



Students Project Management and Allocation System

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ABSTRACT

The online student project allocation is an emerging technology and a computer system has revolutionized the world thereby making tasks that seems difficult easy by the use of Internet. Students no longer need to overcrowd Supervisor's office because of project topic or research suggestion as this has been solved by this web application. Students can now at their comfort proceed with their project work online. What a welcoming development. This research work has emphasized the capabilities and reliabilities of a computer system i.e. It accuracy, speed and timeliness of information that it encompasses. The most important factor from this work is that information is essential and its availability cannot be washed away and the ability to move such information through established networks such as the Internet is the key benefit of the online students' project allocation. In addition, we have conducted a usability study via a website by deploying the web application on a domain for only few invited developers to test the application in order to understand usability issues and suggest future improvements.

Keywords: Students, Project, Management, Allocation, Systems, Information and Web Applications.

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1. INTRODUCTION

In many tertiary institutions in the country, students seek a project in a given field of specialty as part of the requirements to obtain their degree program. Usually, a project can be filled by at least one student, though in some cases a project is suitable for more than one student to work on simultaneously. To give students something of a choice, there should be as wide a range of available projects as possible, and in any case the total number of project places should not be less than the total number of students. Typically a lecturer will also offer a range of projects, but does not necessarily expect that all will be taken up.

In this paper we consider the ways of allocating student project in our various institutions.

In most cases, a graduate project is, according to Valter de Senna (May 2005), "one paper that a student works on for a large portion of the graduate program, especially in his or her final months of the program. This research requires a huge amount of research and may even be ground-breaking for a particular industry". While there are many definitions and uses for student project, the basic writing elements are the same. Therefore, students should always research a particular subject and write the academic document with an introduction, body, conclusion, resources, and appendices.

- David J. Abraham - March, 2007



1.1 Statement of Problem

The traditional way of allocating project to students in our higher institution need to be reconsidered since project/research writing is a sensitive aspect of student education in the higher institution. The traditional system create room for allocating a single topic to more than one student or group of students thereby creating inefficiency in the purpose of student project writing. This system made project writing look less like a class assignment which does not require an extra effort to complete rather an issue of copying and also many students can choose the same project without knowing that they doing the same project.

1.2 Aim and Objective

This research is aimed at developing a web-based system (stand-alone which could also be run under a Local Area Network) which manages the activity of “Student Project Management”. This system will manage the database and maintain a list of all student groups that have registered in the department along with their project topic. Allocation of project will be done by lecturers registered in this system through a list of topics in the department database organized by the department in order to guide against repetition of topics by two or more students.

2. LITERATURE REVIEW

Student project are long academic documents that students write after they research a particular subject in depth. Therefore, student project are usually assigned once per course, per semester, or only once as part of an academic program (David J. Abraham, 2007). Usually, the project will be graded by a supervisor, but all students in a particular grade might have to work on a project in order to pass a grade. In most cases, a graduate project is, according to Valter de Senna et al (2005), “one paper that a student works on for a large portion of the graduate program, especially in his or her final months of the program. This research requires a huge amount of research and may even be ground-breaking for a particular industry”. Students will then have to defend their project in front of a panel of judges that are familiar with the subject matter in the project. These panel members may ask the student questions related to his or her research or to the project itself. This sort of graduate project is also often called a graduate school dissertation. While there are many definitions and uses for student project, the basic writing elements are the same. Therefore, students should always research a particular subject and write the academic document with an introduction, body, conclusion, resources, and appendices (David J. Abraham, 2007).

3. METHODOLOGY

3.1 Choice of Programming language

Our application package for students’ project allocation is realized using P.H.P (Hypertext Preprocessor) as main scripting language, CSS (Cascading Style Sheet) to style the interface, MySQL server as database server, and Wamp as web server. The application can be accessed using any web browser.

3.2 Research layout

This research work is aimed at developing a web-based system (stand-alone which could also be run under a Local Area Network) which manages the activity of “Student Project Management”. This system will manage the database and maintain a list of all student groups that have registered in the department. Allocation of project will be done by lecturers registered in this system through a list of topics in the department database organized by the department board. We have three roles in this system, an Administrator, a Supervisor/Lecturer and a Student. An Administrator logs into this system, and can register a supervisor who belongs to the department. Students register in this system and get user ID (similar to a website like Yahoo). A student should register; provide his information (technologies familiar with, prior project experience etc.). This is saved in a database.



The department shortlist students for supervisors.

The Lecturer/Supervisor assigns project topics in his profile page to students/group under him/her

3.2.1 Facility for password changing

There is facility for changing the password for the student as well as the lecturer.

3.2.2 Notification sent to students

Notification is being sent to students or groups that are under him or her that a project topic has being assigned for them. The data entered by the student like name, matric number, phone number etc. should be validated appropriately. This feature will improve the robustness of the application; also this feature is a must as it prevents the incorrect data from been entered in the database.

3.3 Evaluation of Forms

The system design is based on three –tier architecture. The three –tier (layer) is a client –server architecture in which the user interface, registration process and data storage and data access are developed and maintained as independent modules or most often on separate platforms.

The three logical tiers are

- i. Presentation Tier – Dreamweaver, web forms, Master Pages, Images
- ii. Middle Tier – web module
- iii. Data Tier – Database.

3.4 System Flow Chart

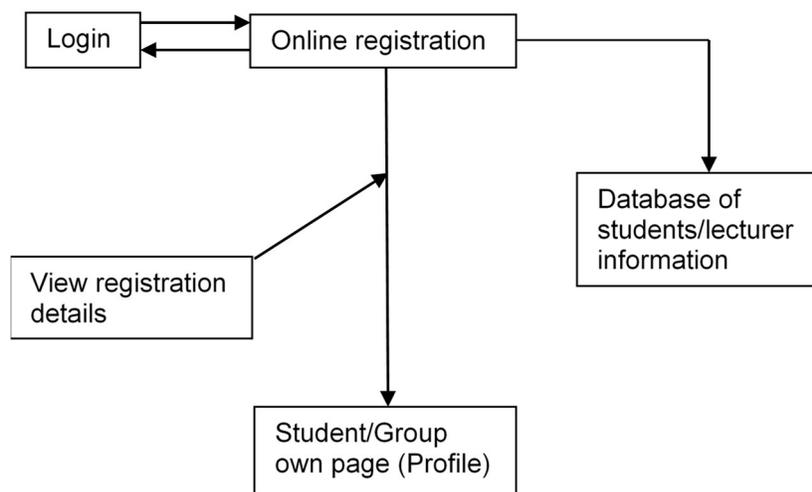


Fig. 1: System Flowchart



3.5 System Implementation

Implementation of the new system involves:

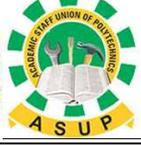
- (1) Training of staff
- (2) System testing
- (3) System change over
- (4) System review and maintenance

3.6 Database Table Structure

The screenshot shows the phpMyAdmin interface for a database named 'pms' on 'localhost'. The 'Structure' tab is active, displaying a table of database tables. The table has columns for Table, Action, Rows, Type, Collation, Size, and Overhead. The tables listed are: admin, adminguides, groups, guides, messages, projects, students, and supervisors. A summary row at the bottom indicates 8 tables with a total of 69 rows, InnoDB engine, and latin1_swedish_ci collation.

Table	Action	Rows	Type	Collation	Size	Overhead
<input type="checkbox"/> admin	Browse Structure Search Insert Empty Drop	~1	InnoDB	latin1_swedish_ci	32 KiB	-
<input type="checkbox"/> adminguides	Browse Structure Search Insert Empty Drop	~0	InnoDB	latin1_swedish_ci	16 KiB	-
<input type="checkbox"/> groups	Browse Structure Search Insert Empty Drop	~9	InnoDB	latin1_swedish_ci	16 KiB	-
<input type="checkbox"/> guides	Browse Structure Search Insert Empty Drop	~1	InnoDB	latin1_swedish_ci	16 KiB	-
<input type="checkbox"/> messages	Browse Structure Search Insert Empty Drop	~1	InnoDB	latin1_swedish_ci	16 KiB	-
<input type="checkbox"/> projects	Browse Structure Search Insert Empty Drop	~31	InnoDB	latin1_swedish_ci	32 KiB	-
<input type="checkbox"/> students	Browse Structure Search Insert Empty Drop	~19	InnoDB	latin1_swedish_ci	32 KiB	-
<input type="checkbox"/> supervisors	Browse Structure Search Insert Empty Drop	~8	InnoDB	latin1_swedish_ci	32 KiB	-
8 tables	Sum	69	InnoDB	latin1_swedish_ci	192 KiB	0 B

Below the table, there is a 'Check All' checkbox and a 'With selected:' dropdown menu. At the bottom, there is a 'Create table' section with input fields for 'Name:' and 'Number of columns:'.



3.7 System Implementation

Implementation of the new system involves:

- (1) Training of staff
- (2) System testing
- (3) System change over
- (4) System review and maintenance

4. DOCUMENTATION

The administrator controls the logging in process in such a way that unauthorized user do not log in, add new lecturer/supervisor to the list, update lecturer/supervisor's profile, determine if a student should be given project supervisor after students assessment, add and delete student or supervisor below requirement.

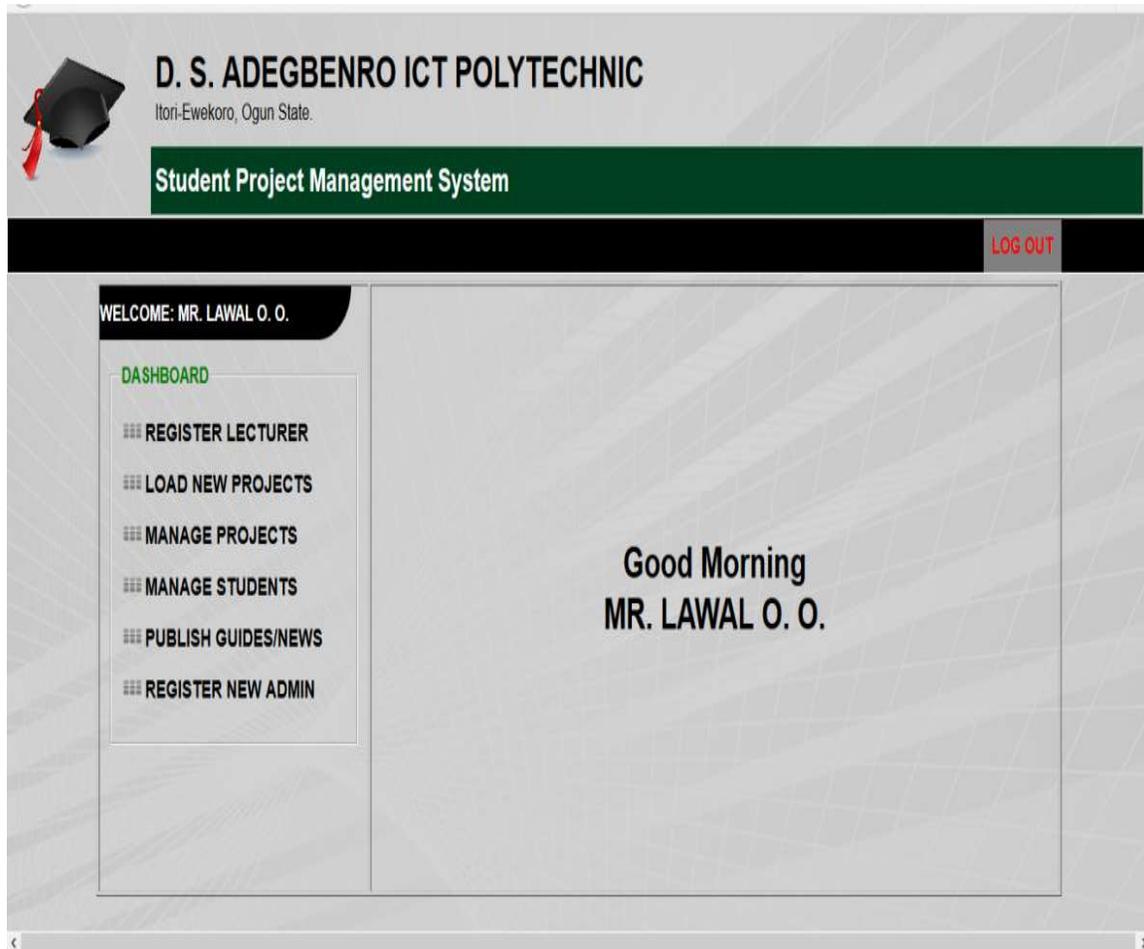


Fig. 2 Administrative Control Platform



Student Project Management System [S.P.M.S.]

Student Registration

SELECT LOGIN TYPE

Username/Phone/Matric Number

Password here...

LOGIN

YOUR FULL NAME HERE

MATRIC NO. HERE

DATE OF BIRTH : Sex/Gender:

Choose your Department Select Level

SELECT YOUR SUPERVISOR

Your Phone Number here Your Email Address here

PROFILE PICTURE: Browse... No file selected.

SPECIFY A STRONG PASSWORD

Fig 3: Login/Registration Platform

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Student Project Management System

LOG OUT

YOU ARE: MR LAWAL O.O

MY DASHBOARD

- PROJECT GUIDE/NOTICE
- CREATE GROUP
- ADD GROUP MEMBER
- ASSIGN TOPIC FOR GROUP
- ASSIGN INDIVIDUAL TOPIC
- GROUP/MEMBERS & TOPICS
- INDIVIDUAL & TOPICS
- VIEW MY STUDENTS
- SEND PERSONAL MESSAGE

Good Morning
MR LAWAL O.O

Fig 3: Supervisor Control Platform



[| EDIT PROFILE](#)
 [| PROJECTS ARCHIVE](#)
 [| PROJECT GUIDES](#)
 [| INBOX \(0\)](#)
 [LOGOUT](#)

SEARCH PROJECT NAME [SEARCH](#)

PAST PROJECTS & DETAILS

MICRPROCESSOR	DETAILS
ONLINE SCHOOL PAYMENT MACHINE	DETAILS
COMPUTERIZED PERSONNEL INFORMATION MANAGEMENT SYSTEM	DETAILS
CUMULATIVE GRADE POINT AVERAGE AUTOMATION	DETAILS
A COMPUTERIZED BIRTHRATE MONITORING INFORMATION SYSTEM	DETAILS
THE ANALYSIS AND DESIGN OF INFORMATION SECURITY SYSTEM	DETAILS
PERSONAL COMPUTER (PC) SYSTEM	DETAILS
SALES INVENTORY SYSTEM	DETAILS
BIRTH AND DEATH REGISTRATION SYSTEM	DETAILS
1KVA SOLAR POWERED UNINTERRUPTED POWER SUUPLY INVERTER SYSTEM FOR ELECTRONIC DEVICE	DETAILS

Fig 4: Project Archive

D. S. ADEGBENRO ICT POLYTECHNIC

Itori-Ewekoro, Ogun State.

Student Project Management System

< HOME
[| EDIT PROFILE](#)
[| PROJECTS ARCHIVE](#)
[| PROJECT GUIDES](#)
[| INBOX \(0\)](#)
[LOGOUT](#)

Welcome: NCS/13/EP/01159

:: My Profile ::

Name: ADEDIRAN MATTHEW

Matric: NCS/13/EP/01159

D.O.B.: SEPTEMBER 25

Sex: Male

Dept: Computer Science

Level: ND II

Phone: +234-8163149452

E-mail: mattex442@yahoo.com

Supervisor: MR LAWAL O O

[CHANGE PROFILE PICTURE](#) [EDIT PROFILE](#)

GENERAL NEWS FROM SUPERVISOR

:: PROJECT DETAILS ::

Fig. 5: Student Profile

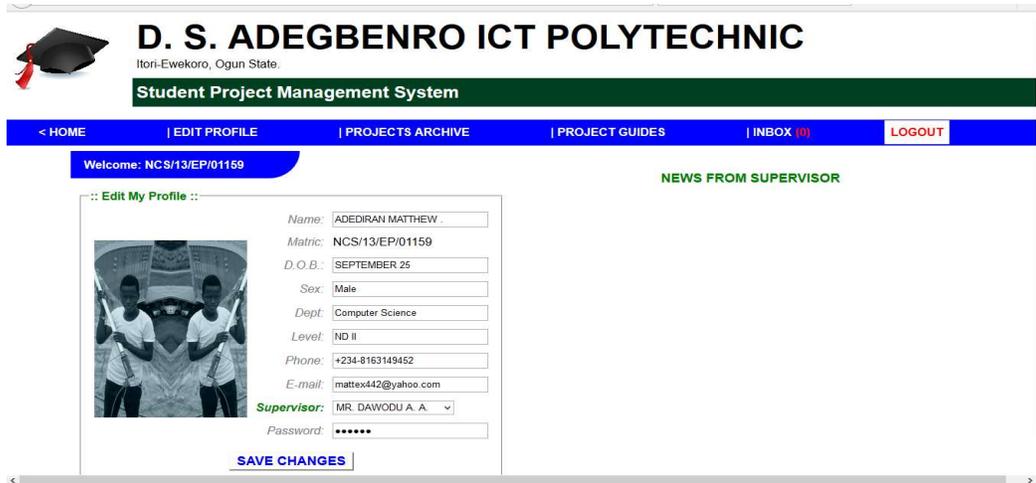


Fig. 6: Edit Student Profile

5. CONCLUSION

The traditional way of allocating project is associated with so many problems ranging from overcrowding of student on one project topic to departmental record of history of project topic. However, we have been able to research and develop measures through which this shortcoming can be overcome with fewer problems.

Therefore, we have been able to develop a solution, if this system is adopted this problem can be addressed. The development of a web application that can administer student project should be a welcoming development in our institution of various learning.

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