**DEVELOPMENT OF CBT VENUE ALLOCATION AND SCHEDULING SYSTEM** **FOR AHMADU BELLO UNIVERSITY, ZARIA.**

**BY**

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**U16CS1006**

**A PROJECT SUBMITTED TO THE DEPARTMENT OF COMPUTER SCIENCE**

**AHMADU BELLO UNIVERSITY, ZARIA, NIGERIA**

**IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF BACHELOR OF SCIENCE (B.Sc. Hons.) IN COMPUTER SCIENCE**

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# DECLARATION

I, BELLO FATIMA LIMAN, hereby declare that this project titled (Development of CBT venue allocation and scheduling system for Ahmadu Bello University, Zaria) has been carried out by me under the supervision of MAL. M.Y TANKO. It has not been presented for award of any degree in any institution. All sources of information are specifically acknowledged by means of reference.

 

BELLO FATIMA LIMAN DATE

U16CS1006

# CERTIFICATION

This project titled “Development of CBT Venue Allocation and Scheduling System for Ahmadu Bello University, Zaria.” by BELLO FATIMA LIMAN meets the requirements governing the award of the degree of Bachelor of Science in Computer Science and is approved for its contribution to knowledge and literary presentation.

Mal. M.Y TANKO DATE

(Supervisor)

O. N. OYELADE DATE

(Project Coordinator)

PROF. S. B. JUNAID DATE

(Head of Department)

# DEDICATION

I dedicate my project work to everyone in the world who truly love me.

# ACKNOWLEDGEMENT

# ABSTRACT

This project titled “Development of a CBT venue allocation and scheduling system for Ahmadu Bello University Zaria” is designed to address some of the drawbacks encountered with respect to the existing system of venue allocation and scheduling for Computer Based Test. An automated system designed using HTML, CSS, Bootstrap, AJAX and JavaScript on the client-side and technologies on the server-side include PHP and MySQL. The project work covers five chapters showing how progress was achieved from definition of concepts, identifying methodologies, stating aim and objectives, designing the architecture of the system, implementation of the functional and non-functional requirement to summary, conclusion and recommendations that will serve the requirement for further implementation and reviewed literature.

# TABLE OF CONTENTS

# CHAPTER ONE

# INTRODUCTION

* 1. **Background of study**

The availability of network has undoubtedly made so many aspects of our life easy from the way we learn, entertain ourselves, receive information and lots more. This indeed has led to making Internet a necessity in our daily activities.

The university today have a lot of students which result to difficulty in assessment. The introduction of the computer based testing method have resolved numerous issues like reluctance of lectures in marking exams/test scripts, missing papers, manual recording etc.

However, the manual approach to which the lecturers are allocated venue and scheduling for the test have brought problems. The limited facilities in the university like working computers, conducive environment, working hours’ and more has made a necessity to proper coordinate the conduction of the computer based test.

Therefore, there is a need to develop a system to automate the manual request and allocation of CBT venue allocation and scheduling. So every lecturer can place a request for a planned test and be granted an unscheduled time and venue and more importantly easing the task of the administrator concerned.

**1.2 Problem Statement**

Currently, venues and time slots for CBT tests are manually allocated by the staff at Iya Abubakar Institute of Information and Communication Technology. This manual way of scheduling and venue allocation has resulted in a number of problems, some of which are highlighted below.

1. Numerous tests have been cancelled because of wrong time allocated.
2. Clash of venue between two or more tests.
3. Insufficient time allocated to a particular test considering the class size and the duration of the test.

**1.3 Motivation**

The motivation behind this project is to have an automated system that will efficiently handle scheduling and Venue allocation for CBTs, hence addressing the problems encountered with the manual approach and easing the task of the admin concerned.

**1.4 Aim and Objectives**

The aim of the proposed project is to develop a CBT Venue and Allocation System for Ahmadu Bello University Zaria, to address the problems encountered with the manual approach.

The objectives are:

1. Conduct an extensive review of how the current system of venue allocation and scheduling works by Interacting with the ICT staff at Iya Abubakar Institute of Information and Communication Technology.
2. Design the architecture of the System.
3. Implement the System.
4. Test the implemented system.

**1.5 Methodology**

The implementation of the project topic is a web based. So, the following methodologies are used in designing and implementing the system.

1. Software Ideas Modeler used in designing the architecture of the system.
2. MySQL workbench used in modeler the system’s database.
3. HTML, CSS, PHP and MySQL are used in implementing the system.
4. The implemented system will be tested on a computer with the following software installed on it
5. Apache HTTP server
6. Web browser
   1. **Scope and Limitation**

The architecture of the system is a client-server architecture so need Internet presence. It is only accessible for the lecturers of the university.

* 1. **Organization**

This project work is divided into five chapters. Chapter One introduces background of the work and states the how to achieve the system. Chapter Two contain the literature review and related concept. Chapter Three designs the system. Chapter Four shows the system implementation and how the system actually works. Chapter Five include summary of the whole project, conclusion and some recommendations for future work.

# CHAPTER TWO

# LITERATURE REVIEW

**2.1 The concept of Computer Based Test**

Computer Based Test (short for CBT) is a form of assessment and evaluation in which questions are delivered on a computer screen. The conduct of the examination is through the web or intranet and it reduces the large proportion of workload on examination, grading and reviewing. The set of questions often use in the Computer Based Tests are multiple choice, objective test and true/false that can be formally and easily evaluated online. It reduces the issues that keep arising with manual form of assessment done in most educational institutions some of which are missing scripts, mistakes in recording of results, marking errors and lots more. It an approach that have make the examiner work easier.

**2.2 The concept of Web based Application**

A web based application is a software system or computer program that runs over the web.  
 They run on hardware devices (computer, tablets, mobile phones) that are connected to a network (Internet or intranet) to deliver dynamic web content providing the right environmental variables and CGI scripts. Its incorporates databases to save and retrieve valuable information and delivers functions of significant web services that are available. A web application is accessible to any client who can access the server from any remote location with necessary authorization credentials where necessary.

**2.3 The concept of Venue allocation and Scheduling**

Allocation as a word can be referred to as assigning or giving a resource to someone or something while scheduling deals with time factor. Venue allocation and scheduling are two terms to be used together in the concept of this work. It simply the act of assigning a particular venue of the university authorized for the conduct of computer based test to a particular course for assessment in an unscheduled hour. This is very necessary because of the limited facility in the university thereby require proper management considering the class size, the test span, the total duration for the test and more crucial factors.

**2.4 Related work**

In an attempt to review related literature, A. H. Abdullahi developed an automated system to solve the issues that kept arising with manual house request and allocation in Nigerian Airforce Base Kaduna. The research was to eliminate inadequate data storage and protection, lot of paper to keep document (waste of resources), slow response, lack of prompt updating and data losses. It was taken into consideration to address the problem of the current system of house allocation in the base, solve the actual complications encountered, identifying the most important requirement and so using an effective method to achieve an automated system.

**2.5 Overview of Existing System**

Existing system refers to the system that is being used till now. It is of significant importance for every research work to indicate and outline the study of it is related literature regarding the existing system. This is necessary because the necessity that calls for changes is as a result of some deficiency or shortcomings peculiar with it. At present, Ahmadu Bello University Zaria still uses manual procedure to request for time slots and venue for computer based test which is prone to error and inconsistency.

**2.6 Problems of Existing System**

1) Time factor: The manual technique consumes a lot of time.

2) Human error: Inaccurate computation of scheduling.

3) Risk: The misplacement of application form or exposing them to damage.

4) Communication: The rate of communication is relatively low because it needs physical presence.

**2.7 The proposed system**

Considering all these problems that are associated with the existing system, a more advance process of venue allocation and scheduling must be considered. The drawbacks and inherent limitations of the current existing system have been analyzed with the aim of developing a user-friendly and GUI-oriented system that will among other things:

1. Facilitate timely allocation of venue to lectures.
2. Management of venues.
3. Enable viewing of scheduled time and venue.
4. Interactive section with allocation officers that no need physical presence.
5. Accurate information and minimized risk.

# CHAPTER THREE

# SYSTEM DESIGN AND ARCHITECTURE

# CHAPTER FOUR

**SYSTEM IMPLEMENTATION**

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# CHAPTER FIVE

# SUMMARY, CONCLUSION AND RECOMMENDATION

# 5.1 Summary

**5.2 Conclusion**

The implemented system in the university will go a long way in solving venue allocation and scheduling issues currently being faced the university and will also make work easier for the staff involved.

**5.3 Recommendation**

# REFERENCES

Design and Implementation of house allocation and management system (a case study of Nigerian Airforce Base, Kaduna) by Adamu Hajara Abdullahi, November 2015.