FINAL YEAR STUDENT PROJECT ALLOCATION ARCHIVING AND MANAGEMENT SYSTEM

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Abstract: Student Projects are documents that student write after they research a particular subject in depth. In most institution, conventional method is been used for supervision and management of final year project. In conventional method, student search for three to five topics, submit topics to supervisor and wait for approval of one out of the submitted topics. The student is also required to write and submit proposal of the approved topic, defend the proposed topic and continue writing under the guidelines of project supervisor. These methods of allocating, archiving and managing project is time consuming, stressful, inconvenience, involves high cost of typing and printing document that will be submitted to supervisor. Hence the need for user friendly, effective, efficient and convenient system that will overcome aforementioned problems outlined earlier. This paper addresses the problem outlined earlier by developing a final year student project allocation, archiving and management system where supervisor and student can interact in real time, and can checkmate for approval and submission of project. The system is developed using Hypertext Preprocessor (PHP) programming language, ASP.NET to develop Graphical User Interface (GUI) and MySQL coupled with XAMPP for the database. The system is designed to run on windows operating system. Functionality of the system shows that it works satisfactorily. The system can be used in any higher institution to replace the manual method of supervising final year student. It will reduce challenges, energy and time required to monitor and manage final year student project.

Keywords: Project management system, project archiving, project allocation, supervisor

Introduction

Student Projects are documents that student write after they research a particular subject in depth. Projects are excellent opportunities in which student show creativity, invest and demonstrate their knowledge. Usually, student need appropriate guidelines throughout the project. Project writing is one of the major requirements of final year student in every tertiary institution which evaluate student's skills and experience acquired over the years, therefore student must write and complete final year project as core requirement to graduate. This project normally run for a period of one year or can be assigned at last semester of final year. Proper supervision is therefore is very useful throughout the project in order to ensure student is in the right track. In most institution, conventional method is been used for supervision and management of final year project. In conventional method, student search for three to five topics, submit topics to supervisor and wait for approval of one out of the submitted topics. Another method required supervisor to search and give topics to student based on their specialty. Though every student is required to write project, the procedure for allocating and managing student project differ in every institution. Each student may be required to search and submit numbers of project topics to supervisor for approval. The supervisor in turn goes through the submitted topics and selects one for the student.

The student is required to write and submit proposal of the approved topic, defend the proposed topic and continue writing under the guidelines of project supervisor. Project progress report booklet and dedicated file is assigned to each student for proper tracking. These methods of allocating, archiving and managing project is time consuming, stressful, inconvenience, involves high cost typing, and printing document that will be submitted to supervisor. Duplication of project topics by student is another major challenge where by two supervisors approve same topic for two or more student in same departments. Hence the need for user friendly, effective, efficient and convenient system that will overcome aforementioned problems outlined earlier. This paper addresses the problem outlined earlier such as time wastage, duplication of project topics, error prone, mishandling of write up, locating and retrieval of student file or stored information by developing a system where supervisor and student can interact in real time, and can checkmate for approval and submission of project.

Various literatures exist in final year student project and management system. Adewale *et al*. (2013) developed university portal for management of final year project. This portal manages student project but does not allocate project topics to student. Hongfu (2011) developed an online management system for undergraduate project using ASP.Net and SQL server. Clement and Bound (2013) developed final year project management system which connect supervisor and student before commencement of project allocation. The system can be used to submit and collect project. Bakar *et al*. (2011) developed final year project management system with user profile module, appointment module and project monitoring module but does not have allocation and file repository module. Chun-Hang *et al*, (2015) developed web based final year project management system that can select and allocate project, communicate and share resources to student. Imed (2011) developed student performance management system; student can submit and receive guidelines via the system but the system cannot allocate project topics to student. Mohammed *et al*. (2017) proposed final year project management system for supervision and monitoring of student project. Sanlet *et al*. (2017) developed automated system for managing final year project of student which monitor, control and coordinate student project but can only be used in a single department.

Materials and Method

Final year student project allocation and management system consists of five modules; the allocation module, the archiving module, the submission module, grading module and resource sharing module. The allocation module is responsible for automatic allocation of project topics to each student based on preferences academic records of the student, the submission module is used for sending of complain, proposal and other documents. The archiving module can only be used by supervisor to download submitted document from repository. The monitoring module is for tracking student progress and

performance, supervisor can also used the monitoring module to check and track each document submitted by student, schedule appointment with student, create task and edit task. The resource sharing module provides file sharing functionality among project group mates and their respective supervisor. The overall system is developed using Hypertext Preprocessor (PHP) programming language, ASP.NET to develop Graphical User Interface (GUI) and MySQL coupled with XAMPP for the database, the system is designed to run on windows operating system. The minimum hardware specification required to implement the system is Pentium IV with 2.5 MHz processor, 1GB RAM and 120 GB hard disk. The architecture of the system is shown in Fig. 1.

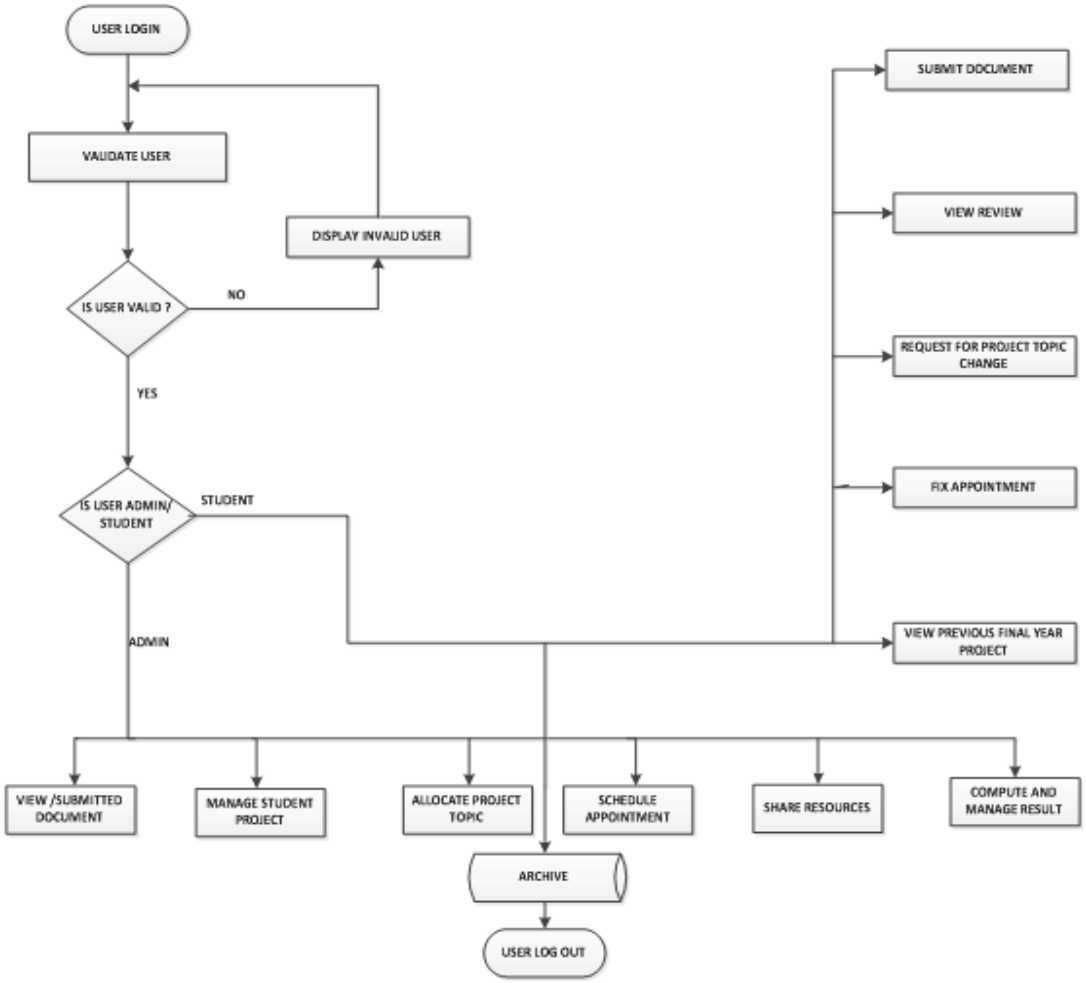

Fig. 1: Architecture of final year student project allocation archiving and management system

Figure 1 shows architecture of final year student project allocation archiving and management system, student/supervisor login to the system by using their user name and password. The system validate the users; if credentials are valid, access is been granted to the user else system display "invalid user" re-enter credentials. After granting access to the user, the user will need to select account type; that is to login as either supervisor (admin) or student. Student account consist of submit module, view module, change project topic module, schedule appointment module, view previous final year student project. The supervisor admin account consists of view submitted document module, manage student project, allocate project topic, schedule appointment, share resources and compute and manage result.

Result and Discussion

The final year student project allocation, archiving and management system is divided into two sections; the admin sections and student section. Fig. 2 shows the home page of the system. The supervisor login using his staff number as user name and a password for authentication and the student used Matriculation number as user name and a password for authentication.

Fig. 2: Project allocation, archiving and management system home page

Supervisor can allocate project topics to students, view project proposal, accept/reject proposed topic using the dashboard as shown in Fig. 3. Student can submit project, view project review from supervisor, request for a change in project topic, schedule appointment with supervisor, search and view previous final year student project and view guidelines for writing Project as shown in Figs. 4 and 5.

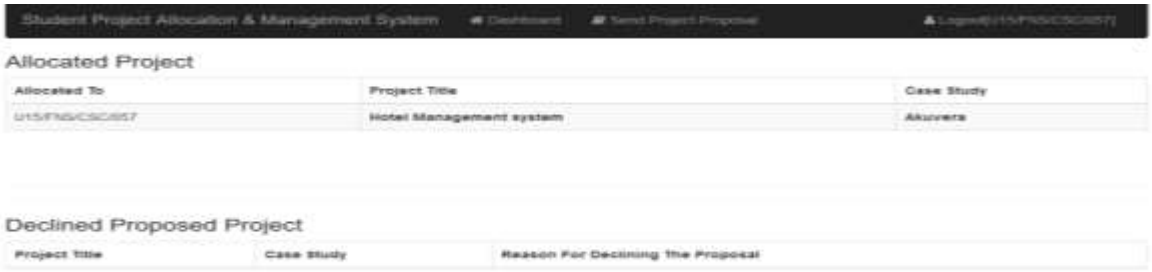

Fig. 3: Dash board displaying modules and sub modules of system

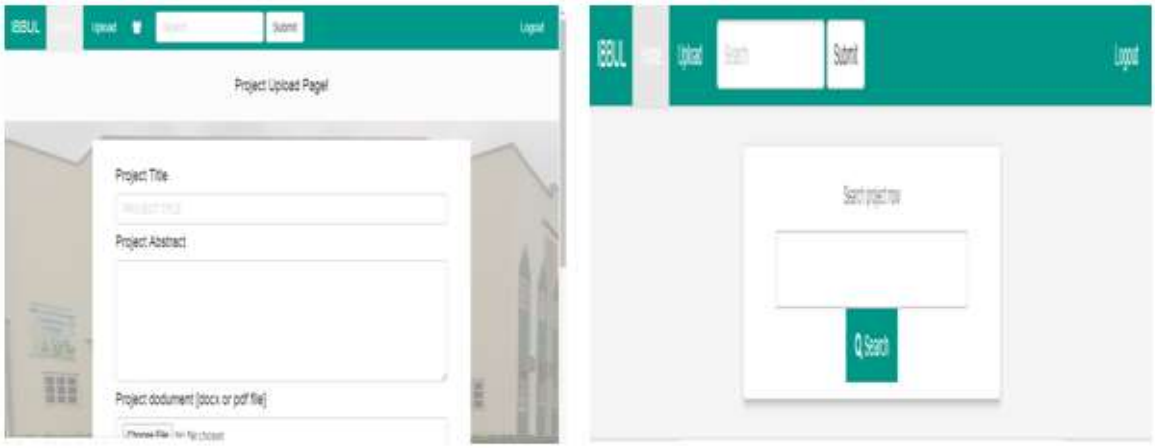

Fig 4: Submitting and viewing previous final year project using system

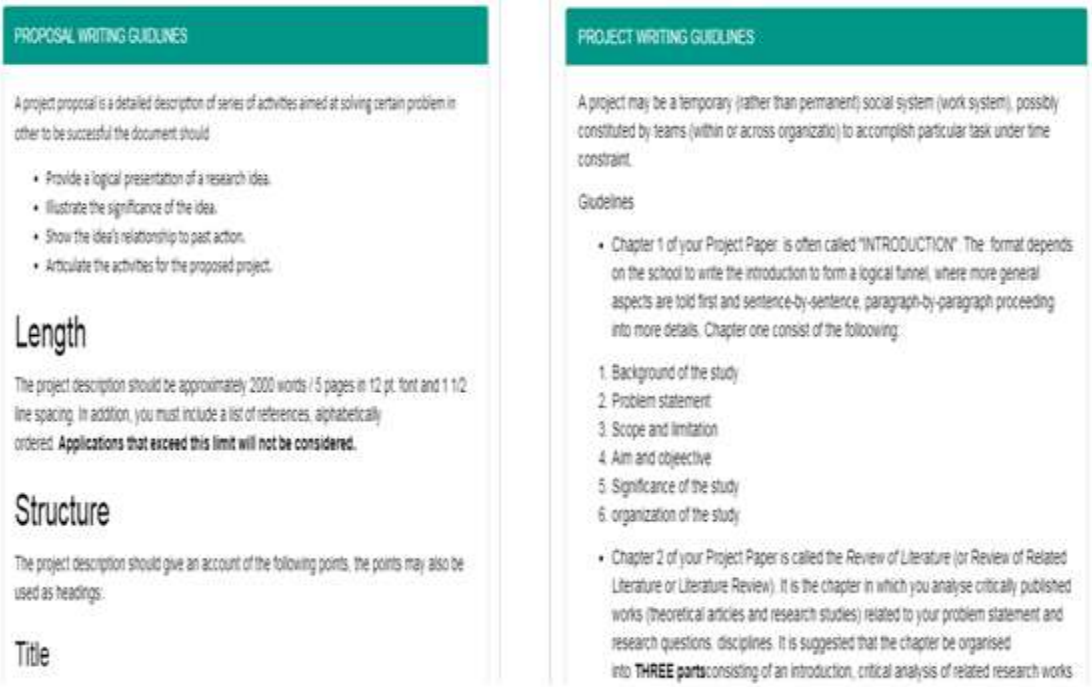

Fig. 5: Viewing guidelines for writing proposal and project using the system

Table 1: Users Perception on Manual Method and Developed System

User Perception	Manual Method	Developed System
1. Usability	11% of responded agreed the manual method is easy to use	89% of respondent agreed that the developed system is easy to use
2. Conveniences	5% of responded agreed the manual method is most convenient	95% of respondent agreed that the developed system is the most convenient

Performance evaluation

This work was compared with existing manual method of student project allocation and management system. The system was tested and compared with the manual method, evaluated for usability and inconveniences for efficient supervision and general management of student final year project through the perception of assessments of these qualities by the supervisor and the student of computer department, Ibrahim Badamasi Babangida University (IBBU) Lapai. Data were collected inform of questionnaire after responded used the manual method of project allocation and supervision and the developed project allocation, archiving and management system. A well structured questionnaire to assess the usability and conveniences factors. A total of 80 questionnaire were distributed to final year student and supervisors for assessing the manual method and the developed system for supervision and management using usability and conveniences to influence the assertion that the developed system have capacity to efficiently supervise and manage final year student project than the existing method. Two performance evaluation metrics; usability and conveniences were measured and the results are shown in Table 1 and Fig. 6.

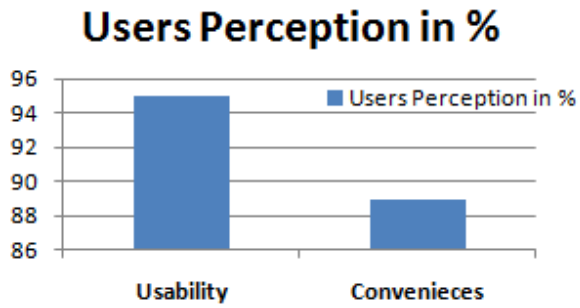

Fig. 6: Users perception on developed system

Findings from usability revealed that 89% of respondent agreed that the developed system is easy to use compared to the existing method as shown in Table 1 and Fig. 6. The findings of convenience assessments revealed that 95% agreed that the developed system offers convenience service to both student and supervisor compared to the existing method.

Conclusion

Student final year project allocation and management system has successful been developed and implemented for allocation, archiving and management of final year student project. The system can be used in any higher institution to replace the manual method of supervising final year student. It will reduce challenges, energy and time required to monitor and manage final year student project.

Conflict of Interest

Author has declared that there is no conflict of interest reported in this work.

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