**PROJECT PROPOSAL**

**DESIGN AND IMPLEMENTATION OF A VIRTUAL CLASSROOM**

**(A CASE STUDY OF UNIVERSITY OF IBADAN DISTANCE LEARNING)**

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**IN PARTIAL FUFILMENT OF THE REQUIREMENTS FOR THE AWARD OF A BACHELOR OF SCIENCE DEGREE IN COMPUTER SCIENCE**

**(B.Sc. COMPUTER SCIENCE)**

**CHAPTER ONE**

**1.0 INTRODUCTION**

In this era of stringent and space constraints, the need for individuals and establishment to save travel expenses, manage resources and foster communications between this burgeoning mass of people and society at large is obvious than before.

It is the aforementioned issues that necessitate the need for research effort along the line of distance learning. Distance learning is not a new concept and had been present since the days of correspondence lecturers and church services, where letters are exchanged between churches/learning institutions and devotes/students. Sign language lessons have also been tailored for the audience and are effective means of improving communications with speech-impaired counterparts. Special videotapes and CDs, including audio, have been prepared now and used to impart knowledge on students.

This work is geared towards fostering a rich distance learning experience, through the web, for an academic department, where assignment turnaround times are short for students to meet –up. Students may post questions and receive answers to questions from this dynamic environment. Lecturer may as well, come online to answer questions posted by students.

Before delving into the minutes of distance learning and inherent management issues. It is necessary to define distance learning and other terms. This would give a clearer understanding of the following discourse to the reader.

A better definition is provided by Mugridge(1991) who states that it is “a form of education in which there is normally a separation between teacher and learner and thus, one in which other means of printed and written word, the telephone computer conferencing or teleconferencing, for example are sued to bridge the physical gap.

**1.1 BACKGROUND OF THE STUDY**

A virtual classroom is a system that gives the same facilities for the teaching - learning process, beyond the physical limits of the traditional classroom's walls. Due to the access of the Internet, most virtual classrooms are based on World Wide Web. Wikipedia.com says, “A virtual classroom is a learning environment created in the virtual space. Virtual Classroom is a simulated classroom via Internet, which provides a convenient communication environment for distance learners just like traditional face-to-face classroom. A virtual classroom allows learners to attend a class from anywhere in the world and aims to provide a learning experience that is similar to a real classroom.

The New Virtual Classroom is a terrific resource for designing and delivering effective webinar training. The interaction between the students and faculty happen via E-Mail. Students can do questioning to their faculty in the Discussion Forum section or via E-Mail. Students can view lectures as many times they want. They can check their status. These are the salient features of virtual classroom It is basically designed for student who are unable to attend the class due to some reason. For that, it will help them to view lecture, view exam assignment at any time. we try to offer a range of facilities in this software that will maintain all student, faculty and course records in a much more efficient way with much less hassle.

**1.2 PROBLEM STATEMENT**

During the course of gathering information and resources at the university of Ibadan distance learning, Ibadan, we discovered that they do encounter a lot of problems in managing the system which of course was carried out manually. The problems noticed are listed below and how it affect them:

a) Accuracy: During our investigation, it was discovered that those staff to manage the system are not accurately selected and by so doing, there are lots of manipulations during the registration of students for courses and also keeping tracks of their contact information.

b) Time wastage: It do take them some days to manually register students for course into respectively departments and also it takes much time for lecturers to grade the students’ continuous assessment and assignment.

c) Loss of record: It was learnt from one of their staff that they do lose records of students that have be filed into their respectively department due to improper record-keeping and lack of security.

d) Result delay: During our investigation, we discovered that the lecturer is delaying the result of their students due to some circumstances such as missing scripts, continuous assessment not recorded, etc.

**1.3 AIM AND OBJECTIVES**

The aim of this project is to implement an efficient virtual classroom for distance learning students taking University of Ibadan Distance Learning center as a case study. The aims and objectives to be achieved during the course of the project are;

* Register students for courses and also keep track of their bio-data and contact information.
* Keep track of students’ assignments on a course level in the following ways:
* Allow students to submit assignments within stipulated time frames.
* Enable lecturers to grade and comment on students’ assignments.
* Maintain a question database enabling students to ask course specific questions and get responses to these questions both from peers and lecturers alike.
* Providing an easily accessible, better, efficient, faster, user-friendly Portal.

**1.4 METHODOLOGY**

This study will be researched as follows:

* Design of the online distance learning management database schema using entity relationship diagrams.
* Design of web interface and business logic of the system using UML diagrams.
* Implementation of the database SQL using MYSQL ROMS.
* Implementation of the web interface and the business logic of the system, which will interact with the database, with JSF technology using Java Studio Creator as then Integrated Development Environment (IDE).
* Testing of the web application with students’ data to verify the proper functioning of the system.

**1.5 SCOPE OF STUDY**

This project will be restricted to achieving the stated objectives and performing the mentioned task in an academic department, rather than the entire institution.

**1.6 JUSTIFICATION OF STUDY**

Information technology has come a long way and has made a great impact on psyche of the average person on the street corner. It is no longer business as usual and this work rises to the challenges of a changing ethos in distance learning management. To meet the yearning for a dynamic learning environment by the public, who want information at the tip of their fingers, a project work of this nature has become necessary.

Distance learning implies that there is no face-2-face interaction between the teacher and students and also that the students’ progresses through the course in relative isolation. A project effort of this nature is necessitated by the need to foster better relation between students and lecturers and also improve the overall learning experience. Project along these lines will reduce the case of drop-outs by effecting performance through electronically submitted assignments.

**1.7 DEFINITION OF TERMS**

* **Computer:** An electronic device for storing and processing data, typically in binary forms, according to instructions given to it in a variable program.
* **Management:** This is a group of people responsible for controlling and organizing a company.
* **Record Keeping:** The maintenance of a history of one’s activities by entering data in ledger etc.
* **W.W.W:** This is also known as World Wide Web and is unique because one can easily link one document to another.
* **Web browser:** These are program that are used so access a website in the internet by specifying the URL of the website e.g. Mozilla, Opera-mini.
* **Database:** It is a container storing data that people (or devices) can interact with. It usually stores data in a structured way and it does it by creating object that represent real life objects, processes or event.
* **Application:** A program or a group of programs designed for end-users. It is the use of a technology, system or products.
* **Software:** Is a general term for a various kind of program use to operate computer and related devices.
* **Secondary Storage:** Storage, as on disk for tape, supplementary to and slower than main storage, not under the direct control of the C.P.U and generally contained outside it.
* **Program:** Series of instructions enabling a computer to perform a task.