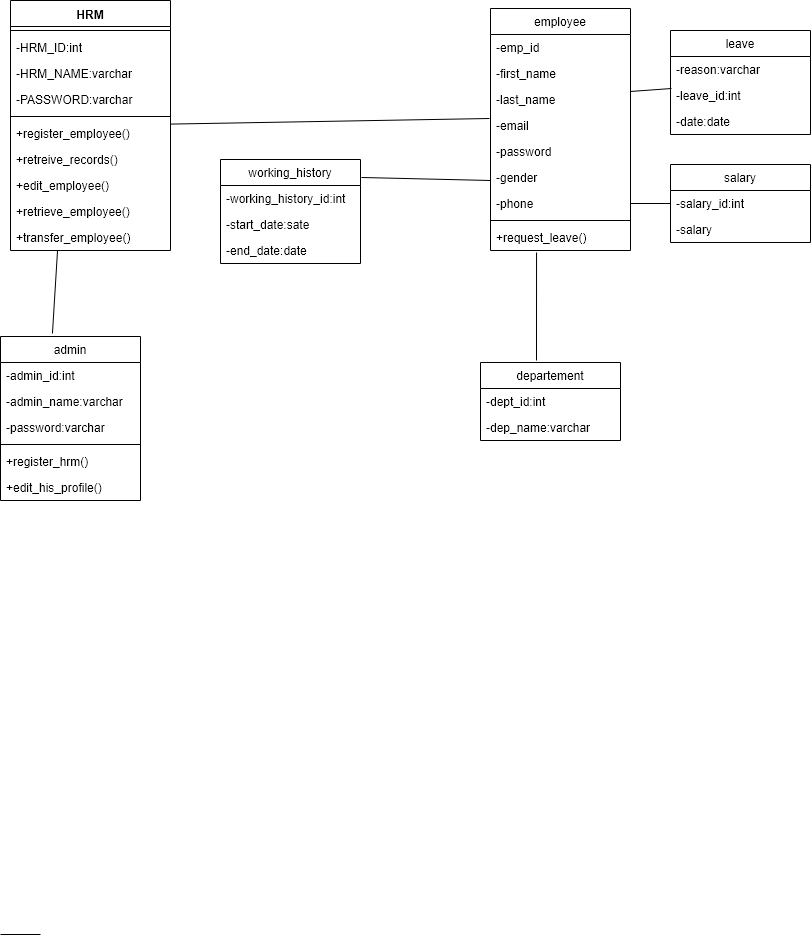


Figure 5:class diagram

### Database schema diagram

Database schema diagram is a set of collection of information that is organized so that it can easily be accessed, managed, and updated. Database Management System (DBMS) are referred to as database software tools which are primarily used for storing, modifying, extracting, and searching for information within database.

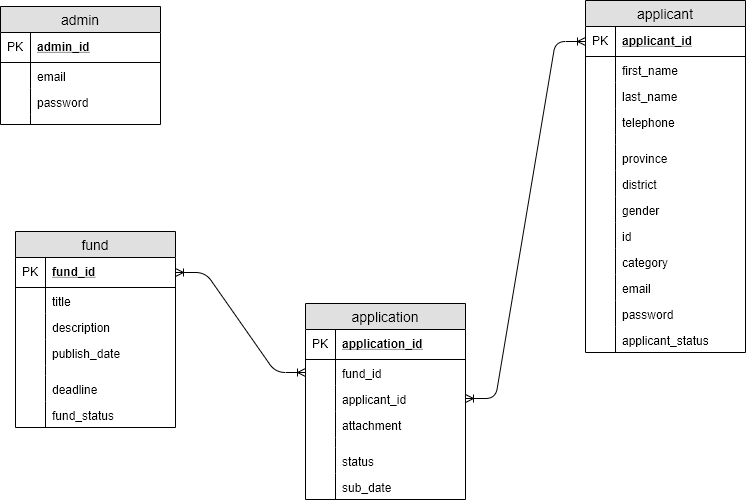


Figure 6:database design

## 

## 4.4.4 CONTEXT (level 0) DIAGRAM

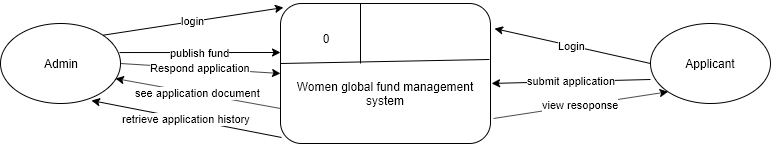


Figure 7:Context Diagram

## 

## 4.4.5 Data Flow Diagram

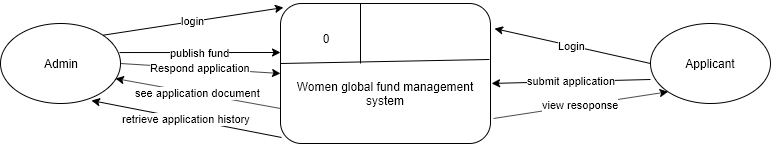
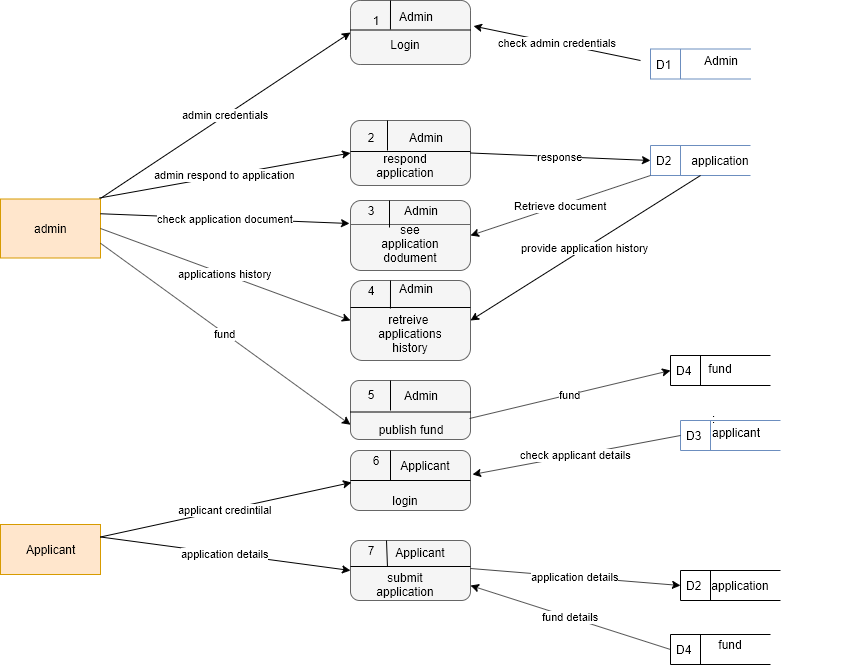


Figure 8 ; Dfd level0

Figure 9: Dfd level1

## 4.4.6 ENTITY RELATIONSHIP DIAGRAM

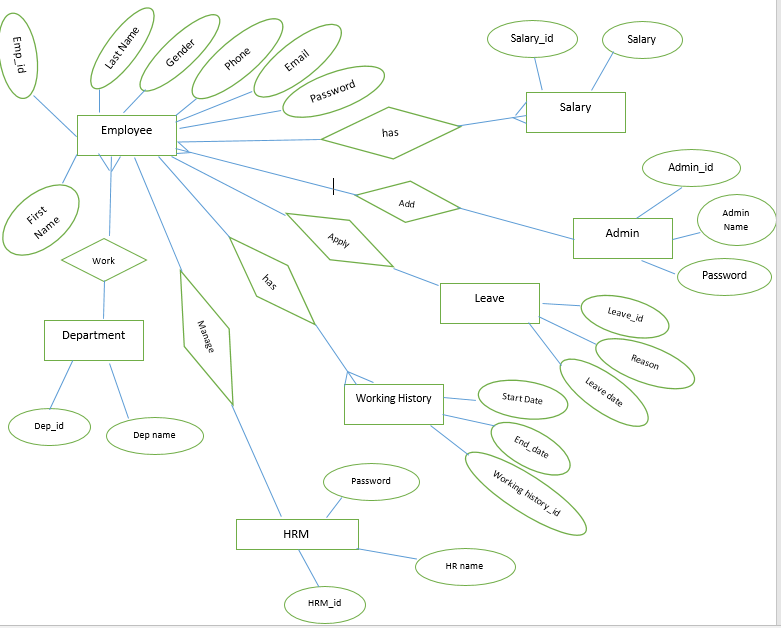


Figure 10**: Erd**

## 

## 4.4.7 DATA DICTIONARY

|  |  |  |
| --- | --- | --- |
| Table 1 **: applicant** | | |
| **FIELD** | **DATA** **TYPE & SIZE** | **INTEGRITY** |
| Applicant\_id | Integer | Primary key |
| First\_name | Varchar(45) | Not null |
| Last\_name | Varchar(45) | Not null |
| Telephone | Varchar(100) | Not null |
| id | Integer(30) | Not null |
| province | Varchar(100) | Not null |
| district | Varchar(100) | Not null |
| gender | Varchar(100) | Not null |
| category | Varchar(100) | Not null |
| email | Varchar(100) | Not null |
| password | Varchar(100) | Not null |
| Applicant\_status | Varchar(100) | Not null |

|  |
| --- |
| Table 2 : **fund** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Fund\_id | | Int(11) | | | Primary key |
| title | | Varchar (255) | | | Not null |
| description | | | Varchar (255) | | Not null |
| publish\_date | | | Varchar (255) | | Not null |
| deadline | | | Varchar(255) | | Not null |
| Fund\_status | | | Varchar(255) | | open |
|  | | |  | |  |
| |  |  |  | | --- | --- | --- | | Table 3: | **applicantion** |  | | Application\_id | Int(11) | Primary key | | Applicant\_id | Int(11) | Not null | | Fund\_id | Int(11) | Not null | | Reject\_reason | Varchar(100) | Not null | | attachment | Varchar(100) | Not null | | Sub\_date | Varchar(100) | Not null | | status | Varchar(100) | pending | | | | | | |
| Table 4: | **ADMIN** | | |  | |
| Admin\_id | Int(11) | | | Primary key | |
| Password | Varchar(255) | | | Not null | |
| email | Varchar(255) | | | Not null | |

Table 1

## 4.5 system implementation

## Graphical interface of Employee Management System

## Home page

Home page is the main page with some links that provide users with options to interact with the system such as create account as well as login into the system.

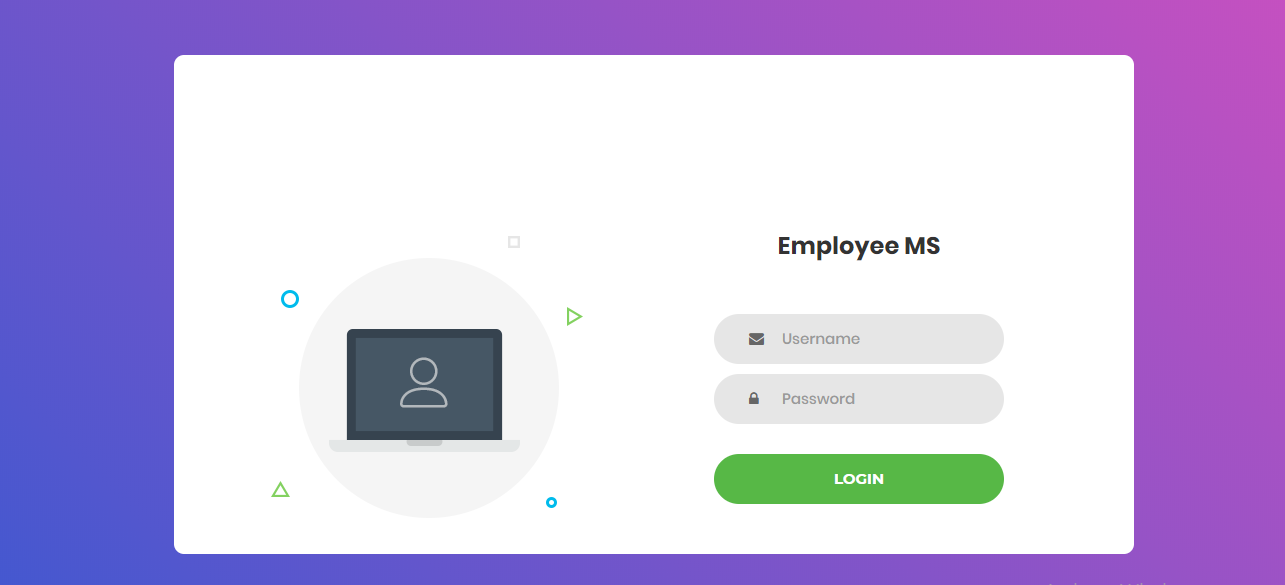
****

Figure 11:home page

## Registration page

This where applicant will use to register in order to apply to the fund

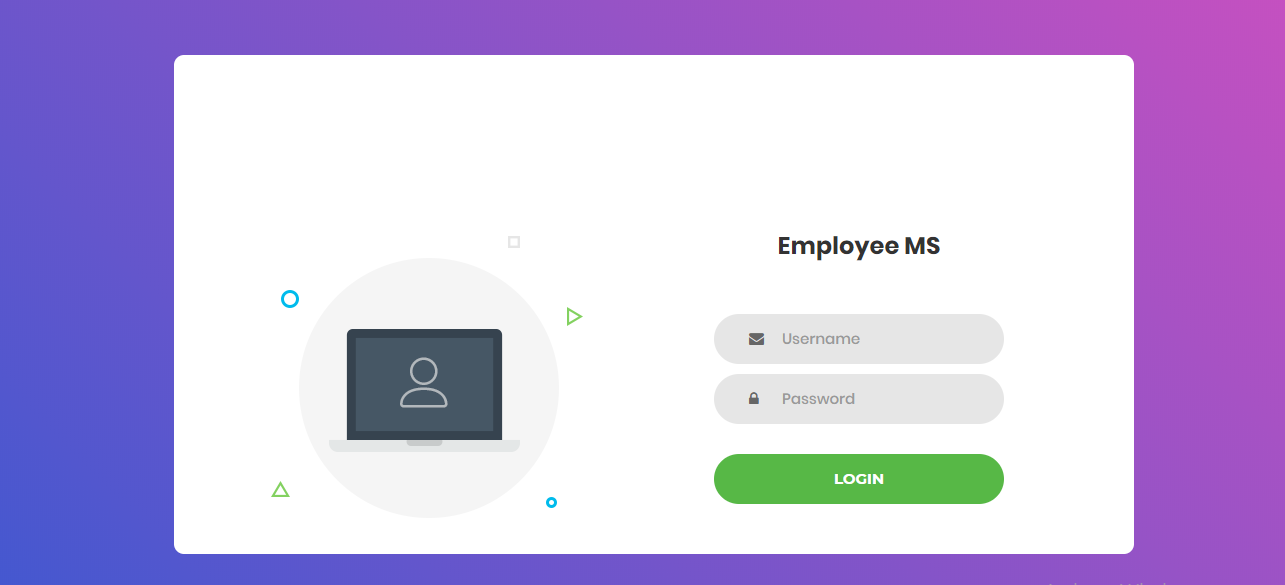
****

Figure 12:Registration page

## Login page

This is where a user will use to enter his account

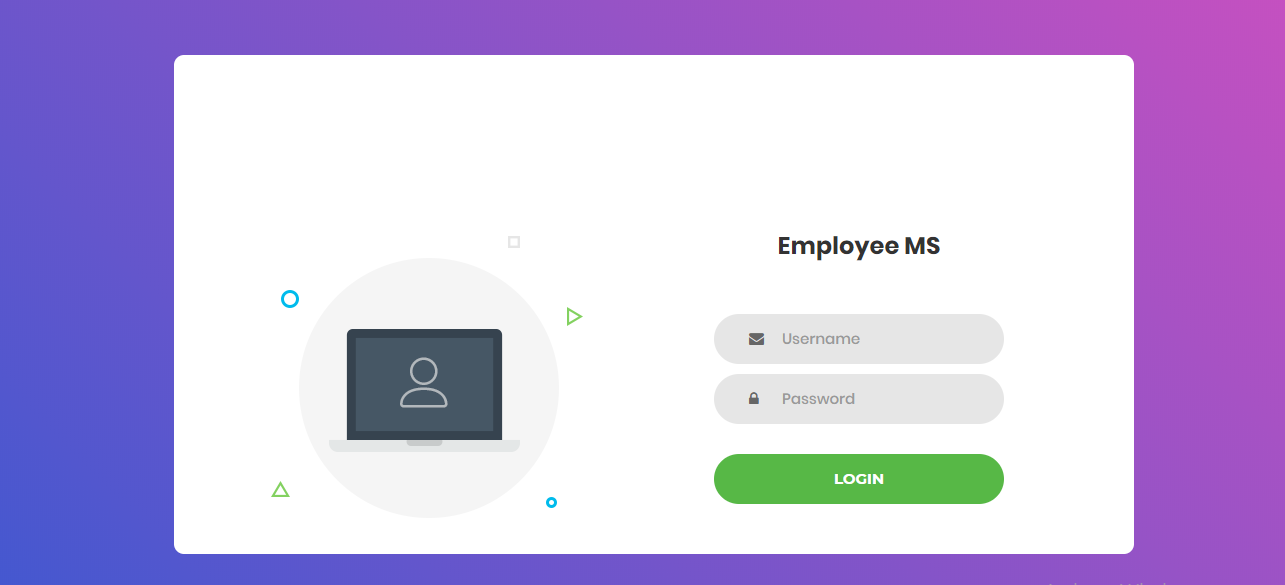
****

Figure 13:login page

## Admin dashboard page

This is the page where admin will be using to manage applications

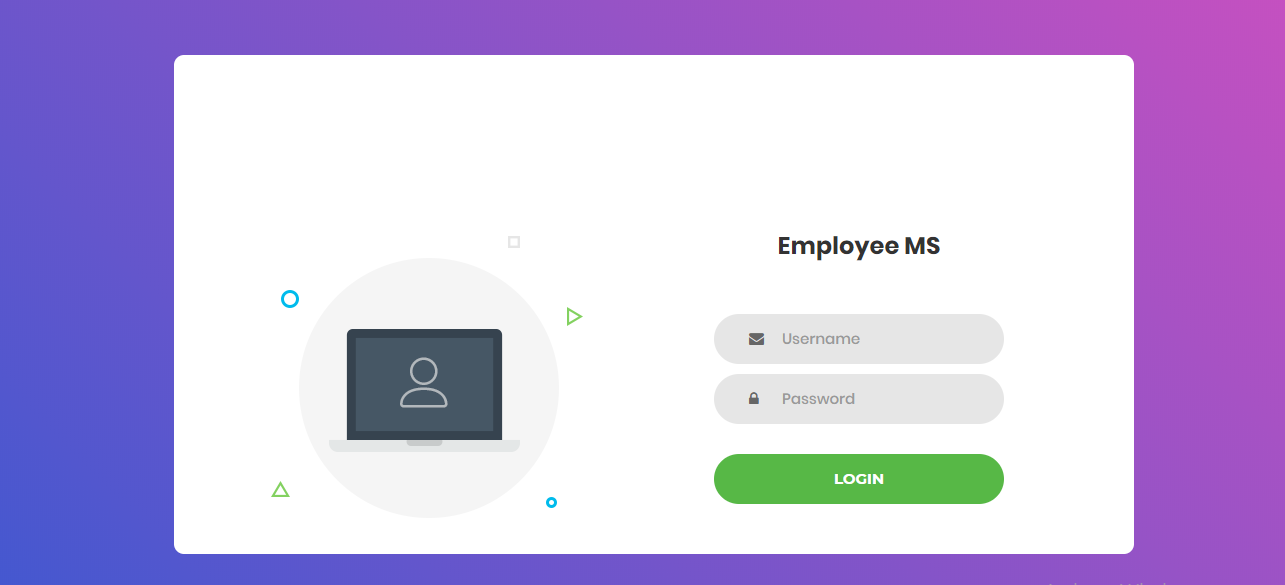
****

Figure 14:Admin dashboard page

## Applicant dashboard page

This the page that will be used by applicant to apply to the funds and view responses to their applications

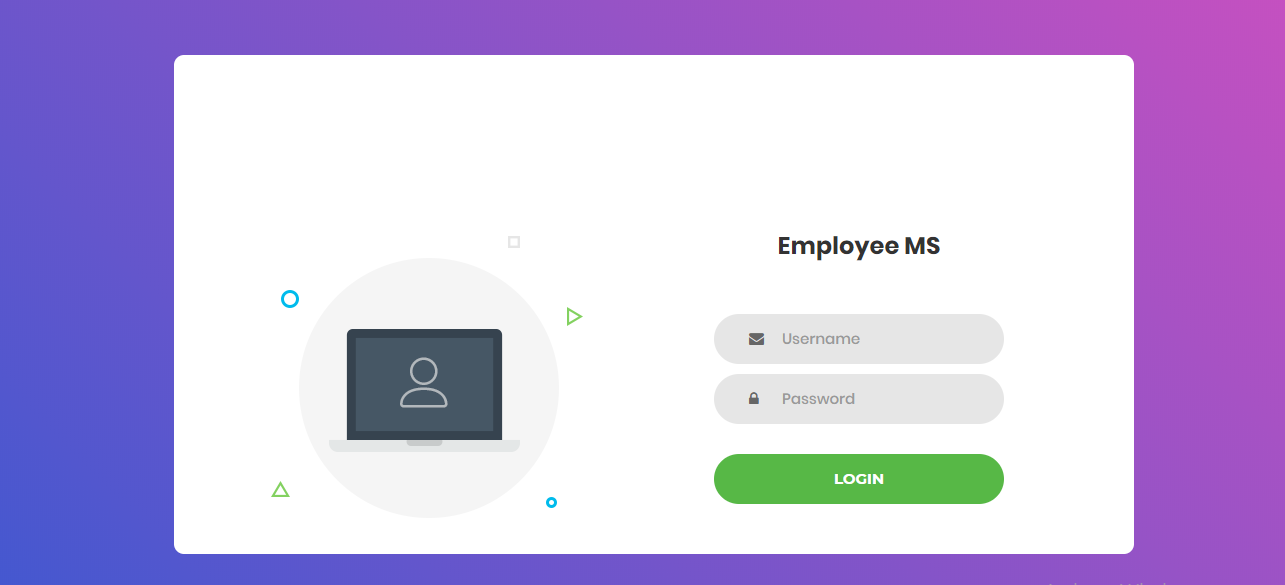
****

Figure 15:applicant dashboard page

## 4.6 system testing

## Software Testing

Software tests play an important role in the software designing. They help to verify the effectiveness of the software to see if it actually does what it was supposed to solve.

Listed are key aspects to take into consideration in software testing

* Does the application meet the requirements that guided its design and development?
* Does the application works as expected?
* Can the application be implemented with the same characteristics and satisfies the needs of the stakeholders?

The following are some software testing

**The Unit Test:** Unit testing is a process to ensure the proper function in particular software or a portion of a program. It is a method by which individual units of source code, sets of one or more computer program modules together with associated control data, usage procedures, and operating procedures, are tested to determine if they are fit for use. Indeed, the unit test is an efficient means that permits to detect the maximum possible mistakes. The application has been checked with the unit test at each piece of the code written.

**The Integration test**: is the phase in software testing in which individual software modules are combined and tested as a group. This test is useful to check the assembly of the different part of the software. It is also a progression of tests, in which the software and hardware components are collected and tested until the entire system is tested. The application modules have been successively tested until completion to ensure that the whole constituted by the assembled software components answers to the required functional and technical specifications (Gerard, 2002).

**The Validation test:** The last test phase has the role of validating the software in its external environment. The product has been put in final situation in order to verify if it perfectly answers to the needs expressed in the first phase. The validation test is important, since it is necessary to verify if the setting up of the application corresponds to the expressed needs. The application has been tested in its entirety, and it is in this way that we noticed that the progress of operations done corresponds to the functional specifications (Bernd Bruegge & Allen H. Dutoit, 2010).

# 

# CHAPTER FIVE

## CONCLUSION AND RECOMMENDATIONS

## 

### Conclusion

The accomplishment of this research is the work that took enough time as it is described in five chapters of this research and the implementation of the web based system (**Design And Implementation of an Women Global fund management system**) which is considered as the tool made to solve problems faced by system users in the current system.

The main object of this project was to design and implement the **Women Global fund management system** for Women Global fund and the applicants for fund application and management. This system is designed in the way that will a solution to the applications and its management.

It provide also a very trusted communication channel between Global fund and applicants private.

## 3.13 BIBLIOGRAPHY

**Books**

During the execution of this application, we have used different books and website for getting more information and over knowledge.

* **[1] Database processin**g by David Kroenke and David j. awer edition 12, publisher in 2012.
* **[6] Dictionary of computer terms** by Douglas and Michael Covington, published in 1986.

**Online references**

1. [2] [http://databasev.co.uk/primary-foreign-key-constraints.html/visited on 14/04/2016](http://databasev.co.uk/primary-foreign-key-constraints.html/visited%20on%2014/04/2016)
2. [3] [http://www.softpanorama.org/SE/software\_life\_sycle\_models.shtml/visited on 04/06/2016](http://www.softpanorama.org/SE/software_life_sycle_models.shtml/visited%20on%2004/06/2016)
3. [5]<http://wwwcommentcamarche/sql/sqlintro/php3#LDD(phyusical> data model)/ visited on 03/07/2016

4.SDLC - Iterative model (2016) Available at: https://www.tutorialspoint.com/sdlc/sdlc\_iterative\_model.htm (Accessed: 5 October 2016).

5.Nevogt, D. (2016) Employee management system: Why and how to start using One. Available at: http://blog.hubstaff.com/employee-management-system/ (Accessed: 5 October 2016).

6.Review of literature on employee management : (10/18/2016 ,10 :34am ) https://www.ukessays.com/essays/management/review-of-literature-on-employee-management-management-essay.php

7. (Grad, 2016)

8. (Alan.D, 2007)

9.(oxford dictionary,2019).

### 10.(Collins dictionary, 2019).

11.https://www.globalfundforwomen.org

# APPENDICES

## Sample codes used for user login

<?php

session\_start();

include 'db.php';

if(isset($\_POST['login']))

{

    if(isset($\_POST['email']))

    {

        $email=$\_POST['email'];

        $\_SESSION['email'] = $email;

    }

    if(isset($\_POST['password']))

    {

        $password=$\_POST['password'];

    }

    $query=mysqli\_query($conn,"select \* from applicant where email='$email' and password='$password'") or die("selecting error");

    $count=mysqli\_num\_rows($query);

    $row=mysqli\_fetch\_assoc($query);

    $applicant\_id=$row['applicant\_id'];

    $\_SESSION['userId']=$applicant\_id;

    $first\_name=$row['first\_name'];

    $\_SESSION['name']=$first\_name;

    if($count==1)

    {

        if ($row["applicant\_status"]== "active")

        {

            echo"<script>location.href='applicantdashboard.php';</script>";

        }

        else

        {

            echo "<div class='alert alert-danger'>Sorry you seem to be blocked,You are not allowed to use this system,Please contact admin to activate you!</div>";

        }

    }

        elseif ($count!=1)

        {

        $query=mysqli\_query($conn,"select \* from admin where email='$email' and password='$password'") or die("selecting error");

        $s=mysqli\_num\_rows($query);

        $row=mysqli\_fetch\_assoc($query);

        if($s >0)

        {

            echo"<script>location.href='admin\_dashboard.php';</script>";

        }

        }

}

?>

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <meta http-equiv="X-UA-Compatible" content="ie=edge">

    <title>Sign Up Form by Colorlib</title>

    <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/css/bootstrap.min.css" integrity="sha384-ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw1T" crossorigin="anonymous">

    <!-- Font Icon -->

    <link rel="stylesheet" href="fonts/material-icon/css/material-design-iconic-font.min.css">

    <!-- Main css -->

    <link rel="stylesheet" href="css/style.css">

</head>

<body>

<header>

  <nav class="navbar navbar-expand-md navbar-dark fixed-top bg-dark">

    <a class="navbar-brand" href="index.php">Women grobal fund</a>

    <button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#navbarCollapse" aria-controls="navbarCollapse" aria-expanded="false" aria-label="Toggle navigation">

      <span class="navbar-toggler-icon"></span>

    </button>

    <div class="collapse navbar-collapse" id="navbarCollapse">

      <ul class="navbar-nav mr-auto">

        <li class="nav-item active">

          <a class="nav-link" href="index.php">Home <span class="sr-only">(current)</span></a>

        </li>

      </ul>

      <form class="form-inline mt-2 mt-md-0">

      <a class="btn btn-warning  btn-sm" href="register.php" role="button">Sign up</a>

        <a  class="btn btn-outline-warning btn-sm" href="login.php" role="button">Login</a>

      </form>

    </div>

  </nav>

</header>

    <div class="main">

    <div style="background: black;border-radius:12px" class="container">

            <div class="signup-content">

                <div style="opacity:0.3"  class="signup-img">

                    <img src="images/signup-img.jpg" alt="">

                </div>

                <div class="signup-form">

                    <form method="POST" class="register-form" id="register-form">

                        <h2 class="text-warning">applicant Login form</h2>

                        <?php if(isset($\_POST['login'])) :?>

                        <?php if ($count !=1 ): ?>

                        <?php if($s != 1): ?>

                        <div class='alert alert-danger'>incorrect password or email, Please try again</div>

                      <?php endif ?>

                      <?php endif ?>

                      <?php endif ?>

                        <div class="form-group">

                            <label  class="text-light" for="birth\_date">E-mail :</label>

                            <input style="border-radius:12px" type="email" name="email" id="birth\_date">

                        </div>

                        <div class="form-group">

                            <label  class="text-light" for="pincode">Password :</label>

                            <input style="border-radius:12px" type="password" name="password" id="pincode">

                        </div>

                        <div class="form-submit">

                            <input style="border-radius:12px;" type="submit" value="Reset All" class="submit" name="reset" id="reset" />

                            <input  style="background:orange;border-radius:12px" type="submit" value="login" class="submit" name="login" id="submit" />

                        </div>

                        <a href="register.php"> Don't have an account? please Sign Up</a>

                    </form>

                </div>

            </div>

        </div>

    </div>

    <!-- JS -->

    <script src="vendor/jquery/jquery.min.js"></script>

    <script src="js/main.js"></script>

    <script src="https://code.jquery.com/jquery-3.3.1.slim.min.js" integrity="sha384-q8i/X+965DzO0rT7abK41JStQIAqVgRVzpbzo5smXKp4YfRvH+8abtTE1Pi6jizo" crossorigin="anonymous"></script>

<script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.7/umd/popper.min.js" integrity="sha384-UO2eT0CpHqdSJQ6hJty5KVphtPhzWj9WO1clHTMGa3JDZwrnQq4sF86dIHNDz0W1" crossorigin="anonymous"></script>

<script src="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.min.js" integrity="sha384-JjSmVgyd0p3pXB1rRibZUAYoIIy6OrQ6VrjIEaFf/nJGzIxFDsf4x0xIM+B07jRM" crossorigin="anonymous"></script>

</body><!-- This templates was made by Colorlib (https://colorlib.com) -->

</html>

## II. BUDGET

A detailed budget for running the project to the end must be shown. A budget is the systematic enumeration (listing in detail) of the anticipated costs of the planned inputs and activities of the project. It involves describing explicitly each budget line to show the way it is related to the study activities.

**I. Preparation for the study**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Nº | **Item** | **No. of Persons** | **No. of Days** | **No. Person-days** | **Cost/Unit**  **(RWF)** | **Total**  **RWF** |
| 2 | Internet connection | 3 | 5 | 1 | 500 | 2500 |
| 3 | Communication | 3 | 10 | 2 | 100 | 2000 |
|  | **Sub-total 1** |  |  |  | 1300 | **4500** |

**II. The survey or experimentation**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Nº** | **Item** | **Persons/Materials** | **No. of days** | **Person-Days** | **Unit Cost (RWF)** | **Total (RWF)** |
| 1. | Transportation | 3 | 10 | 3 | 700 | 21000 |
|  | **Sub-total 2** |  |  |  |  | **21000** |

**III. Project supplies**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Nº** | **Item** | **Quantity** | **Unit Price RWF** | **Total RWF** |
| 1 | Note Books A4 | 1 Lame | 5000 | 5000 |
| 3 | Bic | 1 | 150 | 150 |
| 4 | Printing | 3 | 3500 | 10500 |
| **Total :** | | | | **15650** |

**Total: 41150 rwf**

## WORK PLAN

### Appendix 2 Project plan Schedule

|  |  |  |  |
| --- | --- | --- | --- |
| **Tasks** | **July** | **August** | **September** |
| **Proposal writing** |  |  |  |
| **Data Gathering** |  |  |  |
| **Data analysis** |  |  |  |
| **System design** |  |  |  |
| **System implementation** |  |  |  |