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Recommending an online Correspondence System for Higher Education learning and Communication in Lockdown Era.

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ABSTRACT: The paper focuses on how Nigerian colleges were able to give knowledge during a lockdown or pandemic, when colleges had to adapt the educational process to merely online tutoring and scholarship in a very short period of time. As a result, the benefits of online communications are increasing in importance, while the negatives are becoming less noticeable.The goal of the project is to offer an online correspondence system for guiding communication with academics. The proposal's goal is to propose an online correspondence framework for students to use as a guide for communication.The paper, as an added benefit separate from the road for persistent engagement, contributed to the difficulties faced by students in meeting assignment time limits and the cost involved with producing printed copies of paper, necessitating the premium to design an easy-to-use framework to tackle these questions.Students will be able to submit assignments online to a specific course address, and there will be suitable communication between presenters and students who approach the framework for review purposes.

Keywords: Online learning system, Lockdown era, mixed learning approach, Education

I. INTRODUCTION

A virtual learning environment is an online software design framework including a variety of tools and applications that empower online correspondence. Initially produced for distance learning but however now regularly utilized as a component of a mixed learning approach [1], virtual learning conditions remains one of the most critical instruments for the advancement of education and learning practices that can assist the changing act of instruction and teaching methods. Institutional execution and understudy commitment with virtual learning conditions has been moderate [2], however in decade past there has been unmistakable attempt to use virtual learning conditions to help instructing and learning in higher education [3]An online correspondence system for both student and tutor communication system is a system that is used to track all the incoming and outgoing correspondence of an institution and make them available to all application users according to their roles and access. It is a system that is contained within the Module virtual learning environment. The functionality of the standard correspondence handling module has been extended to cater for all the Department's needs in terms of receiving assignments from students, making them available to tutors to mark, returning grades, comments and marked work to students and keeping Registry and course administrators informed at all stages of the process. Extension requests are an integral part of the system.

Universities, Polytechnics and colleges of education are considered the main provider of knowledge in various fields. Various courses of studies are taught in institutions, covering several fields including applied Sciences, Math, Computer, Human Resource, and Accounting. Most courses at universities consist of theoretical as well as practical subject matter. To evaluate the level of understanding and degree of comprehension among students, assignments are often given, hence the need for a correspondence system.

Assignments are submitted by students either individually or in groups. Assignment management involves collecting, marking, and redistributing to students. Online correspondence system is broken down into four stages: submission, recording, marking, and return. Online assignment submission and tutor communication management (OASM) involves the use of the World-Wide Web, the Internet and computers to aid this process. With traditional assignment submission system and tutor communication system, lots of problems arise especially when the

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students have to submit the answers of the assignment to the lecturer. There may be problems due to distance, time, or format of the assignment (written or printed). Also every learning process requires administrative support. Much of this administrative support is to some degree transparent but if the latter is not well organized it could disrupt the flow of learning between students and the staff.

As the educational world is moving faster and becoming more competitive, there is every need to integrate system into all learning environments. This technology will no doubt facilitate lecturers tasks, make communication between teachers and students very cordial and also enable our institutions to be in pace with this fast moving IT world.

Many reported failures in courses thought in the tertiary institutions can be attributed to the carelessness of the course representative or the teaching assistant who failed to submit an assignment paper to the lecturer for marking. Such careless behavior could lead to a zero mark for the victim whose paper was declared missing or simply not found. The manual method of submitting assignments to the course lecturer or directly to the lecturer in most Nigerian Universities is simply not effective as these papers could get damaged or get missing due to the carelessness of the course representative or the lecturer.

Moreover, assignments that are large in terms of pages or volume could easily discourage a student from submitting due to financial constraints brought about by high cost of printing an assignment. All these problems highlighted are the main reasons for carrying out this research in order to develop an electronic assignment submission system to curtail these challenges and make studying, communication more enjoyable in our tertiary institutions. A portion of the squeezing need for this work is to introduce an online correspondence and correspondence framework. For legitimate documentation of understudies' record in the educational system. Furthermore, this proposed framework is outfitted towards giving a structure to guarantee equivalent freedom and unprejudiced audit of understudy task accommodation..

II. REVIEW OF RELATED LITERATURE

A simple, modern form of electronic assignment marking is to use Microsoft Word which is popular and affords some advantages over manual methods. Feedback comments can be provided through hidden text, the Comment facility or by using different fonts and colours. Changes can be examined through the Track Changes facility. This may be satisfactory for written word assignments.

There are many examples of more sophisticated uses of electronic-based assessment reported in the literature, ranging from online questionnaire generators to comprehensive systems which may include submission of assignments and examinations, plagiarism checking and marking.

[4] Proposed an Online Assignment Submission (OAS), a model dependent on recognizing the client usefulness that exist in the System. The normal outcome from this model is to show the consequence of capacity test from the instructor side in e-learning measure which incorporate Upload task, Evaluate understudy task and Identify understudy those that don't participate in task. has been widely used by information technology teachers for many years, taking the form of email submission, transferring files to a specified directory or providing marker access to directories and files on systems. A brief search of the web still reveals many examples where these practices are continued.

The work done by [5] includes six applications, enabling the user to create interactive multiple-choice, short-answer, jumbled-sentence, crossword, matching/ordering and gap-fill exe needed for programming assignments.

[6] This article presents a contextual investigation describing the transformation of the evaluation technique for a programming course in advanced education to a completely online format during the COVID-19 pandemic, through an automated student-focused appraisal apparatus. The programming course examined in this investigation is important for the Bachelor's Degree in Telecommunications Engineering at UPM (Universidad Politécnica de Madrid). Pieterse [6] investigated the variables that add to the fruitful application of automated appraisal frameworks for programming tasks, reasoning that these variables include the quality and clearness of the tasks, all around picked test data, valuable criticism and so on Altogether, in excess of 100 automated evaluation frameworks for programming tasks have been detailed in the literature. Carless et al. [7] set up a reasonable system for learning-focused appraisal. Carless [8] developed the idea of learning-focused appraisal itself through three trademark components: and easy to use environment for students and is not constrained by certain operating systems. [9] is about the absolute latest examination discoveries associated with occupied picking up, including why students, and

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individuals by and large, get diverted in any case, and to share some viable methodologies and ideas to help our students, and ourselves, get engaged. Figuring out how to become indestructible is a fundamental and ageless expertise for accomplishment in education, just as numerous different aspects of life.

According [10]. Online Assignment Submission and Management (OASM) is one administrative task that can consume much of a course coordinator's time. Reducing the amount of time consumed, addressing other problems, and benefiting from new advantages are some of the reasons which have driven many staff to adopt and use OASM. The model recommends that current task accommodation and the board (OASM) measures, be it online or more customary techniques, are the beginning stages of the transformative development. The experience acquired with the current framework that creates the need to search for alternate strategies. In the event that past experience has featured almost no issues as seen by the individual staff and students then there is no prerequisite for alternatives. Based on the review of the existing systems, my work will address the following: the proposed system is geared towards providing a system to assure equal opportunity and impartial review of student assignment submission, in the University. The online assignment submission system to be developed allows for assignment submission by students, faculty registration, lecturer registration, course registration, department registration, users registration, and student registration, perform scores /grades registration, test scores assessment and article entry.

III. ANALYSIS AND DESIGN OF THE PROPOSED SOLUTION

This chapter discusses the analysis and design of the proposed system. It focus on the system structure and interactions. It begins with a description of the system using software UML diagrams such as the Use case and Activity diagrams. A program specification showing the flow of commands and segmenting the system into subroutines is also used to further describe the system. The database structure is also discussed with entity relationship diagrams (ERDs) showing the layout of the database.

3.1 DESCRIPTION OF THE SYSTEM

The proposed system is geared towards providing a system to assure equal opportunity and impartial review of student assignment submission, in the University of Lagos. The online assignment submission system to be developed allows for assignment submission by students, faculty registration, lecturer registration, course registration, department registration, users registration, and student registration, perform scores /grades registration, test scores assessment and article entry. The rest of this section describes the components and modules of the proposed system in terms of software UML diagrams. We will use more of diagrams in describing the system

3.1.1 Use Case Diagram

One can visualize high level system functions of requirements by drawing use case diagrams, which contain primary actors and use cases. Actors are entities that interact with the system while use cases are system functions that actors involve in.

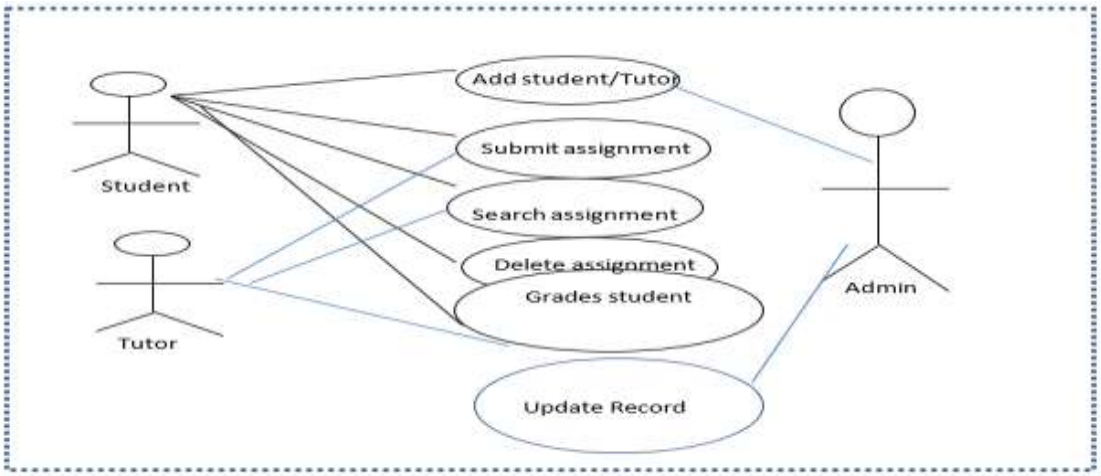

Fig. 3.1 USE CASE diagram for the proposed system

As seen in Fig. 3.1, there is one actor involved in the system. This actor is normally the admin / lecturer.

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3.1.2 Activity Diagram

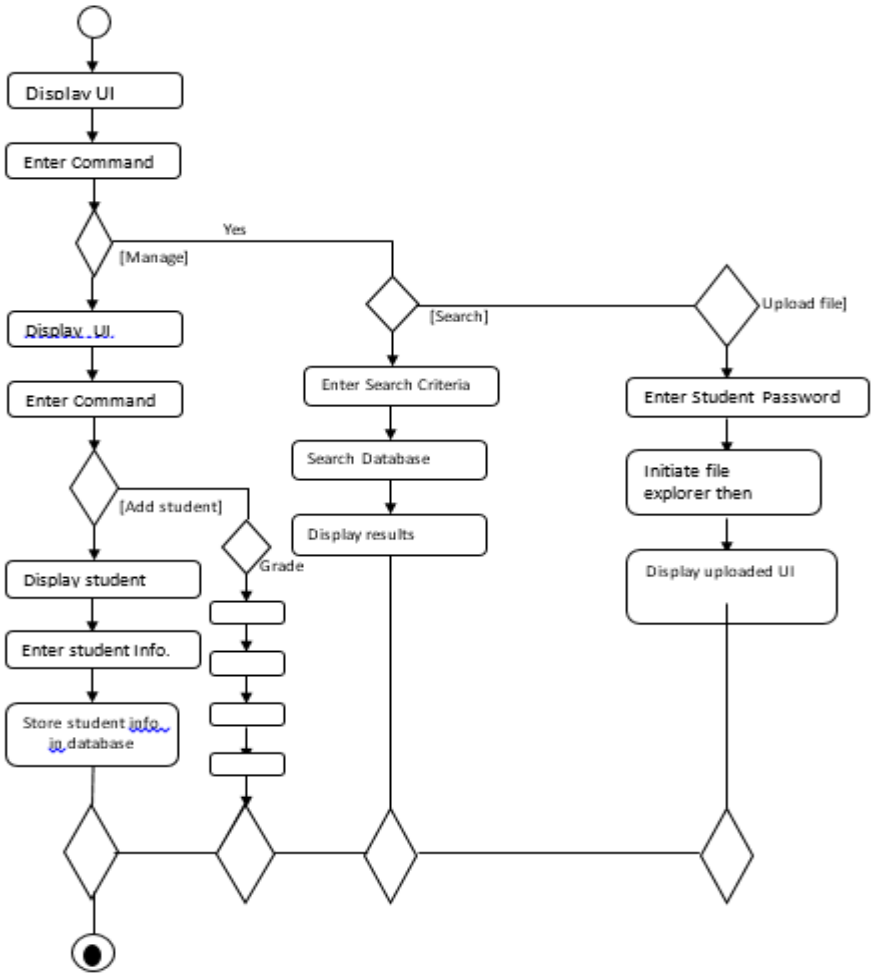

Fig. 3.2 Activity Diagram for the Proposed System

Activity diagrams are graphical representations of work flows of step wise activities and actor. In an activity diagram, the flow of execution is modeled as activity nodes connected by activity edges. As seen in figure 3.2, the activity diagram of the proposed system represents the sequence of activities that are involved in the operation of the system. The activities shown are those to be carry out by the user (recruitment manager).

3.1.3 FLOW CHART FOR THE PROPOSED SYSTEM

Flowcharts are employed to help visualize and document the processes in a system and help the viewer understand these processes. Fig. 3.3 shows the diagrammatic representation of the system in terms of the process operations.

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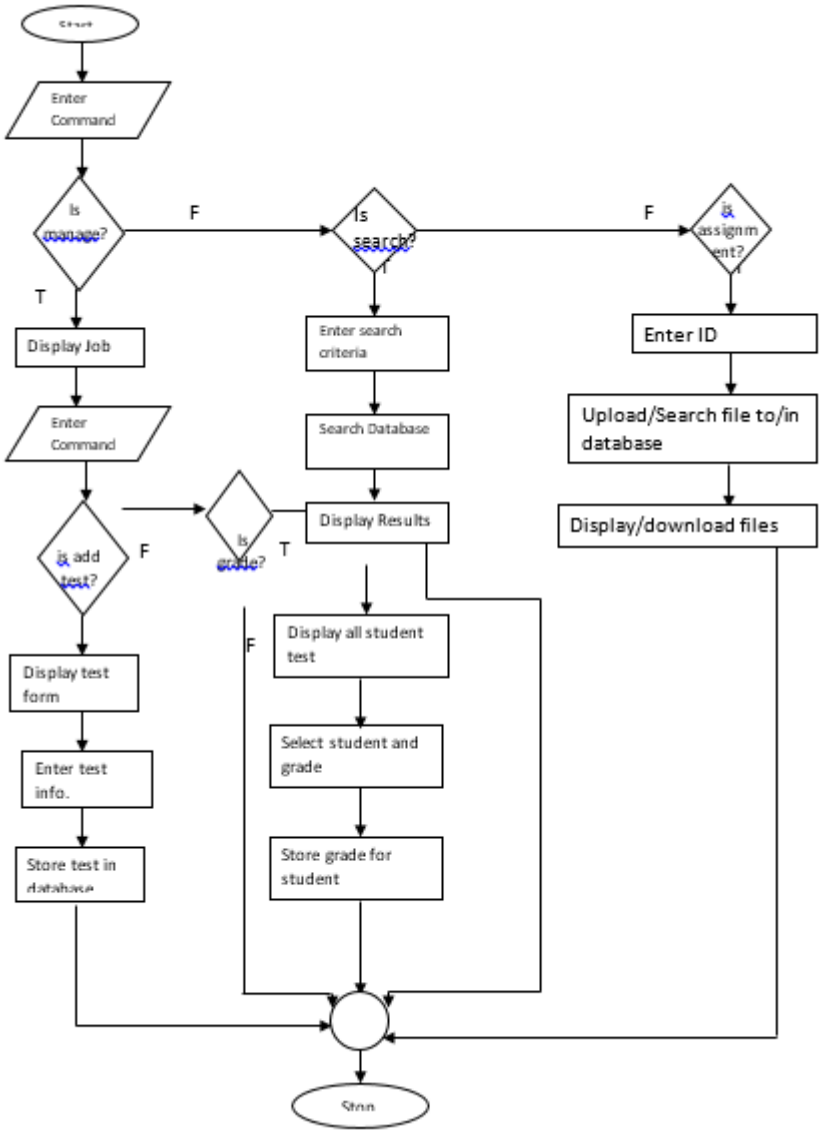

Fig. 3.3 Flowchart for the System

3.2 INTERFACE DESIGN

This section shows the aspect of the system design that defines the interfaces and data that satisfy specified requirements.

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LOGIN INTERFACE

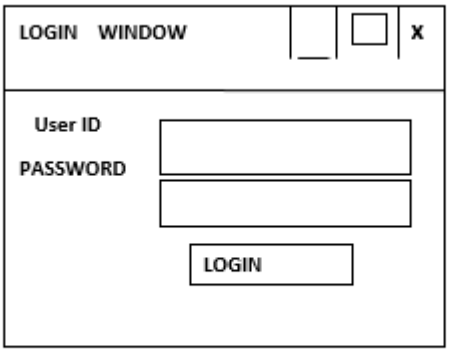

Fig 3.4 Log in Interface

This is the interface that allows student to add assignment to the system for the Tutor assess.

3.3 SEARCHWINDOW

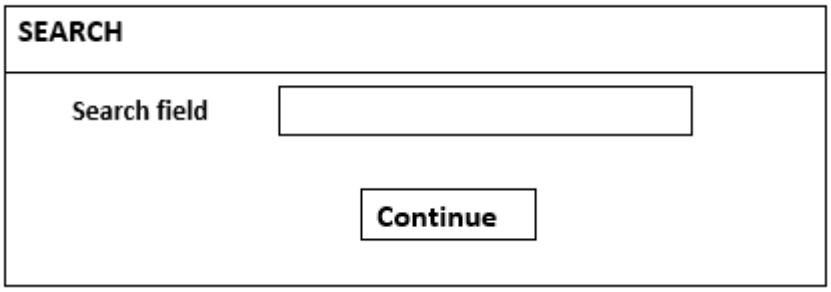

Figure 3.5: Search Interface

The Search interface application search process in all the window, where admin Tutor and student can query the database for result in respect to the page view.
The actual form contains more detailed information as seen in the application.

The Tableslisted below shows the design framework for the proposed System

Table 3.1: Student Personal Interface

NAME	SEX	DISTRICT	PARENT	OFFERTYPE	CLASS	STATUS	ACTION

Table 3.2: ASSIGNMENTTABLE

FIELD	DATA TYPE	DESCRIPTION
ID	Int (11)	User ID
FILE_NAME	Varchar (100)	File name
File_tile	Varchar (10o)	File Tile
Faculties_id	Varchar (100)	Faculty id
Lecturer_id	Varchar (100)	Lecturer id

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Table 3.3STUDENTENTRY

FIELD	DATA TYPE	DESCRIPTION
Id	Int(11)	Id
Student –no	Int(11)	Student number
Reg-no	Varchar(12)	Registration number
Academic-yr	Int(11)	Academic year
Yearost-id	Int(11)	Year of start id
Sem-id	Int(11)	Semester id
Date sent	Date	Date sent
Time sent	Time	Time sent
Status	Varchar(20)	Status

IV. IMPLEMENTATION PROCEDURE

This session focuses on the implementation of the system and the requirement. It discusses the features and choice of the programming language used for the implementation of the system in this research. Also discussed in this chapter is the system testing strategies. The target computer requirements are explained as well as the maintenance issues that should be considered.

The table shows a list of the software requirements for the proposed system to function.

Table 4.1: Propose Software requirements for the target system

Component	Requirement
Operating system	Windows 2000, XP, VISTA, 7, 10
PHP version	PHP 4.2.1 or later
Database Engine	MYSQL '5
Web Server	Apache web server
Browsers	Firefox, I.E, Opera

Table 4.2 List of the hardware requirements for the proposed system to function.

Component	Requirement
RAM	250MB or higher
Hard disk	10GB or higher
Processor	33Hz or higher

Table 4.2: Hardware requirements for the target system.

Based on the new system that is developed, several points has been carefully observed for further research in other to further improve our school system activities.

In summary of this project the researcher has read through school management system, which is quite large to be encapsulated in just one project work, so this project is reduced to focus on the online assignment submission management system as a whole.

The online assignment submission management system has been sub-divided into modules in other to carefully handle the processes involved in this system. The online assignment submission management system is sub-divided into (4) four major modules which are:

i. Description of the system
ii. Program Specification
iii. Interface Design
iv. Structure of the Database

This module is also broken down, so as to capture all the necessary segments that are required to make this project successful.

V. CONCLUSION

Before abstracting to the exploration area for any workforce or office, consider what a school's executive framework should look like. They should be accepted in the fields. It's vital to look at frameworks that have successfully been sent in testing climates, as well as any available assessment data.

In making an online task accommodation the board framework, out of school the executive's framework, it is fundamental that the task accommodation the board framework is planned with objective of permitting register understudy to login in with their substantial ID admittance to get to the task page and having the option to transfer his/her task in the framework.

We are presently in the lucky circumstance of falling data innovation costs,

improving PC proficiency joined with primer proof of school the executive's triumphs in asset helpless regions. The basic test is to make very much planned, viable, minimal effort frameworks by sharing assets, gaining from one another encounters and assessing our work.

VI. RECOMMENDATION

Only Nigerian tertiary institutions are included in this investigation. It does not include locally downloaded and saved adaptable forms programs for phones, tablets, and other mobile devices. Any School can use the work done for this exam.The accompanying suggestions are proposed: System reinforcement ought to be complete everyday if place on a focal worker on the school building. A cloud framework reinforcement is energetically suggested to ensure the safety of the framework in the event of a robbery or fire. To preserve the framework's integrity, any worker who is made available must sign an approved agreement.Users of the system should make a point of printing out payment exchanges for future reference. To make secret phrase hacking difficult, the framework administrator should create passwords with long characters. Because the secret key grants access to the system, users with specified privileges should ensure that it is kept safe.

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