## AUTOMATED NATIOANAL IDENTIFICATION NUMBER REGISTRATION AND CARD GENERATION SYSTEM

 $\mathbf{BY}$ 

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BEING A PROJECT WORK SUMMITED TO THE DEPARTMENT OF COMPUTER SCIENCE, SCHOOL OF INFORMATION AND COMMUNICATION TECHNOLOGY, AUCHI POLYTECHNIC, AUCHI, EDO STATE.

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## **CERTIFICATION**

We, the undersigned certify that this project work was carried out by Kassim Abdulwahab with a Matriculation Number ICT/2251930035 of the department of computer science.

We also certify that the work is adequate in scope and quality in partial fulfillment of the requirements for the award of Higher National Diploma (HND) in computer science.

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Date

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**Date** 

## **DEDICATION**

This project work is dedicated to God Almighty for His grace, strength and good health through the period of my studies

## **ACKNOWLEDGEMENT**

The road to success they say is not an easy road but with God all things are possible. May His holy name be glorified.

My sincere appreciation goes to my project supervisor Mr. Akhetuamen Sylvester who is also the Head of Department in Computer Science Auchi Polytechnic (Computer) for his time he took in going through this project work and for his great work in the department of Computer Science.

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## TABLE OF CONTENT

Title page	i
Certification	ii
Dedication	iii
Acknowledgement	iv
Table of Contents	V
Abstract	viii
CHAPTER ONE: INTRODUCTION	
1.0 Background of Study	1
1.1 Statement of the Problem	3
1.2 Aim and Objectives of Study	4
1.3 Significance of the Study	4
1.4 Scope of the Study	4
1.5 Limitations of the Study	5
1.6 Definition of Terms	5
CHAPTER TWO: LITERATURE REVIEW	
2.0 History of Nigeria National Identity Card System	7
2.1 Objectives Programme of the National Identity Card	8
2.2 Economic Benefits of the National Identity Card to the	
Nation and Individuals	9
2.3 Procedure for Registration	10
2.3.1 Registration Officials	11
2.3.2 Cost of Registration for a National Identity Card	11
2.3.3 What does one Lose if he or she Fails to Obtain	
National Identity Card	11
2.4 The Concept of Database System	12
2.4.1 The Impact of Database System	13
2.5 Review of Related Works	14
2.5.1 The Angola National ID Card	14
2.5.2 Iraqi's National Identification Card System	17
CHAPTER THREE: SYSTEM ANALYSIS AND DESIGN	
3.0 System Analysis	23
3.0.1 Advantages of the Existing System	24
3.0.2 Disadvantages of the Existing System	24
3.1 Justification for the Proposed System	26
3.2 System Design	27

3.3 Input Design	28
3.4 Output Design	28
3.5 Database Design	28
CHAPTER FOUR: PROGRAM AND SYSTEM IMPLEMENTATION	
4.0 Introduction	29
4.1 System Requirement	29
4.1.1 Software Requirement	31
4.1.2 Hardware Requirement	31
4.2 System Testing	32
4.3. Program Interface	32
4.4 System Documentation	33
4.4.3 Documentation Tools	
CHADDED EINE, CHAMAADN CONCLUCION AND	
CHAPTER FIVE: SUMMARY, CONCLUSION AND	
RECOMMENDATIONS	
5.0 Summary	35
5.1 Conclusion	35
5.2 Recommendations	36
References	37

## **ABSTRACT**

There is the need for National ID cards in Nigeria which is use as means of identification in the country. A lot of issues arise due to lack of proper identification of an individual. There are many cases of impersonation, fraud, mistaken identity and a host of other problems. This has led the federal government of Nigeria to propose the issuing of identity cards to all citizens. However, the process is slow, time consuming less effective with the manual means of issuing the identity cards. Records are very difficult to preserve over a very long time. This research reviews the process of issuing National ID cards in Nigeria; its challenges, benefits and purposes. The review into the existing system has led to the design of a propose system for capturing and issuing of the cards to the citizens of the country. The proposed system was implemented using PHP and MySQL technologies.

Keyword: Identity Card, Impersonation, Fraud, Record

## **CHAPTER ONE**

## INTRODUCTION

## 2.0 BACKGROUND OF STUDY

Identity management refers broadly to the administration of individual identities within a system, such as a company, a network or even a country. An identify system is necessary for business and social affairs Abendroth, (2014). Having a reliable national identification system and citizens register is a good compliment for national planning, election, census board, law enforcement, banking, tax collection, pension board, education and in fact the judiciary Akinlabi, (2011).

7

Without functional identification systems, citizens of many developing countries miss out on the benefits of official identification.

For most countries, a government-issued national identity card is the main program that is being used for both identification verification and for at least one functional authentication purpose. In five of the countries reviewed in Anderson, (2016), including Burkina Faso, Cambodia, Nigeria, Ukraine, and Zambia, there is more than one prominent national identity program. In addition to their national identity card programs, Burkina Faso and Zambia have implemented voter's card programs even before Nigeria. Furthermore, among other nations, Estonia and Finland have been recognized for the success achieved in developing e-government tools. Estonian e-Residency system now. Creates a new digital nation for global citizens. Every person can provide digital signatures using their ID-card, Mobile-ID or Smart-ID, to safely identify themselves and use e-services. The system can be used for company registration, banking, payment services and document signing.

Technological innovations have opened up new possibilities for governments to develop comprehensive identity management systems that link peoples' identities through their entire life, from birth certificate, civil registration, driver's license, to marriage certificate, voter registration and national identity card. Anderson, (2016) at the same time, governments in developing countries are expected to carry out many of the same functions that richer countries are capable of performing; these

functions include "providing universal access to healthcare and education, implementing know your customer (KYC) rules for financial institutions, and administering a wide variety of transfer programs" Gelb & Clark (2013). However, the identity being managed by system constitutes a uniqueness of an Individual and has attracted security concerns. Much sensitive personal information is often misused; somehow. Duplicated or leaked and financial assets are hacked etc. These security events directly or indirectly cause the economic losses for the affected country. Thus, how to manage identity becomes an important problem for people in industry and academic settings (Ferreira & Alonso 2014).

Many efforts have been sought to find effective approaches in protecting national identity data such as centralized server which was adopted in developing National Identity management system in Nigeria. However, these approaches still center on centralized data management system associated with single point-of-failure problem which makes the system vulnerable to attack as it is possible for adversary to achieve its malicious goals of stealing/misusing/manipulating these data at the centralized server. (Osunade, Olanrewaju, & Phillips)

## 1.4 STATEMENT OF THE PROBLEM

National Identity Card processing and Administration system is not an easy task.

The use of manual methods of processing the National Identify card system has given rise to the following problems.

- i. The menace of forgery and Impersonation.
- ii. Duplication of multiple National Identity Card for one particular person.
- iii. Excess time taken in scanning through reports for a file with definite information because of the large volume of record to be scanned.
- iv. Editing the citizens' information as a result of marriage, change of name, or loss of the Identity card in other words known as update will also be a challenge.

## 1.5 AIM AND OBJECTIVES OF STUDY

The aim of this study is to analyze the activities of the National Identity Card Processing and administration system with a view of designing and implementing a more robust automated system that would mitigate the challenges they are facing. This could be achieved with the following objectives:

- i. Ensure accurate and timely update of the holder record.
- ii. Prevent multiple possession of the National Identity card.
- iii. Enable a proper record of each identity card issued.

iv. Finally, a proper reporting system for decision making.

## 1.6 SIGNIFICANCE OF THE STUDY

This project work will be helpful in a number of ways to eliminate forgery and duplication of National Identity Card in Nigeria.

## 1.4 SCOPE OF THE STUDY

This is project covers the activities involved in National Identity Card Processing and its administration system and also report generation on the National Identity Cardholders Information. The software developed will be implement using the WAMP technologies which stands for Windows, Apache, MySQL and PHP.

## 1.5 LIMITATIONS OF THE STUDY

Some limitations were encountered during this project design which includes the following:

- a) Time constraints: Due to time constraint, the web page developed covers only clearance from various departments by the graduating students.
- b) Financial constraints: It would cost a lot to develop a full web-based clearance system.

c) Financial constraints: It would cost a lot to develop a full web-based Clearance system.

## 1.6 DEFINITION OF TERMS

- a. **World Wide Web:** World Wide Web simply called www is the most important tool of the Internet. It was created in the late 1980s in Europe and was used limitedly in academic cycle.
- b. Databases: A systematically arranged collection of computer data, structured so that it can be automatically retrieved or manipulated. It is also called databank.
- c. **Computer**: An electronic machine capable of accepting data in the form of input processes it under a set of complete condition, stores information or request for references and generated result in the form of output.
- d. Application: As it concems this subject matter, it is one who applies to the
   Department of National Civil Registration for the Issuance of National
   Identity Card of the stipulated age.
- e. **Citizen**: Under the provision of the amended constitution decree No. 32 of 1974, citizen is any person who becomes citizen of any country either by birth, descendant, Registration or Nationalization.
- f. **Identity Card Processing**: The procedure involved in processing and identity card.

- g. **Identity Card Assessment:** The procedure or act of checking Identity card already in use or to be produced.
- h. **Immigration**: This is a process whereby people move from the country to another to settle.
- i. **Emigration**: This is a process whereby people come from one country to settle.

## **CHAPTER TWO**

## LITERATURE REVIEW

## 2.0 HISTORY OF NIGERIA NATIONAL IDENTITY CARD SYSTEM

A national identity card system was initially conceived in 1977 but the project did not see the light of the day. In 2003, a new scheme managed by the Directorate of National Civic Registration (DNCR) was initiated and about 54 million Nigerians were registered, however, the scheme failed to meet official expectations and was

also hampered by allegations of corruption and embezzlement of funds. The National Identity Management Commission came into effect in 2010 and an initial budget of about 30 billion naira was appropriated in the 2011 federal budget. The commission subsequently entered into an agreement with the National Database & Registration Authority of Pakistan to develop computerized national identity cards for Nigerians. The commission also partnered with two consortiums, the first led by Chams Nigeria and the second. OneSecureCard consortium composed of Interswitch, SecureID, and Iris Technologies to provide data capture services. Elusoji, (2014)

National Identity Management Commission is a statutory Nigerian organization that operates the country's national identity management systems. It was established by the NIMC Act No. 23 of 2007 and established to create, operate and manage Nigeria's national identity card database, integrate the existing identity database in government institutions, register individuals and legal residents, assign a unique national identification number and introduce general multi-purpose cards. Nwezeh, (2010).

The organization began enrollment exercise in September 2010 and started the issuance of a multipurpose card in 2013. The identity card issued in 2013 can be obtained by Nigerians aged sixteen or have lived in the country for two or more years at point of enrollment providing an identification document with a

photograph such as a driver's license or an international passport. The ID card contains a National Identity Number, two photographs of the card holder, and a chip containing the biometric information of the holder. The commission also collaborated with MasterCard add a prepaid element to the card and can be used as an ATM card in MasterCard certified ATMs. Wikipedia, (2020)

## 2.1 OBJECTIVES PROGRAMME OF THE NATIONAL IDENTITY CARD

- i. Registration of all citizens of Nigeria who at the commencement of this decree have attained on who thereafter attain the age of 18 years.
- ii. Issuing to every person registered an identity.
- iii. Collating all information returned by the Register in pursuance of their duties under his decree and reproducing such information that may be required from time to time under the provision of this decree.
- iv. Advising the minister on all matters relating to the ministers function Under the decree.

# 2.2 ECONOMIC BENEFITS OF THE NATIONAL IDENTITY CARD TO THE NATION AND INDIVIDUALS

Some of the benefits derivable from a successful implementation of the ID card programme by the Federal Government of Nigeria are:

i. Effective control of illegal immigrants

- ii. Availability of a comprehensive and reliable data for planning purpose.
- iii. Access to polls, thereby eliminating the need for expensive and fraud Prone compilation/ review of voter's register for every election.
- iv. Effective validation of other civil documents, like driving licenses,
  International passport etc.
- v. Assistance in apprehension and conviction of criminals.
- vi. Reliable personal identification for the purpose of commercial trcriminals with Banks, post office etc.

## QUALIFICATION FOR NATIONAL IDENTITY CARD

- a) You must be a Nigerian citizen.
- b) You must attain the age of 18 years or above.

## 2.3 PROCEDURE FOR REGISTRATION

The procedure for registration is as follows:

- 1. Eligible citizen presents himself or herself for registration at the registration center nearest to his or her place of residence.
- 2. The DNCR officials shall then ask such questions that assist them to determine the eligibility or otherwise of the person intending to register for the National Identity Card.

- 3. The officials will record vital information of the citizen such as: Name, Age, Sex, Address, Occupation, LGA, Ward, State etc.
- 4. An official of the DNCR will take the photo of the eligible citizen.
- 5. The fingerprint of the qualified shall be taken by the officials.

## 2.3.1 REGISTRATION OFFICIALS

During registration exercise, there are certain people who will normally officiate.

These persons are the DNCR officials. It is necessary for the citizenry to know and cooperate with these officials for a successful registration. These are:

- (I) Interviewers
- (II) Cameraman
- (III) Supervisor
- (IV) Height measurement clerks

## 2.3.2 COST OF REGISTRATION FOR A NATIONAL IDENTITY CARD

Presently, the National Identity Card will be issued to all eligible Nigerians free of charge. This is, nobody will be asked to pay a kobo for the acquisition of the national Identity Card. By so doing, all eligible Nigerians are requested to come out in large number and register for the National Identity Card at the nearest registration center.

## 2.3.3 WHAT DOES ONE LOSE IF HE OR SHE FAILS TO OBTAIN NATIONAL IDENTITY CARD

The benefits of the National ID card are numerous and anybody without such a card may likely be denied of such for instance, in the near future, possession of a National Identity Card is likely to be attached to healthcare delivery, Education, library facilities, admission to primary schools, higher institutions, passport, driving licenses and commercial transactions in such place like Bank and post offices.

## OFFENCES RELATING TO REGISTRATION

It is a serious offence for anybody to engage himself or herself in multiple registrations as anybody caught will be dealt with seriously. It is also worth mentioning at this juncture that multiple registrations is not possible as the type of machine acquired by the Department of National Civil Registration For the exercise will render such a malpractice useless. The machine is capable of

detecting anybody that registers more than once, even if it is done at different center/lowns. Anybody so detected would be handed over to the law. enforcement agents for appropriate actions.

## 2.4 THE CONCEPT OF DATABASE SYSTEM

A simple form of database is the list with a specific tabular structure for data. It is a form of data that contains categories of information in the form of fields. (Kitso, 2016). In the databases, the columns represent the field and every field has a separate column and is given a unique name called the field name. Again, the various sets of data for these fields are called the records. It contains the person's name, address and telephone numbers.

However, the use of MS Access to the development of National ID is the complement of the system to be used beyond database management. In spite of the field names, passports and National ID number of the bearer. They are all data collection or information required for simple identification. It has no provision for duplication, and it is the best option presently for such a scheme.

## 2.4.1 THE IMPACT OF DATABASE SYSTEM

The impact of database system in relative to conventional files is outline as follows:

- a. The information supply is more valuable because it is based on a comprehensive collection of data instead of files that contain the needec for one application.
- b. Through the routine reports, it is possible to obtain adhoc reports to meet particular requirement.
- c. There is an obvious economic advantage in not duplicating the data. Besides, errors due to discrepancies between two files are eliminated.
- d. The amount of input preparation needed minimized by the single input principles.
- e. A great deal of programming time is saved because of the DBMS handling the construction and the processing of the data.
- f. The use of integrated system is greatly facilitated. French, (1996)

## 2.5 REVIEW OF RELATED WORKS

Several countries are using national identity card system for it various uses. This project takes a brief look at two case studies; namely the Angola National Id Card and the Iraqi National Card system.

## 2.5.1 THE ANGOLA NATIONAL ID CARD

In the mid-2000s, Angola began its search for a replacement for its paper based citizen ID document. The use of false documents and ID theft exposed the nation

to major security concerns at a time when its new democratic government was being established and global insecurity was on the rise. The government's vision was to provide one legal identity per person as a cornerstone of citizenship.

Adding to the challenge of ensuring one new National ID card per person was the sheer geography of the nation. To meet the needs of Angola's widely dispersed and predominantly rural population, the government needed a solution that would allow for distributed data capture and issuance.

## A WORLD-CLASS SOLUTION

The Angola National ID Card Program incorporates the latest innovations in secure issuance, card technology and citizen-centric services – services that take into account people's needs and expectation for convenience, flexibility and affordability when participating in government programs.

## THE CARD:

The new National ID system had to meet multiple security criteria, including:

- a. Matching individuals to their biometrics
- b. Safeguarding personal data

c. Storing substantial amounts of information directly on the card (fingerprint biometrics, images, birth certificates, demographic data)

Angola's dispersed geography required the ability to instantly read the card's data in areas where there was no access to the communications network, as well as modular and mobile data collection and card personalization systems. Delivering on these goals required the deployment of the most counterfeit resistant document possible, with secure portable data storage, and strong visual security attributes. HID Global's Laser Card® optical security media technology was chosen for its proven security and visual authentication features. Further, LaserCard optical security media's long-life span and ability to scale with the needs of the nation enables the addition of functions or applications like providing proof of the right to vote, and access to multiple government services. Angolan cardholders now carry IDs as advanced as those found anywhere else in the world. LaserCardx optical security media allows the cards to not only store personal and biometric identification, but prevents counterfeiting and obstructs tampering, while facilitating quick and accurate authentication of the card. The digital security of optical media-based credentials has never been compromised. LaserCard optical security media encoders allow individuals to have all ten fingerprints encoded, along with photos and personal information,

for confident authentication in the field. HID Global supplies both the cards and hundreds of secure ID card printer/encoder systems.

## Diagram:

## **Distributed I**Issuance

The majority of Angolans live in remote, rural locations. In the first phase of the program, the new secure issuance infrastructure deployed to serve these populations included 27 centralized "fixed" centers (9 at Luanda, 2 at Benguela, and one for every other Province) for National ID Card enrollment. Personalization and issuance as well as a creative cadre of mobile units (22 trucks) to enroll and issue ID cards to citizens in remote parts of the country. Today there are more than 243 fixed and mobile of issuance centers. DGM, in partnership with HID Global and the Angolan Government's Ministry of Justice, has successfully implemented "Over the Counter" issuance processes in which citizens are securely issued their IDs in less than an hour.

Originally launched without a network communications infrastructure in place, the program has been deployed in stages – evolving along the way.DGM had to construct a country-wide information technology and network communications infrastructure at the same time that initial "fixed" centers and mobile units began to be implemented. Today the communications infrastructure is able issue new ID

cards in an hour from biometric data collection. To issuance the citizen.(Retrieved from: http://www.hidglobal.com/government/citizen-id)

## 2.5.2 IRAQI'S NATIONAL IDENTIFICATION CARD SYSTEM

It is known that Iraq is one of the countries with little Information and Communication Technology (ICT) utilization. The current barrier to the successful implementation of e-government in Iraq is due to the poor citizen identification system. This is owing to that Iraq does not have proper Identification, documentation of its citizen. In order to enable the sharing and integration of individual records at various offices, a means of individual record identification across the offices is required. For achieving this, the country needs to use National Identification Card System, which would be primarily accessible to government offices. Pallister, (2015).

In general terms, a national identification (ID) system is a mechanism used by governments to assist public agencies in identifying and verifying the identities of citizens who are availing of government services or making public transactions. Usually, the citizen is assigned an identification number at birth or when he or she reaches legalage. Depending on the purpose for which the ID system was built, some countries include not only their citizens, but also foreign nationals who have become permanent residents. Although some efforts are made to introduce e-

governance in Iraq, but no significant effort is made on the Citizen Identification System, which can greatly assist c-governance by enabling the sharing of individual citizen information to facilitate the service rendering process of government offices. A Digital National Identification Card application has a system that helps govt. For making a strategic decision for an individual and for the nations. By using this system, Iraqi govt. Will know about the total no of citizens' database which is most important for a govt. To provide a proper service for an individual. Strategic decisions on job creation, subsidies in important sectors, prove the internal security, proper implementation of national income with a proper expenditure plan are the main objectives for the Iraq government. The digital national identification system is the only solution that can solve most of the problem sin Iraq. Benefit from Citizen Identification System; assess its consequences, particularly for individual privacy. Al-Khouri, (2012) and Watson, (2010)

## Design and Features of Iraqi National Identity Card

The National Identity Card is made as a plastic card and it is the exact size of a credit card. It has embedded with a microchip which has a way to link with the main databank where the bearer's information stored during the registration. In many countries using the cards containing with some information; those are average as: an identification number, Photo, name, date of birth, present and

permanent address, parents' details, siblings details, issuing agency, date of issue, place of birth, educational record, signature, citizenship. Residency, marital status, professions, physical characteristics (blood group height, weight, hair color or eye color), financial details (income, loan and investment), occupations, travel history, crime record, health record and welfare. There is a basic info ID structure given in the following figure 1. Watson, (2010).

The details of physical or bodily information with fingerprint are usually known as biometric information. In recent days, it is very useful information. Which is, commonly, vary with one another. The government can find the difference by extracting data and later using different code from the software. The biometric system will perform according to the code that set up to determine in which category individual are placed related to the bodily and behavioral characteristics. Therefore, everyone must be aware of their activities because that are under surveillance. It is very common in issuing NIC with biometric information where information's are: data extracted from the body, an Iris Scan, Retinal Scan. Digital Image, or Fingerprints. This means that even though if a card has stolen and a new fingerprint data inserted, but anyone with a government scanning system can read that it as fake. Even though there are 100 countries using the NIC or national identity cards or equivalent system to identify their citizens, but this study is

concerning same factors but will be beyond the capacity of usual ID, due to the different application to solve Iraq's current situation Lyon, (2017).

The study is given a name of Iraqi National Identification Card is INIC. To avoid narrow views the study will use some steps. At the first step, the basic structure has taken from the Malaysian Identification Card (MyKad) structure and then the second step will discuss the INIC, which is proposed for Iraq. The structure, which is, consists with five basic information databases, that are linked by microchip embedded with a plastic identity card. And there are some biometric information included such as; fingerprints and signature. However, using biometric information, it will help to identify of a person accurately. Biometric info carries basic different that always vary person to person. The identification number can be same with others, but biometric info is always compact with bodily and physical details will never be the same with second human being. The complete views of the INIC database system with both sections (individual security and national security) are disclosed in the following structure. Lee and Jain. (2019).

Privacy is a key concern as all of an individual's personal (biometric) information will be stored in one database where the possibility of corruption and exploitation of data is far greater than when having the information disbursed. Risks that arise from this centralization include possible errors in the collection of information, recording of inaccurate data, corruption of data from anonymous sources, and

unauthorized access to or disclosure of personal information. The Citizen Card System authority has to strike a balance between "privacy and purpose" on the biometric data collected from the citizens. The biometric database of people should not be misused in any way by the personnel of Citizen Card System authority or others. Suppose the biometric data (digital fingerprint) of a person is compromised, then the consequences of such incidents are fatal because the digital fingerprint is basically used for the authentication process. Hence, if the critical biometric data of a citizen are compromised, all future authentication process for such person could prove wrong. So, Citizen Card System must be secure from malicious elements – both internal and external sources. "http://en.wikipedia.org/wiki/ m

One concern that any government would have about identity authentication and national ID cards is cost: how much and who will pay? Many observers believe that identity management programs will always increase costs as new technologies and functions are added, but this is not always the case in fact. In the case of Iraqi's national ID card program, cost has not been a major obstacle. The new card replaced several existing identification document, which has actually reduced production and management costs in the long run. The cost of procurement of the cards and management of the whole process has been taken up by the separate ministries. Byrne, (2017)

In the United States alone, the cost estimate of their ID system is about \$17.4 billion within its ten-year phased implementation. And 8.2 British, pounds or 16.6 US dollars) for the cards, which covers the costs of the program In Philippine It is estimated that implementing an ID system in would cost P1.6 billion, according to Ultimately, the cost of an ID system depends on the level of technology, the coverage and system specifications Dawes, (2018)

## **CHAPTER THREE**

## SYSTEM ANALYSIS AND DESIGN

## 3.0 SYSTEM ANALYSIS

The production of National Identity Card in Nigeria goes through a number of processes. The first phase involves the data capturing where citizens Nigeria would go to a designated place to be captured by the system. The data is submitted online to a central database server.

The second phase of the process involves the printing of the ID cards central place. The cards are sorted according to the region where they were initially registered from. This procedure usually takes months to complete due to the use of manual means of preparation.

The final and last phase is the distribution. Cards that are printed after sorting based on regions are distributed to the region stated in the submitted data. Announcements are made for citizens to claim their cards. The owners of such cards would go to the center they did the registration to claim their cards.

## 3.0.1 ADVANTAGES OF THE EXISTING SYSTEM

The existing system has a number of advantages which made it to be in use today these advantages cards

- (i) It requires less investment on technological equipment
- (ii) Forms that are printed can be filled by the citizens at their convenience before submitting them to the center.

(iii) It requires face to face interaction between the capturing staff and the Individual citizens in each region.

## 3.0.2 DISADVANTAGES OF THE EXISTING SYSTEM

The system is not fully computerized since there are still some manual means of handling some processes the following problems are been encountered which includes:

- i. Delay in processing registration forms.
- ii. Loss of vital documents as the filing system is manual
- iii. Damage of documents due to fire incident.
- iv. Illegal removal of forms by fraudulent staff leading to insecurity.
- v. Card distribution can be difficult for some citizens has relocated from the region they did their registration.

## 3.1 JUSTIFICATION FOR THE PROPOSED SYSTEM

New system, which is fully computerized, has so many benefits that will negate the problem experience in the current system. The need for this new system cannot be over emphasized as it is aimed at achieving;

- 1) Neatness/Reduced Use of Paper: Computerization gives room for production of a very neat job. Besides, since the vast volume of paper, which is used in keeping/storing information, will no longer be needed, it will help in keeping a very neat office.
- 2) Reduction of Cost: The computerized system will keep in reducing cost of operation due to constant production of forms and registers for keeping records as less form will be used.
- 3) Use of Less Space for Record Storage: There will be elimination of much space used in storing records by introducing a computer storage media (disks) which can keep vast volume of information in a less space.
- 4) Speed Optimization: This will eliminate the problems of time wasting in registering records, checking from one line to the next as well as preparing reports which is faster than using manual process to do it.
- 5) Quick Retrieval of Information: There will be fast retrieval of information, which has advantage over the manual system that enables the user to retrieve information faster most especially as it concerns the vehicle owner by making use of his/her vehicle registration number to call up their information than in manual system where you search for information record line after the other.
- 6) Less tedious

- 7) Reliability
- 8) Effectiveness and efficiency by reducing work intensity
- 9) Ease of update and maintenance of operation
- 10) Consistency of data

## 3.2 SYSTEM DESIGN

This system is designed to be operated by two users namely the Administrator and the Standard users. Each of this user's module is protected by a password system which could be changed at any time the user thinks his/her Password has he compromised. The modules are explained below:

## **ADMIN MODULE:**

- a. The first major role of the admin is to register users for the system. The admin can also create new admins who can also have similar capability.
- b. The admin module allow for announcement or message to be passed across all users of the system. This can several as a notice or information for the smooth operation of the registration process.
- c. The admin module can be used to update other users or even delete a particular user if need be.

## STANDARD USER

- The primary function of the standard user module is to capture the data of each citizen whose ID Card is to be printed.
- ii. This module also allows the updating of user's password as the need Arises.
- iii. This module can be used for the immediate printing of the National Identity Card.
- iv. It can be used to update the citizens data.

## 3.3 INPUT DESIGN

Following are the data captured by the system.

- 1. Full names
- 2. Date of Birth
- 3. Address
- 4. Blood group
- 5. Town
- 6. Local Government
- 7. State
- 8. Nationality
- 9. Occupation
- 10.Gender

11.Height

12.Phone Number

13.Images

## 3.4 OUTPUT DESIGN

The system has various outputs. The major output generated by the system is the individual ID cards. The system also gives room for viewing of aggregate data like number of Nigerians registered, Number of females registered, number of employed citizens etc.

## 3.5 DATABASE DESIGN

The database is made up of three relational tables which are related by means of the primary key. The tables are illustrated below:

Announcement Table: It is used to store the messages admin passes to
 All the field users who registers citizens from various location.

## **CHAPTER FOUR**

## PROGRAM AND SYSTEM IMPLEMENTATION

## 4.0 INTRODUCTION

The need for computerized information management system is of great importance, due to some of the problem that were encountered with the old system due to that, in the course of my Project Research, I tried to develop a system that will counteract some of these problems, the system was using PHP and MySQL as database. This option is the best since the application would have to be run on the web since it has to be accessed from multiple locations around the country. The new system was designed considering the evaluation of already existing process of information processing, the system was not meant to add or remove from the already existing process, but it was meant to improve the way that these information are been processed JavaScript is another lightweight programming language use in the course of this project as it is best used for data validation. Ajax technologies etc.

## 4.1 SYSTEM REQUIREMENT

System requirement are those things, needed for the efficient working of the new system. These include:

Software Requirement

Hard Requirement

## 4.1.1 SOFTWARE REQUIREMENT

Software refers to a set of program that is executable by the computer to perform a

task. Software requirement are those software that are required by the new system

for its effective function. Windows XP operating system is most preferable for the

new system to function. Web browser like Mozilla Firefox. Internet Explorer,

Google Chrome etc.

4.1.2 HARD WARE REQUIREMENT

Hardware refers to the physical component of the computer. This houses the

software, the combinations of hardware and software is vital for the effective

running of the new system that was designed for transcript management. The

hardware requirements that are needed for the effective running of the new system

are stipulated below as follows:

Monitor (VGA,SVGA or LCD)

Keyboard

Pentium IV

Server

LAN Network

4.2 SYSTEM TESTING

37

Testing shows the presence of bug (error) within a program debugging is used to identify the case of these bugs. After correcting the bugs, we then use test data to check if the program was working according to specification. The programmer in accordance with the design objective supplied the test data used for the programs, Testing was first performed individually by testing all the modules independently using the appropriate test data. Some of the test data includes the creation of new truck, registering maintenance details into the system etc. After all the modules were tested and found to be working properly, the entire program was now lested as a whole (one unit). Also test data was supplied and database was updated, so that reports could be printed. Hence, 1 can conclusively say that the program was properly tested and is reliable

In summary, this prototype software has passed through:

- 1. Module Testing: Testing of individual program module
- 2. Integration Testing: Groups of program (modules) tested together to determine if they interface properly. This was done incrementally as the programs were being developed until the entire program system was tested.
- 3. System Testing: The testing of the complete set of application software. In a nutshell, this software was developed and tested on a Desktop Computer with an Intel Duo Core processor, running at 2.8MHz clock speed. It has a color monitor and 512MB of Random Access Memory (RAM).

## 4.3. PROGRAM INTERFACE

Homepage: The homepage is the first page to be accessed from the system. It stands as a boundary for unauthorized users who has no login credentials into the system.

## 4.4 SYSTEM DOCUMENTATION

Software documentation and maintenance are essential parts system System production and use. There is little point in producing a software system if it cannot be understood and used as expected by its implementers and its modifications to those systems are difficult or impossible to make.

The documentation may describe how to use the program, while it was written and the techniques used in its construction and should clarify any obscurities in the program.

**Software documentation:** This documentation may be classed as either user documentation or system documentation. The documentation provided along With the system satisfies a number of requirements it must describe

- 1. How to use the system
- 2. How to install and operate the system
- 3. The overall system requirement and design

4. The system implementation and test procedures as that if may be maintained.

## 4.4.3 DOCUMENTATION TOOLS

This discusses software tools that can be used to develop and maintain project documentation on a computer system. There are a number of advantages that accrue from developing documentation in this way rather than manually.

## These are:

- 1. The documentation is always on land: The user need not search for manual if he has access to the computer
- 2. Documents are easy to modify and maintain: This has the consequence that the project documentation is more likely to be kept up-to-date.
- 3. Documentation may be formatted: The documentation text can be automatically formatted and neatly laid out in some circumstances; printing costs can be reduced by using computer driven photo type settler
- 4. Document may be analyzed: The documentation text can be automatically analyzed in various ways to produce different types of index, and to check for spelling and typing error.
- 5. Document may be shared: Several individuals may word on the Production of a document at the same time.

- 6. Documentation management is simplified
- 7. Automatic information retrieval is feasible: Information retrieval system may operate on document retrieving all documents that contain particular keywords.

## **CHAPTER FIVE**

## SUMMARY, RECOMMENDATION AND CONCLUSION

## 6.0 SUMMARY

In the course of this project, the existing process for the issuing of the National Identity Card was investigated in order to see how full computerization would be beneficial to the system. Two countries that have employed the technological solution were reviewed and analyzed. A design was proposed and then implemented using the best web technologies for a robust solution. The use of computer aided information management makes it more convenient, efficient and produces accurate information for the governmental unit to use for other services. This is opposed to the manual method, which is stressful, time consuming prone to mistakes due to human nature and inconvenient. This will not only facilitate information processing, but will go a long way in improving the overall general service of the country.

## **5.1 CONCLUSION**

The national identification program in Nigeria will have astounding success if the design proposed in this paper is adopted. The architecture takes care of data acquisition, data updating and distribution of identification cards to citizens of the country. The network architecture is the basic infrastructure needed for the success of the national identification program. The system developed is sustainable and applicable to the Nigerian environment.

## 5.2 RECOMMENDATIONS

Having seen the usefulness of a computer based information management System in the capturing, production and issuing of the National Identity Card, recommend the following to the government as stipulated below:

- a. They should computerize all the department of the school, to ensure easy flow of information in the schools.
- b. They should ensure that all the staff of the user department are adequately trained to ensure smooth implementation of the new system.
- c. Even after computerization of the whole department, they ensure that all system are linked to one central local network, protected with high security measures
- d. Advocate and educate stake holders and service providers to use transcript's information for planning.
- e. Formulation and development of policy guidelines on the use of Information, data collection.

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