DESIGN AND IMPLEMENTATION OF ONLINE

CLEARANC SYSTEM

A CASE STUDY OF AUCHI POLYTECHNIC

BY

AIFUWA OSAZEE CLEMENT

ICT/6251840121

BEING A PROJECT WORK SUMMITTED TO THE DEPARTMENT

OF COMPUTER SCIENCE, SCHOOL OF INFORMATION

AND COMMUNICATION TECHNOLOGY, AUCHI POLYTECHNIC, AUCHI, EDO STATE.

IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF HIGHER NATIONAL DIPLOMA (HND) IN COMPUTER SCIENCE

JANUARY, 2022

CERTIFICATION

We, the undersigned certify that this project work was carried out by **Aifuwa Osazee Clement** with a Matriculation Number **ICT/6251840121** 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.

Mrs. Campbell Paulina **Date**
(Project Supervisor)

Mr. Akhetuamen S. O **Date**
(Head of Department Computer Science)

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 **Mrs. Campbell Paulina** and Mr. **Mr. Akhetuamen S. O**, the Head of Department Computer Science, and all lecturers of computer science department; I say a very big thank you to all.

I sincerely appreciate my lovely parent Mr. and Mrs. Aifuwa for their love, care and financial support.

And I also want to thank everybody who directly or indirectly support me through the program.

TABLE OF CONTENT

Title page

i

Certification

ii

Dedication

iii

Acknowledgement

iv

Table of Contents

v

Abstract

viii

CHAPTER ONE: Introduction

1.1 Background to the Study

1

1.2 Statement of the problem

2

1.3 Aim of the study

3

1.4 Objectives of the Study

3

1.5 Significance of the study

3

1.6 Scope of the Study

4

1.7 Limitation of the study

4

1.8 Definition of terms

4

CHAPTER TWO: Literature Review

2.1 Role of Information Technology in the academic system

7

2.2 Data and information

9

2.3 Computer-Based Information Systems

11

2.4 Databases

12

CHAPTER THREE: System Analysis and Design

3.1 Analysis of existing system
17

3.2 Method of Data Collection
18

3.2.1 Study of Manuals
19

3.2.2 Evaluation of Forms
19

3.3.1 Advantages of the Existing System
19

3.3.2 Disadvantages of the Existing System
19

3.4 Justification for the New System
20

CH**APTER FOUR: Program implementation**

4.1 Design Standards
21

4.2 Output Specification and Design
21

4.3 Input Specification and Design
22

4.4 File Design
22

4.5 System Flow Chart 22

4.6 System Specification
23

4.7.1 Hardware Specification
23

4.7.2 Software Specification
23

4.7.3 Operational Requirement
24

4.7.4 Personnel Requirement
24

CHAPTER FIVE: Summary, Conclusion and Recommendation

5.1 Summary
25

5.2 Conclusion
25

5.3 Recommendations

26

References

27

Appendix I

37

Appendix II

37

ABSTRACT

This project is aimed at computerizing the clearance system of Auchi Polytechnic Auchi. With the growth of information technology we found out that there is need to computerize the manual procedure of clearance in Auchi Polytechnic Auchi after graduation. Online clearance system is a research work that will help build an effective information management for schools. The designed software will serve as a more reliable and effective means of undertaking students clearance, remove all forms of delay and stress that usually occur in the manual process as well as enable you understand the procedures involved and how to do your clearance online. This project work made use of data collected from the Polytechnic, materials and journals from various authors and software was developed to effectively achieve the aims of this project. In this project, the implementation of the computer-based system was carried out using PHP, CSS and MySql as the database. In conclusion, the work met all the objectives intended. It is, however, recommended for use by all tertiary institutions.

CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Clearance is a status granted individuals, typically members of the university graduates, and employees of governments and their contractors, allowing them access to classified information, i.e. state secrets. The term "clearance" is also sometimes used in private organizations that have a formal process to vet employees for access to sensitive information. A clearance by itself is normally not sufficient to gain access; the organization must determine that the cleared individual has a "need to know" the information. No one is supposed to be granted access to classified information solely because of rank or position, but once a clearance is obtained, access to certain information or gain of freedom will be granted. Clifton (2014)

As many universities and polytechnics have choosing to pursue the dynamic educational options available online. Anigbogu (2015), in his book titled "Systematic Planning for Educational Change" said the advantages of e-learning are many which include time saving, less stress of traveling to get book materials and even at a low cost. As people of all ages and backgrounds become increasingly reliant on the internet for information, online learning becomes more convenient and efficient here in the need for an online clearance system is necessary. The skills needed to access and comprehend information online are becoming commonplace, and the flexibility of wireless computing means that any coffee shop, airport or bedroom can become a classroom. Online courses, registrations, clearance have few, if any scheduling restrictions, well-integrated learning resources and competitive degree options, with an online clearance system.

The changing online college landscape now includes online clearance system, traditional undergraduate and general studies programs. However, career learning is still the most popular online training option.

No one is supposed to be granted access to classified information solely because of rank of position, but once a clearance is obtained access to certain information or gain of freedom will be granted.

The advantage of e-learning are many, as people of all ages and backgrounds become increasingly reliant on the internet for information, online learning become more convenient and efficient here, the need for an online clearance system. The skills needed to access and comprehend information online are becoming common place, and the flexibility of wireless computing means that any coffee shop, airport or bedroom can become a classroom online courses, registration, clearance have few, if any scheduling restrictions, well-integrated learning resources and competitive degree option, with an online clearance system. The changing online college landscape now includes online clearance system, traditional undergraduate and general studies programs. However career learning is still the most popular online training option.

1.2 Statement of Problem

The manual method of clearing students in Auchi Polytechnic usually takes a lot of time and a lot of processes and delays in clearing the students after their final year examination. Hence it became imperative for an online clearance system to eliminate the shortcomings of the manual system in place.

1.3 Aim of the Study

This project work is to develop computer application for online clearance system for graduated students.

1.4 Objectives of the Study

Objectives of the proposed system include

i. It will save list of graduated students.

ii. Graduated student can proceed with their clearance online.

iii. Graduated student can get clearance done on time.

1.5 Significance of the Study

The project work will help in a good number of ways to ease the queuing system in the Auchi Polytecnic, Auchi as the online clearance system will help students to achieve whatever they want to achieve without coming to the various offices for clearance. Clear advantages of Internet information processing over those of traditional manual system are higher yields. Online clearance system allows the users to fill and submit their clearance form, and obtain their admission letter.

1.6 Scope of the Study

This research work is limited to clearance system for graduated students in Auchi Polytechnic, Auchi. The software developed will be carried out using HTML, CSS and PHP using Mysql as database.

1.7 **Limitation of the Study**

- **Time Constraints:** Due to time constrain the web-page covers only clearance for various departments by the graduating student.
- **Financial Constraints:** Due financial constraints people cannot afford this kind of process online especially towards the cost of

accessing the internet. Therefore, it would cost a lot to develop a full web-based clearance system.

Some documents were considered confidential and were not made available.

1.8 Definition of Terms

Computer Network: Computer Network is a system that connects two or more computers together using a communication link.

World Wide Web: World Wide Web simply called www is the most important tool of the Internet. It was created in the late 2000s in Europe and was used limitedly in academic cycle.

Clearance: Official certification of blamelessness, trustworthiness, or suitability for graduation and issue of certificates in degree course.

Databases: A systematically arranged collection of computer data, structured so that it can be automatically retrieved or manipulated. It is also called databank.

File Transfer: Any kind of computer file can be sent via the Internet from one Internet user to another. Table of accounts on spreadsheets, design by a graphic artists, music sound files etc, can all be exchanged in this way.

Web Site: A website is a collection of many interconnected web pages organized by a specific college, organization company etc, containing web pages (good and commodities) on the Internet.

Online: Connected via a computer attached to or available via a central computer network.

Offline: Disconnected from computer network; describes a computer terminal or peripheral device disconnected from a computer network. System: Set of computer components that is, an assembling of hardware, software and peripherals functioning together.

ISP this stands for internet services provider. it provide services for the internet user to access the internet after the user must have subscribe.

CHAPTER TWO

LITERATURE REVIEW

2.1 Role of Information Technology in the Academic System

The introduction of computer into information technology has massively improved the information need of organization; the success of this machine is dependent on the knowledge base. Therefore, one can be prompted to ask aloud “what is a computer” Funk (2016) defined a computer as an electronic device that can perform automatically at a high speed of a sequence of logical operations according to instructions giving to it inform of pre-arranged program.

Anigbogu (2000) define a computer as an electronic device capable of accepting data and instruction; process the data base on the instruction to generate result or output in such a manner that is yet to be equaled by any other known machine to mankind.

Chimezie (1990) define computer by saying that computers are looked upon as obedient servants who are ever ready to free man from tedious procedures and produce result as compared with human computing time.

Obilikwu (2010) define a computer as a machine that is capable of accepting input data, store and process the data base on the instructions giving by the computer users and in this way produce expected result, generally called output.

World net describes an information system (I.S) as systems consisting of all communication channels used within an organization and include software and hardware. It may also be define as a system that collect and process data (information) and provide it to manager of all levels that use it for decision making, planning, program implementation and control.

The aim of information system to admission, registration, result processing and clearance in universities using computer software based online clearance system is to improve the quality and accuracy of information provided to all involved as well as assisting universities in compiling and reporting information, making work lesser for the management.

Information technology has been an integral part of academic system since almost four decades. According to Hewlet (2016) the world is entering an era in which technology will literally transform every aspect of business, every aspect of life and every aspect of society.

Since the arrival of internet technology, school system has taken a new shape style with a blend of convenience and satisfaction. Kenneth (2016) says that computer base education includes both computer-assisted instruction programs that interact with students in a dialogue and a broader array of educational computer applications such as simulations or instructions in computer programming. Learning from a student bedroom, office or anywhere in the world has made its way into university system with the advent of internet technology. Information technology has always helped the university system to educate student in better way. To explain few examples: Student online clearance is a method where the student obtains his/her clearance letter without carrying files around. This is safe, fast and has no hazels. Filling out the documents and comparing options and writing for approval is a time consuming process. Through the internet, this process is made much easier and sometimes the approval is made within minutes. This explains an efficient way of obtaining clearance and saves time and money from students.

2.3 Data and Information

The concept of data and information are very important in understanding issues that go with development and implementation of a computer software based automated clearance system. The term “data” and “information” are used interchangeably every day conversation as meaning the same thing. Too many manager and information specialist. However, these terms have distinct meaning. According to O’Leary (2017) data simply consist of raw unprocessed facts while information is a data that have been processed by the computer. Hordeski (1986) gives the following definition of data; A graphic or textual representation of facts concepts, numbers, letters, symbols or instructions suitable for communication, interpretation or processing. Data is the basic element of information that is use to described objects, ideas, conditions or situations.

Lucy (2017) defines data and information as Data is fact events, transactions and so on, which have been recorded. They are the raw materials from which information is produced. Information is data that has been produced in such a way as to be useful to the recipient. Data are fact obtained by observation, counting, measuring, weighing etc, which are often records of day-to-day transactions of the organization. For example, payment, the number of a student living in a particular hostel and so on. Enwerem (1992) argue that concept of information in an organization sense is more complex and difficult than the frequent use of this common word would suggest. Oketunji (2002) emphasized that information is data that have been processed, transmitted by the recipient, interpreted and understood by the recipient. Here it should be noted that the user, not just the sender is involved in the transformation of data into information. There is a process of though and understanding involved and if follows that a given message can have different meaning to different people. Based on this, one can conclude that data which has been analyzed summarized or processed in some other fashion to produce a message or report which is conveniently deemed “management information” only becomes information if it is understood by the recipient. Therefore it is the user who determine whether a report contains information or just processed data.

2.4 Technology Enhance Computer Software Based Automated Clearance System

According to Jeremy (2013), a comparison of traditional and hybrid automated system in communication technology:

Automated system has become a central element of the discourse on higher education (cox 2005). There seems to be an overall derive towards online system given the mountain need for flexibility in scheduling and the daily emergency of communication technology and capabilities (Hill stock 2005).

Automated system is presented as a means of conveying instruction to an extensive learning community any place at any time Cox (2005). Indicate that adequate designate online learning as the driving force and model for transformation in teaching, learning and formal schooling online course has the potential to provide learner individualized attention by the instructor, otherwise impossible in a large classroom environment (environmental education and training partnership 2006).

With the continued development of online system applications, many colleges and universities has begun to offer online courses as an alternative to traditional face-to-face instructions. 67% of colleges and universities agreed that online education is the most logical long term strategies for their institutions (Hill stock 2005). However, there are considerable hesitation rising predominantly related quality and student respectively to online system, (Yong and Conellus 2004). Just as their advantages there are also disadvantages to the online system instruction delivery method. There is evidence through previous research that student fill isolated or disconnected when not engaged in traditional face-to-face instruction (Guhu 2001, Graham 2001), while other report indicate large success (Hoff man 2002, Kaczynski and Kelly 2004: mayer 2002). There remains a lack of clarity whether online courses are as affective as traditional courses (Peirier and Feldman 2004).

While there has been vast amount of research conducted on the advantages and the disadvantages of online system institution, little is known on how assessment is used in online classroom to monitor performance and progress (Liang, 2014) is an assistant professor in the department of mathematics science and technology education at North Carolina state university Ralugh. Journal of technology education volume 19 No.2 spring 2008 (Creasy 2004). Hew, Liu, Martinez. Bonk, and Lee

(2004) describe the evaluation of current online education system at three levels; the macro level, the meso level and micro level. The macro level is an online evaluation that access an entire online program, the meso level evaluation access individual online courses, and the micro level access the learning of the online student. Clearance system present educational experience very different from standard face-to-face environment (Hew, Liu, Martinez, Bonk and Lee 2004). When conducting a micro level courses evaluation, interest commonly lies in learner perception of the course experience pertaining to the level of comfort, ability to communicate with class mate and the instructor, as well as comparison to traditional face-to-face lecture. Many times the only means of evaluating learner perception is in the form of a questionnaire or survey. Although perception of online system can be extremely useful information, it is usually not sufficient to conclude the evaluation without expanding to learners understanding.

2.5 COMPUTER-BASED ONLINE INFORMATION SYSTEM

An information specialist Lucy (2017) define computer based management information system as: the combination of human and computer based resource that result in the collection, storage, retrieval, communication and use of data for the purpose of efficient management of operations and for business planning.

- Computer based information system is a feature of all large organization nowadays. The literature identifies four kinds of computer based information: Transaction processing system (TPS), management information system (MIS), decision support system (DSS) and executive support system (ESS). Some system record routine activities: Employees hired, material purchased or produced and the like. Such recorded events are called transactions. Other system uses this recorded event to help managerial planning and control. The systems form a pyramid each primarily supporting one another level of management.
- Transaction processing system (TPS): these system record day-to-day transactions such as customer order, bills, inventory levels and

production output. The TPS helps supervisors by generating data base that act as foundation for other information system.

- Management information system (MIS). These summarize the detailed data of the transaction processing system standard report for middle level managers. Such report might include production schedules and budget summarizes.
- Decision support system (DSS); The DSS provide the flexible tools for analyzes. The DSS help middle level managers and other in the organization analyze a wide range of problem, such as effect of event and trend outside the organization. Like the MIS, the DSS draws on the detailed data of transaction processing system.
- Executive support system (ESS): The ESS is easy-to-use systems that present information in a very highly summarized form. It helps top level management to oversee the company operation and develop strategic plans. The ESS combines internal data from TPS and MIS with external data.

2.6 DATA BASES

In the early days of computerization, it was normal to maintain specific files for individual application. Data where processes centrally in batches and there was little or no online interrogation of data. This approach is wholly inefficient for most of today's data processing systems. Supporting this vossen (2017) enumerated the problems that result from organizing the data using the file system.

- There exist high redundancies between files which result from the fact that the information is replicated in different places, and that these replications are not controlled by a central monitor
- Inconsistencies might result from the possibilities that a program makes changes on the files it uses without these changes being made (at the same time) by all other programs that uses the files.
- There exist in flexibility against changes in the application**:** if new actions or event arise in the cause of time, these can be realize at a substantial expense of time.
- The work of many programmers involved is characterize by low productivity, seems program maintenance is expensive: if the

structure of an existing file has to be modify during it life time, then all application program has to be modify correspondently.

- Finally, there is the problem of adopting and maintaining standard (with respect to coding data format etc), which is important for exchanging data or for migration to new operating system released, or even to a new computer system.

To overcome these problems, data bases where developed. It is now common for large organization to organize their operational data using the data base technology. The subject of data is adequately covered in many works in data base technology. Clifton (2014) briefly define data base as a collection of data supporting the operation of an organization. Quoting CIMA, Lucy (2017) provide a more detailed definition.

A data base is a file of data structured in such a way that it may serve a number of application without it structure being dictated by any one of those application, the concept being that programs are written round the data base rather than files being structure to meet the need of particular programs.

Julius (2005) dealt extensively on the need for the use of computer on such data base system like computerized clearance system. In the world of Dimorji (2003). "At the center of any information system is a data base, which is any collection of related information grouped together as a simple item. The term can also apply to the ways in which information is catalogued, analyzed, stored and used manually".

Rossell (2005) was also of the view that without computer, effective handling of candidate record cannot be achieved effectively in a data base, all the data is defined together rather than each file being define separately. In fact, all the literature consulted seem to support the fact that a data base is a collection of structured data with the structure of data being independent of any particular application. Specify the need for data base, O'leary (2017) listed the following advantages:

- Sharing: in an organization, information from one department can be readily shared with others.
- Security: users are giving password or access only to the kind information they need to know. Thus, the payroll department may have access to employees pay rate but they would not.

- Fewer files: with several departments having access to one files, there are fewer files therefore, excess storage or what is called redundancy is reduced.
- Data Integrity: older filing system many times did not have integrity i.e. a change made in the file in one department might not be made in the file in another department. As one might expect, these can cause serious problems and conflict when data is used for important decision affecting but department.

To advantages enumerated above, vossen (2017) at abbs.

- Standard/access protocols can be enforced.
- Currency of data can be maintained.
- Data/program independent can be maintained.
- Conflicting requirement can be balanced among users.

In these days of integrated networks, the database appeared as the most logical method for organizing the operational data of large organizations. One may as well say that these advantages give the database the attraction over the traditional file processing method.

CHAPTER THREE

METHODOLOGY

3.1 Analysis of Existing System

When a student is about to graduate, he/she will take his/her final exam after which they start clearance from various departments and unions, after obtain a clearance form from their department. After moving from different office to be cleared, such student returns back to their department for submission of the form given to them.

The current clearance system of the institution is a manual one. These make the system tedious and time consuming. Here, student has to visit all the clearance offices with a form for them to sign, once this forms are sign, it prove that the student has been cleared, the process can even take some days to be completed and processes a lot of stress to both staffs and the student involved. In the manual system, the clearance forms are documented in a file cabinet. Each time the clearance form is needed, a search operation is conducted on the file cabinet to locate a particular student clearance form.

3.2 Advantages of the Existing System

The clearance system is designed to help students pay all the dues because any student who has not finished his due payment cannot run clearance.

3.3 Disadvantages of the Existing System

Due to the manual means being used by Auchi polytechnic, in keeping information about student's clearance, a lot of problems are encountered which includes:

a. Delay in processing clearance form

b. Unavailability of some key staff while processing clearance form, which leads to students repeatedly visiting a particular office in other to sign his/her clearance form.

c. Loss of vital documents as the filing system is manual

d. Damage of documents due to fire incident.

e. Illegal removal of forms by fraudulent staff leading to insecurity.

f. Takes a lot of time to retrieve a particular clearance form.

3.4 Analysis of the New System

The new system is an automated system that enable student run their clearance without them being present physically. It is fast, secure and reliable. The new system works in a vital way such that admin has to approve what is being submitted by the graduated student before the student can proceed to the next part.

3.5 Advantage of the new system

The advantage of the new system include;

- Fast rate of operation and excellent response time.
- Flexibility (i.e.) it can be accessed at any time
- Accuracy in handling of data
- Easy way of back up or duplicating data in diskette in case of data loss.
- Better storage and faster retrieval system.
- Accessibility from any part of the world.

3.6 Disadvantage of the new system

Below are the disadvantage of the new system

i. It can be hacked and data been stolen.

ii. It can be affected by network failure.

iii. Lack of technical knowhow of staff

3.7 justifications for the New System

The new system is designed to solve problem affecting the manual system in use. It is design to be used online thereby relieving both student and staff from much stress as experienced from the manual system.

This will do the analyzing and storing of information either automatically or interactively, it will make use of online access to internet.

CHAPTER FOUR

SYSTEM DESIGN

4.1 Design Standards

In order to achieve effective online clearance system, Structured System Analysis and Design Methodology (SSADM) were used. This is because; SSADM is an internationally accepted software engineering model mainly used in most result oriented analysis and design

4.2 Output Specification and Design

The sequence of the report is one of the important features that should be concluded. This is emphasized because it forms the basis of the school management decision. It aims at providing the management with adequate, effective, well documented up-to- date and formatted output to help as a tool in planning and decision making / based on the student clearance form.

There are methods of generating reports in the new package.

Hardcopy – This is a process of printing from the printer to paper, and

Softcopy – It is the process of displaying an output on the computer screen.

The reports generated by the system include:

Student Clearance Status

Student clearance certificate

4.3 Input Specification and Design

It is also necessary to denote that data inputted in the computer for processing determines what the output will be. Screen designs are generally or basically made for data entry or capture. Since data are captured from a hardcopy form, the sequence of data capture should be identical to the hardcopy form made for data collection.

The new system is composed mainly of two forms of input form, they are:-

a) Student Register

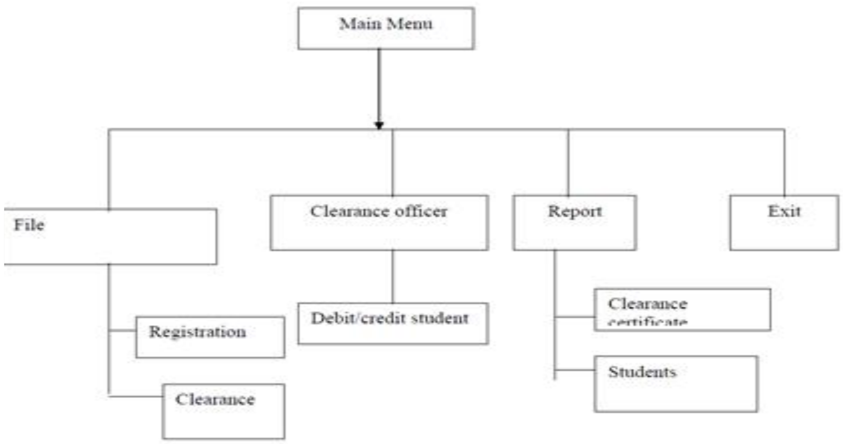
b) Clearance Form

4.4 File Design

The file used in the design is stored in a database file. The database is created using Microsoft Access database. The database Structure is as follows:

4.5 Architecture Design of the proposed System

This shows the full design of how the clearance system application looks like.



4.6 SYSTEM SPECIFICATION

The specification needed to implement this system is as follows.

4.7.1 Hardware Specification

For the effective operation of the newly designed system, the following minimum hardware specifications are recommended.

- The computer system in used should be IBM compatible since they are considered clone systems.
- The Random access memory (RAM) should be at least 128KB.
- The system should have a hard disk of at least 50GB and at least a diskette drive of high density of 1.44MB (3.5 inches)

- The system should be equipped with an E.G.A/V.G.A, a coloured monitor.
- An uninterruptible power supply (UPS) units
- It should be internet ready.

These listed configurations are the minimum requirements but if the configurations are higher the reports derived will definitely be better and the program will run much faster.

4.7.2 Software Specification

The software specifications required on the computer system are:-

- A window 7 or higher version for faster processing
- MysQl as database
- html, php, css and java script

4.7.3 Operational Requirement

A conducive computer office is required. The office has to be equipped with air conditioners, stabilizers, and ups.

4.7.4 Personnel Requirement

A total of 2 computer operators are needed to manage the computer centre. They will oversee the entry of data into the system.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The researcher has been able to achieve the following at the completion of this work. The researcher was able to replace the error prone manual system with the new automated online clearance system.

Data can now be processed with great speed and efficiency

The application has the ability to update records in various files automatically thereby relieving the polytechnic staff the stress of working from file to file.

Security of data is ensured.

5.2 Conclusion

Research and development are continuous processes; this is same in computer and software development. However, the effectiveness and efficiency of this new system provides room for further improvements. As earlier mentioned, some of the objectives of this project were not actualized due to some limitations. So these objectives could be improved upon. Nevertheless, the online clearance system developed will offer greater opportunities in school management. All transactions or payments with regards to student clearance can be carried out online.

5.3 Recommendations

The research work carried out is limited to online clearance only. It will be better if a full portal is developed for an effective and wholesome implementation of information management technology in our polytechnic. When this is done the following modules are recommended to be included in the portal.

1. Automation of student's academic record to enable the management has access to student academic performance.
2. Pasting of result online.
3. Maintaining a central database for accessing all information relating to students.

REFERENCES

Anigbogu, G. (2015). *Systematic Planning for Educational Change.* California Mayfield Publishing Company.

Anigbogu, G. (2000). *Educational and the Youth.* California Mayfield Publishing Company.

Chimezie, F. (1990). *Use of local area networks in schools.* New York: ERIC Clearinghouse on Information Resources.

Clifton, E. B. (2014). Management of records in Nigerian Universities: Problems and prospects. *The Electronic Library* 23 (30)

Cox, H. (2005) *Computer Science.* U. K: T.J International.

Creasy, D. (2004). The Internet in Education. [Special issue]. "*Internet World*," 6(10).

Dimorji, U. (2003). *The Feature of Records Management in Nigeria.* The Nigerian Archivist. *Journal of the society of Nigerian Archivists* 1(2&3).

Enwerem, J. C. (2012). *Records Management in Nigeria: To be or not to be? Nigeria Library and Information Science Review.* Lagos, Nigeria: Akin Publishing Ltd.

Enwerem, J. C. (1992). *Management and Science in Nigeria:* Lagos, Nigeria: Akin Publishing Ltd.

Funk, M. (2016). *Perspective in Educational Planning.* Ibadan, Nigeria: Odun Prints and Pack.

Graham, E. (2001). Managing Records in the Modern Office: Training the Wild Frontier. *Archivaria* 39 (Spring)

Guhu, S. (2001). Establishment of Management Information in Sind Province, UNESCO *Technical Report*: Project PAK/77/038

Hew, E. and *et al* (2004). *Records Management Programme*. Ibadan, Nigeria: Adeyomi Printing Press.

Hewlet, R. (2016). *Effective Records Management: a tool for effective counseling in the school systems.* Journal of counseling and Communication.

Hill, S. (2005). Information Provision to Academic Research and Development organizations in the 21st century. *The Information Manager* 2(1)

Hoff, M. (2002). *Education and Training Achieves and Records Manager in Africa*. Ibadan, Nigeria: Odun Publishing Company.

Hordeski, F. (1986). *Research Methods: Application of Scientific Research Methodology and Documentation.* Trans-Ekulu, Enugu: Joen Publishers.

Julius, P. (2005). Interne-based distance learning in higher education. Tech Direction, 62(1): 23-35.

Jeremy, D. (2013). *Data Models, Database Languages and Database Management Systems*. London: Adison-Wesley Publishing

Kenneth, D. (2016). A few common misconception about distance learning. Published proceedings of the ASCUE conference, Mytle Beach, SC

Kaczynski, E. and Kelly, C. (2004). *Data and Processing Procedure:* Nigeria, Samuel Printing Press Ltd

Liang, A. (2014). Students' perceptions towards the quality of online education: A qualitative approach. Published proceedings of the Association for Educational Communications and Technology Conference, Chicago, IL.

Lucy, X. (2017). Online Clearance System. A student project supervised by Zuhaib and submitted to CSE Department, QUEST, Nawabshah

Mayer, k. (2002). Students' perceptions towards the quality of online Education: A Qualitative approach. Published Proceeding of the Association for Education Communications and Technology Conference, Chicago, IL

O'Leary (2017). Design and Implementation of Online Clearance System: A Case Study of Imo State University. European Journal of Applied Science, 7(1): 25-31, ISSN 2079-2077. DOI: 10.5829/idosi.ejas.2015.7.1.1128.

Obilikwu, U. (2010). Strategic Planning for Information System, 3rd Edition. West Sussex, John Wiley & Sons Ltd.

Oketunji (2002). State of the college: Achieving long-term goals. Presented at the biannual Meeting of North Carolina State University's College of Education, Raleigh, NC

Peirier, F. and Feldman, K. (2004). Classroom Assessment in Web-based Instructional Environment: Instuctors' Experience. Practical Assessment, Research & Evaluation, 9(7): 223-234.

Rossell, K. (2005). Curriculum development for teaching qualitative data analysis online. Proceedings of the International Conference on Qualitative Research in IT and IT, Brisbane, Australia.

Vossen K. (2017). Online Education Evaluation: What should we evaluate? Proceedings of the Association for Educational Communications and Technology Conference, Chicago, IL.

Yong, U. and Conellus, E. (2004). An effective way of teaching early childhood education online. Childhood Education, 77(4), 226-229.

APPENDIX 1

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <title>Online Clearance | Dashboard</title>
  <!-- Tell the browser to be responsive to screen width -->
  <meta content="width=device-width, initial-scale=1, maximum-scale=1,
user-scalable=no" name="viewport">
  <!-- Bootstrap 3.3.7 -->
  <link rel="stylesheet"
href="bower_components/bootstrap/dist/css/bootstrap.min.css">
  <!-- Font Awesome -->
  <link rel="stylesheet" href="bower_components/font-awesome/css/font-
awesome.min.css">
  <!-- Ionicons -->
  <link rel="stylesheet"
href="bower_components/Ionicons/css/ionicons.min.css">
```

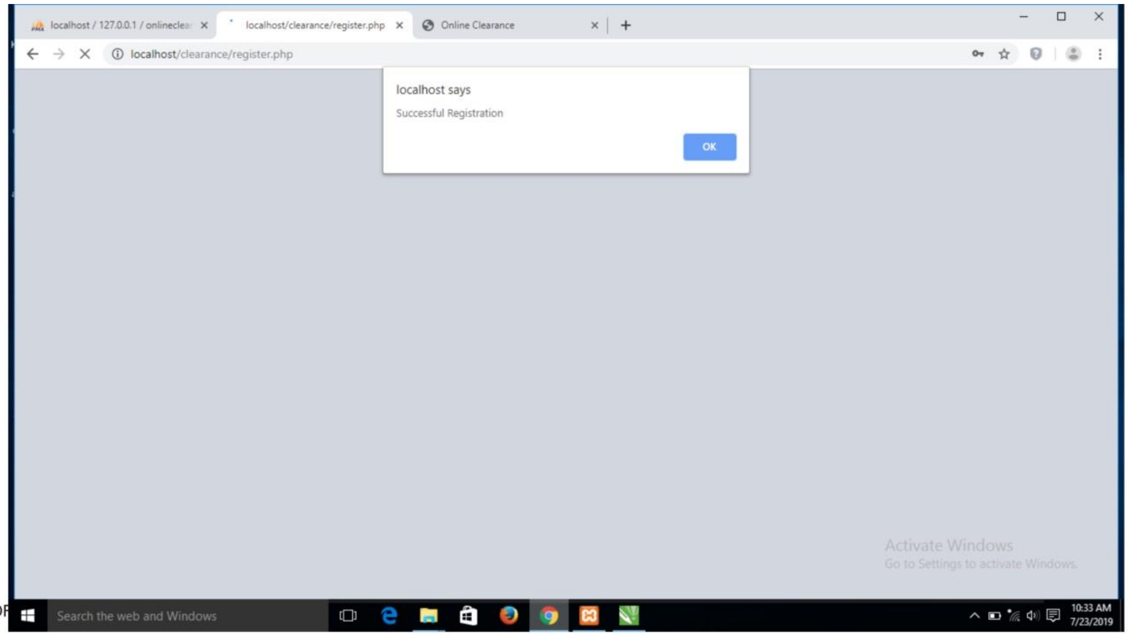
```
  <!-- Theme style -->
  <link rel="stylesheet" href="dist/css/AdminLTE.min.css">
  <!-- AdminLTE Skins. Choose a skin from the css/skins
       folder instead of downloading all of them to reduce the load. -->
  <link rel="stylesheet" href="dist/css/skins/_all-skins.min.css">
  <!-- Morris chart -->
  <link rel="stylesheet" href="bower_components/morris.js/morris.css">
  <!-- jvectormap -->
  <link rel="stylesheet" href="bower_components/jvectormap/jquery-
jvectormap.css">
  <!-- Date Picker -->
  <link rel="stylesheet" href="bower_components/bootstrap-
datepicker/dist/css/bootstrap-datepicker.min.css">
  <!-- Daterange picker -->
  <link rel="stylesheet" href="bower_components/bootstrap-
daterangepicker/daterangepicker.css">
  <!-- bootstrap wysihtml5 - text editor -->
  <link rel="stylesheet" href="plugins/bootstrap-wysihtml5/bootstrap3-
wysihtml5.min.css">
```

```
  <!-- HTML5 Shim and Respond.js IE8 support of HTML5 elements and
media queries -->
  <!-- WARNING: Respond.js doesn't work if you view the page via file://
-->
  <!--[if lt IE 9]>
  <script
src="https://oss.maxcdn.com/html5shiv/3.7.3/html5shiv.min.js"></script>
  <script
src="https://oss.maxcdn.com/respond/1.4.2/respond.min.js"></script>
  <![endif]-->

  <!-- Google Font -->
  <link rel="stylesheet"
href="https://fonts.googleapis.com/css?family=Source+Sans+Pro:300,400
,600,700,300italic,400italic,600italic">
</head>
<body class="hold-transition skin-blue sidebar-mini">
<div class="wrapper">
```

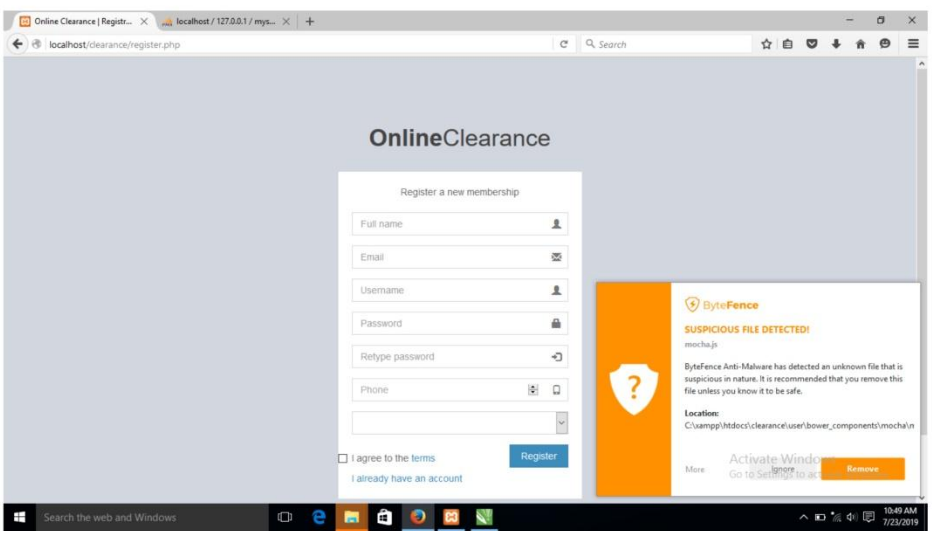
```
  <header class="main-header">
    <!-- Logo -->
    <a href="index2.html" class="logo">
      <!-- mini logo for sidebar mini 50x50 pixels -->
      <span class="logo-mini"><b>O</b>C</span>
      <!-- logo for regular state and mobile devices -->
      <span class="logo-lg"><b>Online</b>Clearance</span>
    </a>
    <!-- Header Navbar: style can be found in header.less -->
    <nav class="navbar navbar-static-top">
      <!-- Sidebar toggle button-->
      <a href="#" class="sidebar-toggle" data-toggle="push-menu"
role="button">
        <span class="sr-only">Toggle navigation</span>
      </a>

      <div class="navbar-custom-menu">
        <ul class="nav navbar-nav">
```

```
<!-- Messages: style can be found in dropdown.less-->


<!-- Notifications: style can be found in dropdown.less -->


<!-- Tasks: style can be found in dropdown.less -->


<!-- User Account: style can be found in dropdown.less -->
<li class="dropdown user user-menu">
  <a href="#" class="dropdown-toggle" data-toggle="dropdown">
    <img src="dist/img/user2-160x160.jpg" class="user-image"
alt="User Image">
    <span class="hidden-xs">eddy</span>
  </a>
  <ul class="dropdown-menu">
    <!-- User image -->
    <li class="user-header">
      <img src="dist/img/user2-160x160.jpg" class="img-circle"
alt="User Image">
```

APPENDIX II

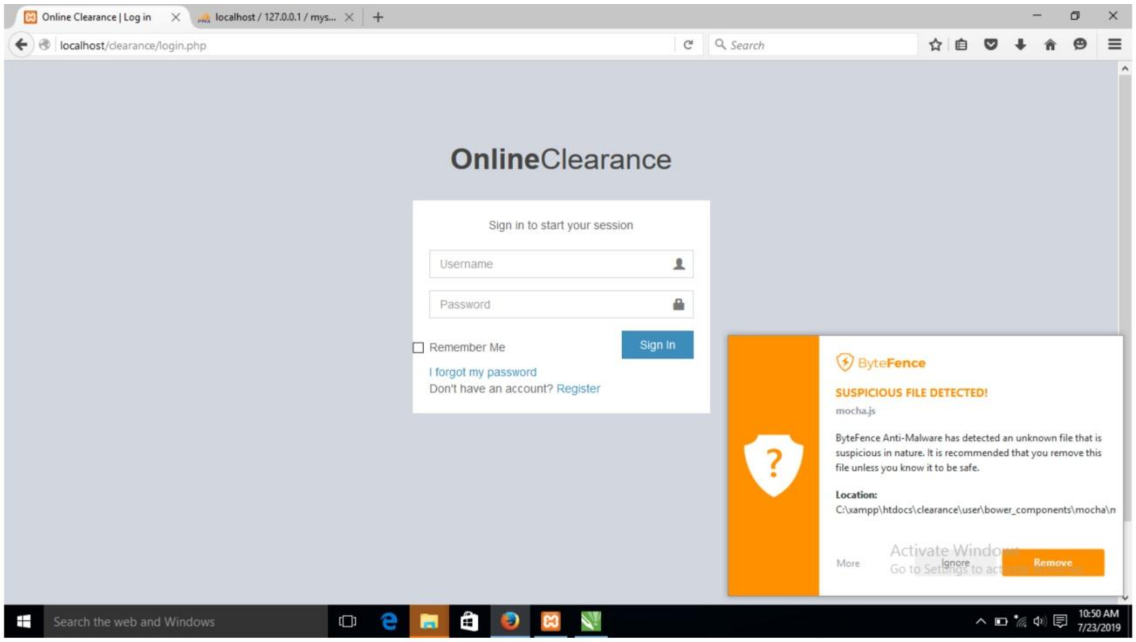


successful Registration Page

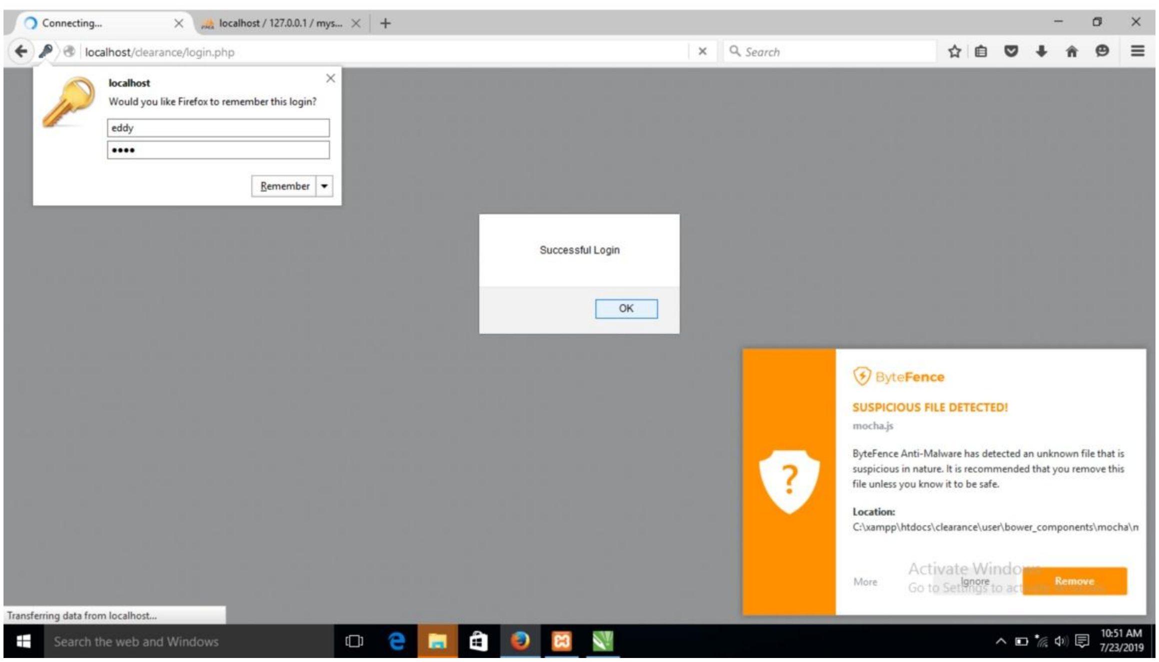


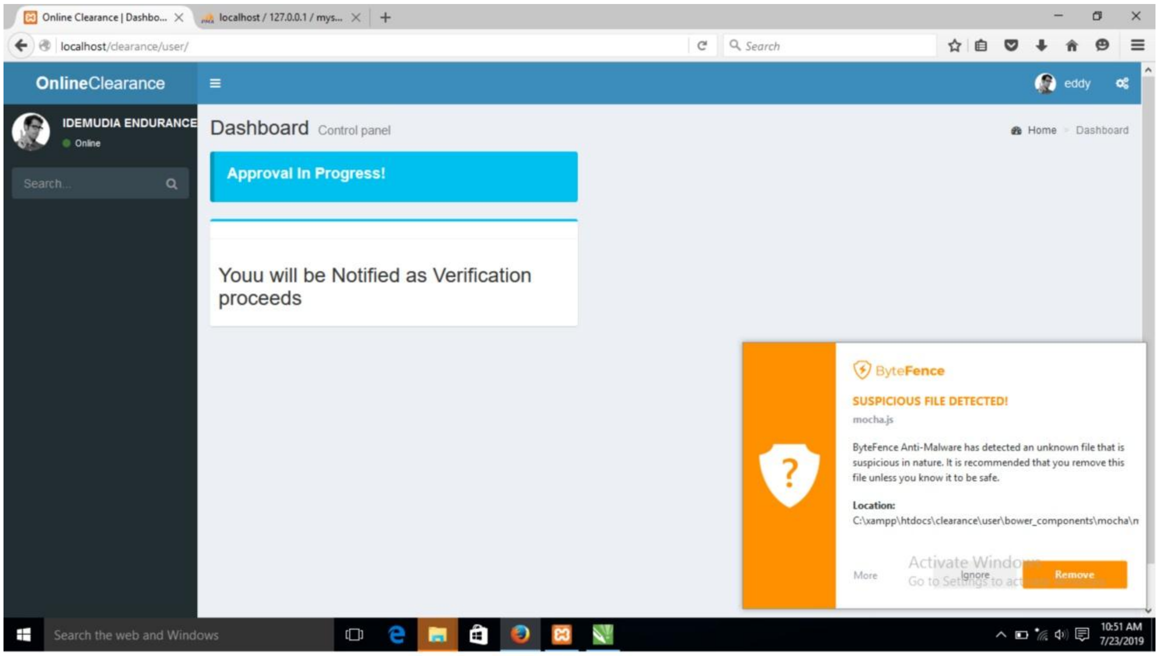
Registration Page

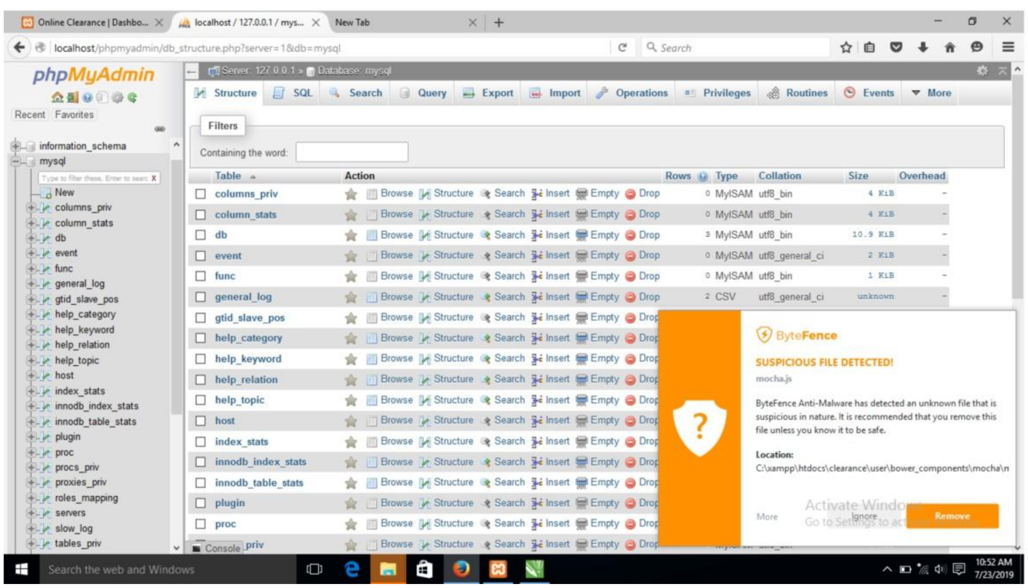
Login page



Successful log in page




Online Clearance | Dashbo...
localhost / 127.0.0.1 / mys...
localhost/clearance/user/
OnlineClearance
eddy
IDEMUDIA ENDURANCE
Online
Search...
Dashboard Control panel
Home > Dashboard
Approval In Progress!
Youu will be Notified as Verification proceeds
ByteFence
SUSPICIOUS FILE DETECTED!
mocha.js
ByteFence Anti-Malware has detected an unknown file that is suspicious in nature. It is recommended that you remove this file unless you know it to be safe.
Location:
C:\xampp\htdocs\clearance\user\bower_components\mocha\n
More
Ignore
Remove
Search the web and Windows
10:51 AM
7/23/2019


Online Clearance | Dashbo...
localhost / 127.0.0.1 / mys...
New Tab
localhost/phpmyadmin/db_structure.php?server=1&db=mysql
phpMyAdmin
Recent Favorites
information_schema
mysql
Server: 127.0.0.1 » Database: mysql
Structure SQL Search Query Export Import Operations Privileges Routines Events More
Filters
Containing the word:
Table Action Rows Type Collation Size Overhead
columns_priv
column_stats
db
event
func
general_log
gtid_slave_pos
help_category
help_keyword
help_relation
help_topic
host
index_stats
innodb_index_stats
innodb_table_stats
plugin
proc
procs_priv
proxies_priv
roles_mapping
servers
slow_log
tables_priv
Browse Structure Search Insert Empty Drop
MyISAM utf8_bin
MyISAM utf8_general_ci
CSV
ByteFence
SUSPICIOUS FILE DETECTED!
mocha.js
ByteFence Anti-Malware has detected an unknown file that is suspicious in nature. It is recommended that you remove this file unless you know it to be safe.
Location:
C:\xampp\htdocs\clearance\user\bower_components\mocha\n
More
Ignore
Remove
Console
Search the web and Windows
10:52 AM
7/23/2019

Database