

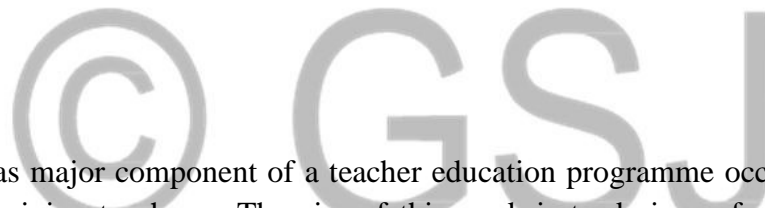


**IMPLEMENTING STUDENT TEACHING PRACTICE PLACEMENT INFORMATION
MANAGEMENT SYSTEM: FOR COLLEGES AND INSTITUTES OF EDUCATION IN
NIGERIA**

By

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Abstract

Teaching Practice as major component of a teacher education programme occupies a key position in the process of training teachers. The aim of this work is to design a framework for Student Teaching Information System, which will serve as a tool for teacher training institution in managing information related to teaching practice exercise. The objective is to develop a comprehensive system that will keep, manage and maintain records of both student-teachers and teacher-supervisors. In addition, the system is designed to automate the posting of supervisors for student teacher supervision, automate the posting of student teachers to the schools they intend to undergo their teaching practice exercise, as well, compute their results. A centralized database for adding users to the system was developed using MYSQL database engine. The Object Oriented Analysis and Design method was used to achieve a system that is broken down into modules for future modification.

Introduction

Student teaching practice is an important stage in the professional development of teachers. It provides an opportunity for pre-service teachers to apply the knowledge and theories learned on campus to the real classroom. Student teaching has been called the most challenging, rewarding, and critical stage of teacher education (Goethals & Howard, 2000) and it is generally agreed that the student teaching experience is key for teacher preparation programs (Guyton & McIntyre, 1990).

The importance of teaching practice to pre-service students cannot be overemphasized. Teaching Practice plays a significant role in the educational development efforts and learning in teacher training institutions. It opens up horizons for the student-teacher in both creation and exchange of knowledge and the promotion of creativity. It is a core subject in education and compulsory for every student to undergo the exercise during the course of his/her study. Hence, the need for Colleges of Education and sister institutions to have a comprehensive and befitting record management system in order to have proper means of record keeping and to have total control of the entire exercise.

Background of the study

The activity or exercise of conducting student teaching practice solely relies on Curriculum Department and the College Management. The process starts by students taking a Micro-teaching course; i.e. Micro-teaching theory and Micro-teaching practicum. The students are expected to pass the course as this will prepare them for teaching practice exercise. At the completion of micro teaching course, the students will be issued a form called School-Based Form. This will enable them indicate choice of place of teaching practice exercise. The Micro-teaching result and the School-Based Form are used by the Department to post the student-teachers to various primaries and secondary schools for teaching practice exercise; the posting is subject to change, in an event of rejection of a student-teacher. Staff's (lecturers) details are submitted to Teaching Practice Office from the office of the Dean of schools in the College to ensure eligibility and to be sure that qualified staff are sent out for supervision. Supervision allowances and sponsorship is computed based on the rank and grade of staff. Each staff is assigned certain number of students, usually not less than four (4), although it could be more or less.

A very notable problem that has inhibited effective Student Teaching Practices exercise over the years in student-teacher training institutions in Nigeria is the lack of effective administration and planning. Student teaching practice as a continuous and cyclic process is faced with problems which this project aims to harness. These problems are believed to affect both student-teachers and supervising staff. Presently, the entire process is full of problems such as:

1. Improper management of Student-Teacher records and this is because there is no central database that will manage the records generated from the whole exercise.
2. There is problem of double posting in posting of students to various schools for teaching practice; that is, sometimes a student could be posted to more than one school for teaching practice.

3. In the present system, students are allowed to make choice of school they intend to undergo teaching practice, which in most cases they tend to choose schools where they will do what they like.

The best Information Systems result from a design process that includes in-depth discussion of what information is needed, by whom, what decisions need to be made, and when this information is needed. A strategic information system is one that goes beyond merely collecting data; it is aligned with the goals of an organization and is designed to assist the organization in meeting its goals by improving system performance, (Oladimeji, 2015), and that is what this work seek to achieve.

Analysis of the New System (Proposed System)

The main goal of this system is to develop an automated information system for the process of student teaching practice. The students who have passed micro-teaching subject will login remotely and fill a form (School-based Form), where, the intending student teachers will indicate their school of interest. A comprehensive list of student teachers who have passed micro-teaching already exists in a database in Teaching Practice Office. This will serve as a control so that only eligible students will participate.

A list of postings of the student teacher is generated automatically. The minimum number of student teachers to be posted to a school is four (4) and the maximum is twenty. Special requests for some subject teachers made by some schools are also considered and in that case student teachers who could not be accommodated by other schools in the same town could be posted to such schools. The detailed and summary of student-teacher assessment forms are remotely completed by the supervisors and the grading of the student teacher is done after the cycles of the supervision are completed.

The new system posts a supervisor to a school in at least four or five schools. No supervisor will be allowed to supervise a student teacher more than once in the same school. Each supervisor is attached the names of students to be supervised and the maximum number of students are five (5). The record of all the eligible staff is contained in the database, which is subject to update as the records of staff may change due to promotion, retire or death. Object oriented design methodology is employed to achieve an information system for student teaching practice. Therefore, functional requirements analysis and description are presented below.

Functional Requirement

The functional requirement for this system is categorized in two: Administrator module and Users module:

Admin Module

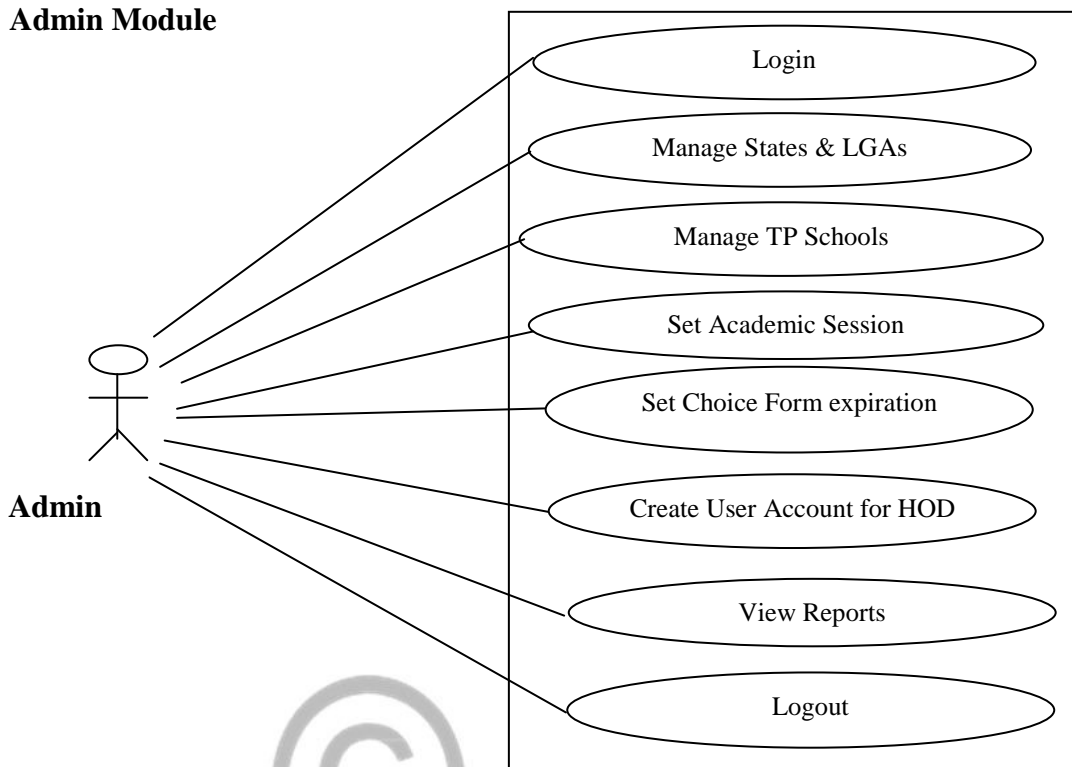


Figure 1: Admin Module Use Case Diagram

Table 1 –Actor Description for Admin

Actor	Description
User:	The system administrator is the overall user of the system and is responsible for creating new user(s), deleting user(s), generating reports, view lists of staff and students, etc.

Table 2 – Admin Use Case Description

Use Case	Description
Login	The administrator can login and perform his or her roles
Manage States and LGAs	The administrator can add states, add LGAs within which the students can do their TP and if need be he/she can update.
Schools & Departments	The administrator can add school/faculties and departments under each school/faculty. The administrator can also update when the need arise.
TP Schools	The administrator can add schoolname, town/LGA which the school is

located, SchoolAddress and contact number.

Academic Session The administrator can set the academic session within which the TP will take place.

Choice Form Expiration The administrator sets the date and time within which the intending student teachers will validate, create account, login and make choice of town/LGA. Here, the admin will also set maximum number of students to be posted to a school for TP as well as set maximum number of students to be assigned to a supervisor.

Create User Account The admin creates user account for HODs to enable them login and perform their roles.

Upload Micro-teaching result The admin will upload the results of micro teaching course to qualify students to go for TP.

View Reports The administrator can generate and view reports on students and supervisor posting, and also view TP results.

Logout The administrator may wish to logout of the system.



Main Menu of the New System

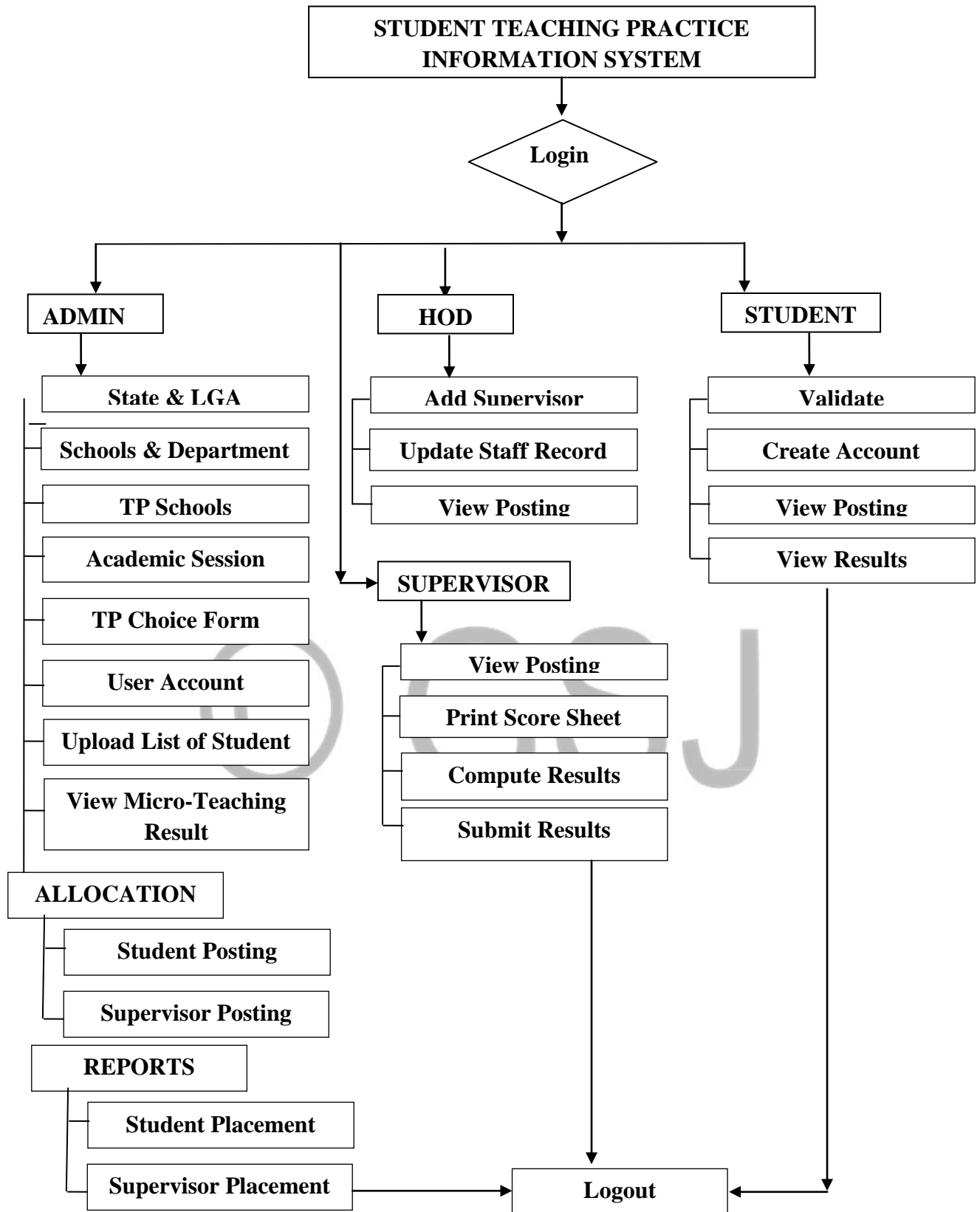


Figure 2: Main Menu of the New System

Figure 2 above shows the main menu of the new system. The data required for the functioning of the system is sourced from the system users, which basically are the system administrator, Heads of the Departments, Supervisors and Student-Teachers. Each of these users are able to login remotely

and perform activities such as adding record, editing, updating and view reports of some processing. The records added are saved in the system's database data store.

The Submenus/Subsystems

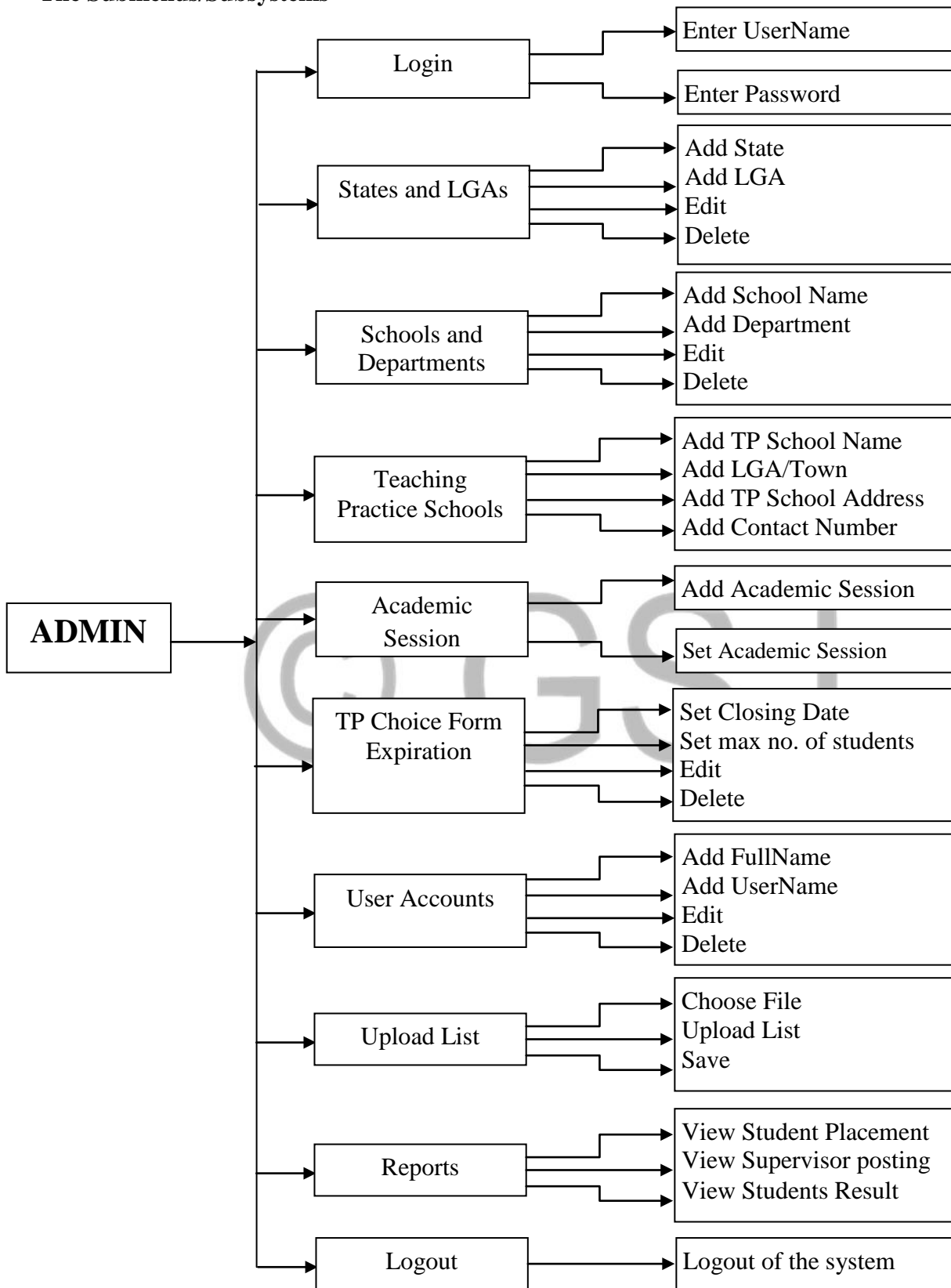


Figure 3: Submenu for Admin

Figure 3 above shows a clear description of submenus for the administrator. Here, the system administrator is able to login using a user name and a password, after which menus are presented for the user. The User is able to add states and local governments as well edit and delete when the need arises. The User can add Schools or Faculties and Departments; where necessary, the user is free to edit or delete. Other entities that the Admin could add are names and addresses of schools that student-teachers will undergo their internship. It is also the responsibility of the Admin to set the year of the academic session as well set expiration date of the student choice form; this is done such that after the date expires no student will have access to the form. Other users of this system must have accounts before they are able to use the system and these accounts are created by the Administrator. The Admin uploads and publishes the result of the microteaching which passing the course is criteria for a student to be qualified for teaching practice. Lastly, the admin can view reports such as student placement, supervisor posting and students' cumulative result.

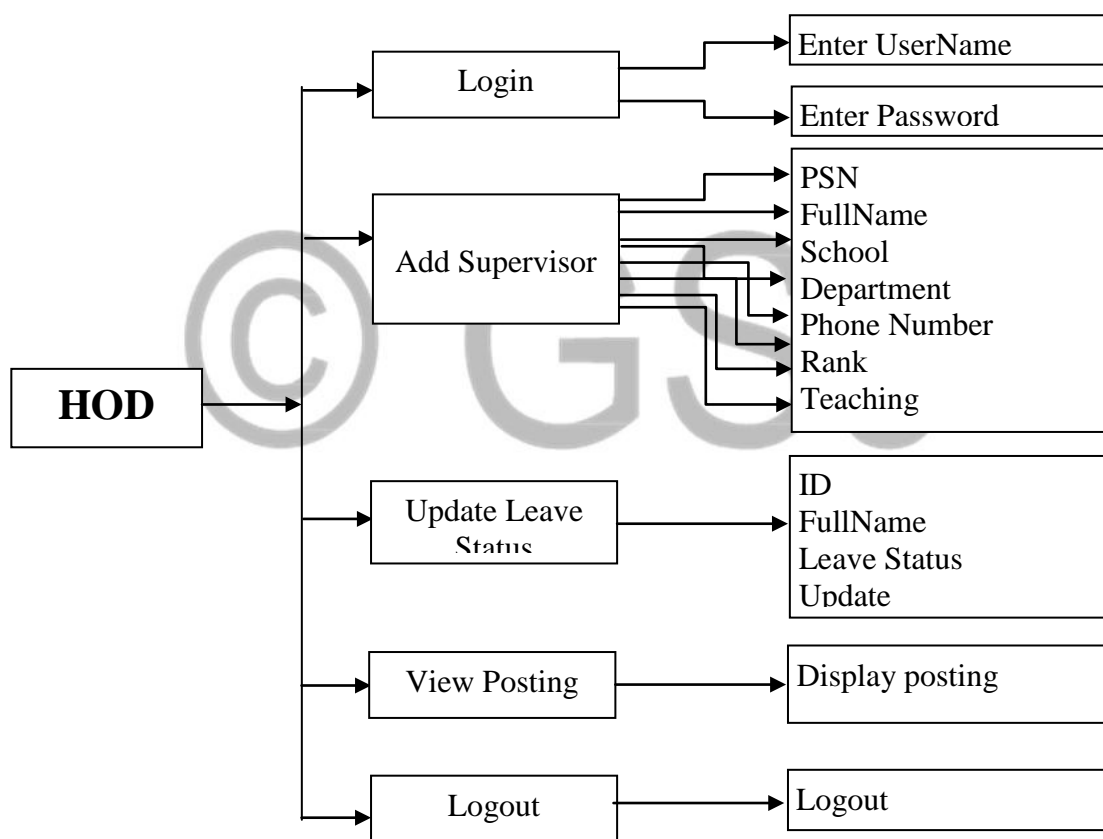


Figure 4: Submenus for HOD

HOD is another user of this system and figure 4 gives a clear picture of submenus at his or her disposal. The User is able to login to the system after his account is created by the Admin. The User is able to add supervisors from his department indicating their eligibility through teaching qualification and leave status. The User can view postings and logout of the system.

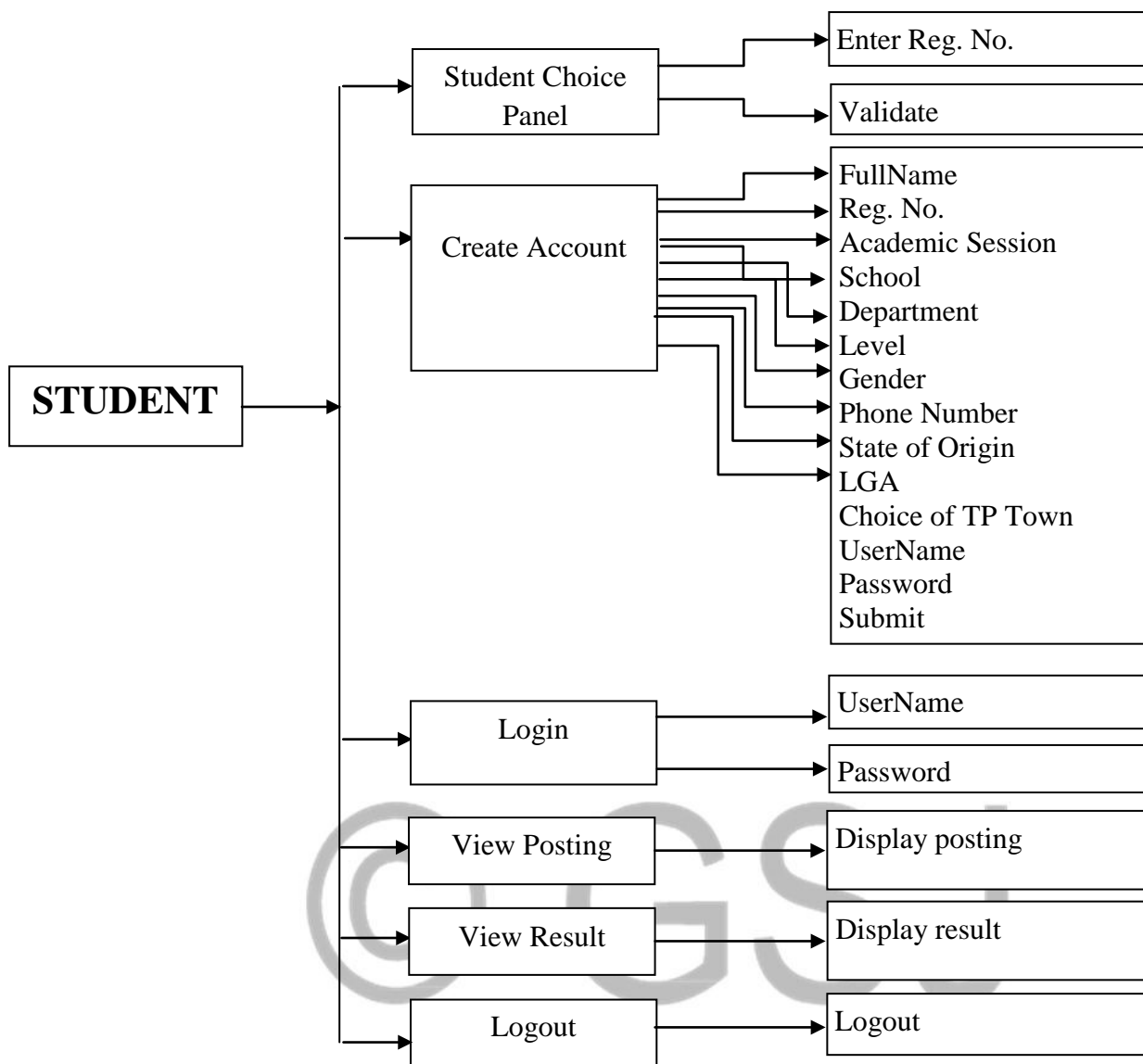


Figure 5: Submenus for Student

The students are part of the Users of this system. Figure 5 explains the first thing the student does is to validate himself or herself to be sure of his/her eligibility, after which the students add their records including a UserName and Password to enable them login to the system as can be seen in Figure 5. At the instance of login, the User is able to view where he or she is posted to as well view their cumulative result after the teaching practice exercise. Finally, the User may wish to logout.

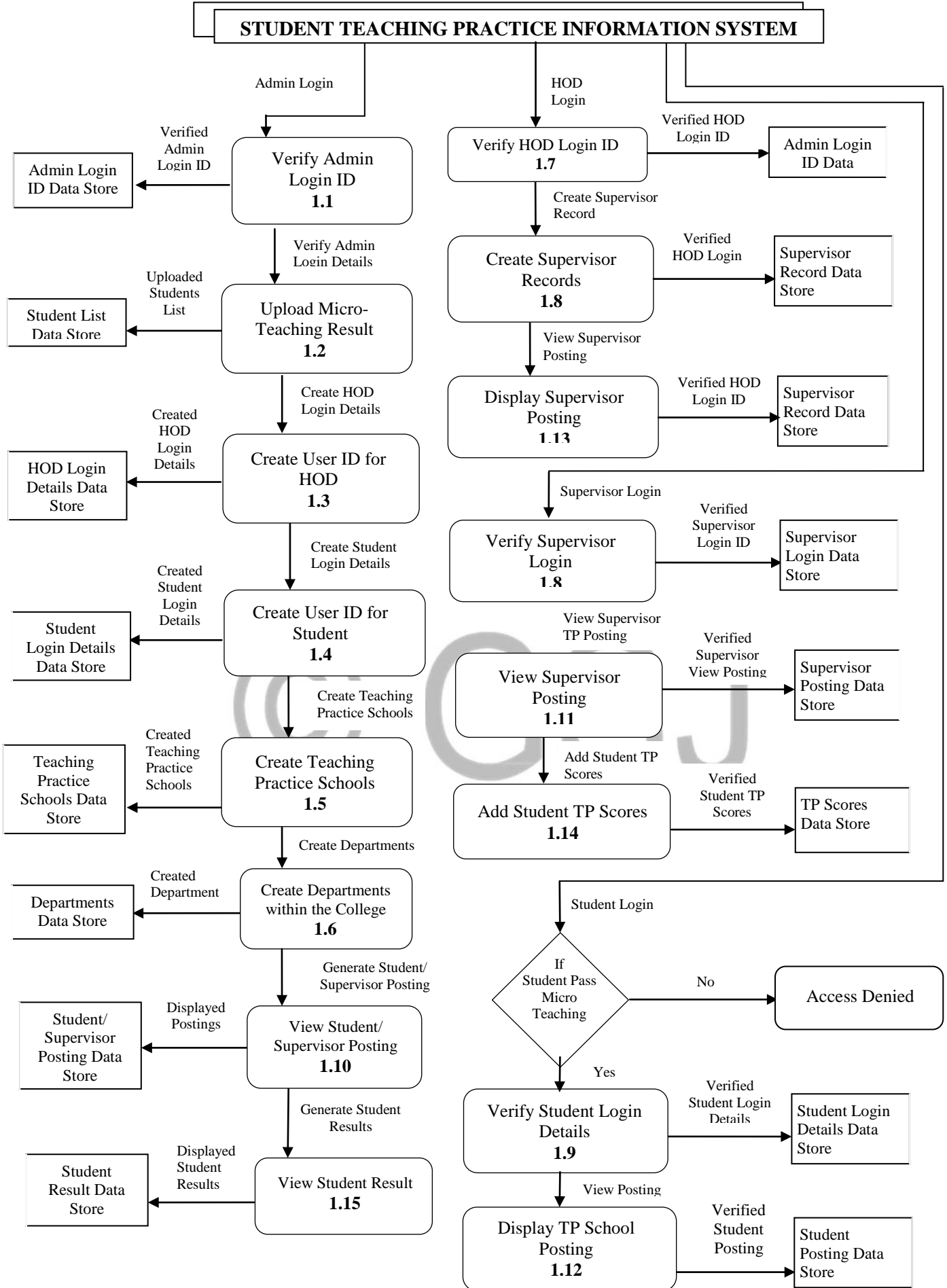


Figure 6: Data Flow Diagram of the Proposed System

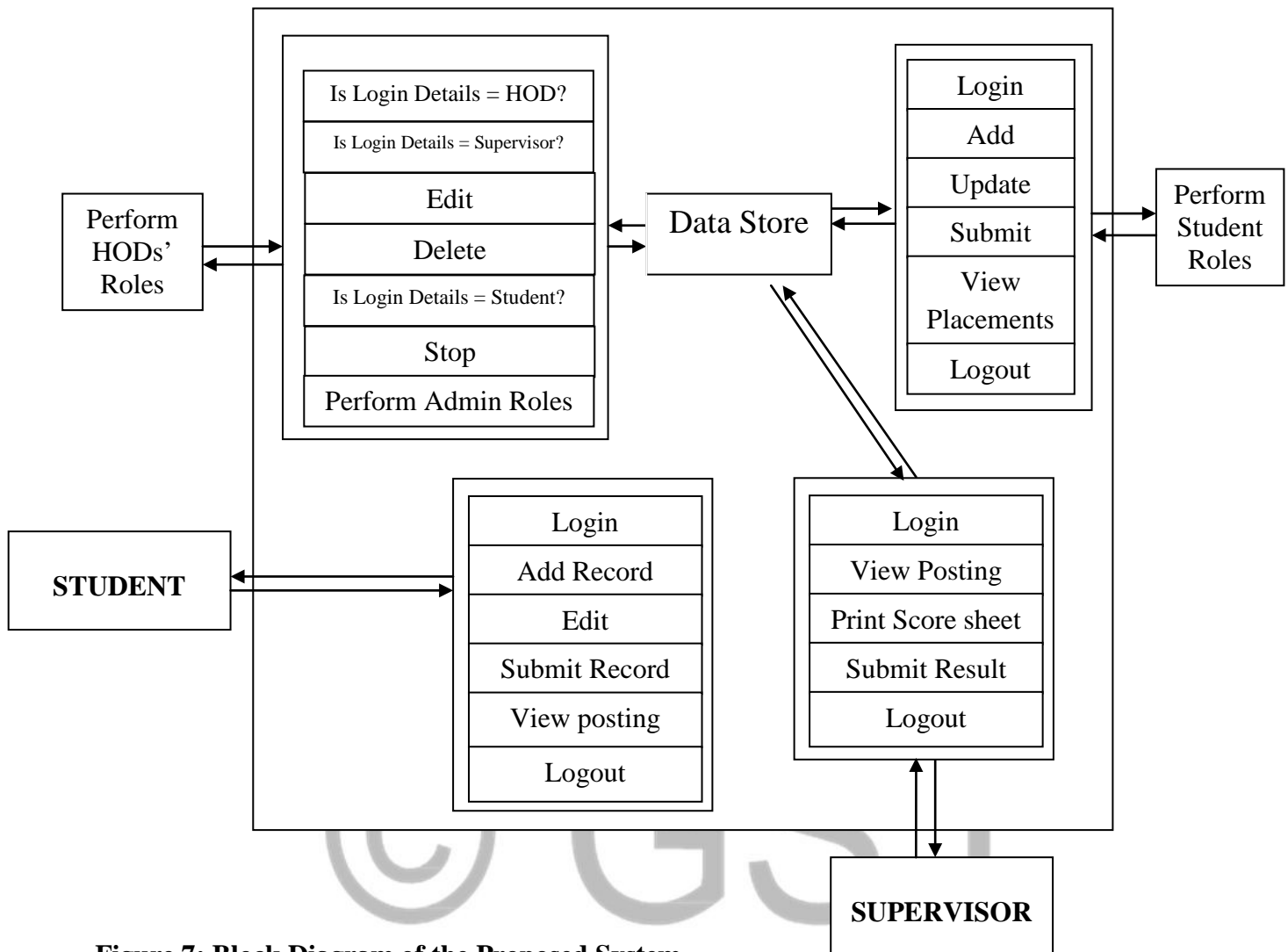


Figure 7: Block Diagram of the Proposed System

Objectives of the Design

The design phase is very crucial and must be in compliance with the stated objectives of the study, (Isaac, Onyesolu and Amana, 2018) the main objective of the design is to design and implement a strategic student teaching practice information system for Colleges of Education. Other objectives of the design are to:

1. Design a system that will properly manage Student-Teacher records via a central database that will manage the records generated from the whole student teaching practice exercise.
2. Implement a system that tackle the problem of repetitive posting of students to various schools for teaching practice; as in the existing system sometimes a student could be posted to two or more school for teaching practice.
3. Implement a system that will eliminate an irregularity in posting of lecturers for supervision of Student-Teachers; sometimes supervisors are posted to schools where student-teachers are not even posted to.

4. Ease in traceability of the student teacher results as some supervisors may fail to return the assessment sheets and this could cause problems of computation of students' results after supervision. The proposed system allows supervisors to login remotely at their comfort and submit the results
5. Develop an application that will keep, manage and maintain records of both student-teachers and teacher-supervisors; as well as administrative records.
6. Provide a framework for an equal distribution of student-teacher to supervising staff and prevention of manipulation in posting.

Conclusion

Student Teaching Practice for many years is part and parcel of teacher training and no one is qualified to teach without passing through this rigorous exercise. Irregularities in posting of student-teachers/supervisors and convenience are some of the factors that affect student teaching practice process in teacher training institutions like Colleges of Education. It is also a clear fact that business organizations and academic institutions do a lot to achieve speed, accuracy, convenience and security in managing records and information. This research work designed and implemented an enhanced student teaching practice information system to manage records of student teachers and supervisors, giving each user access to the system remotely and at convenience. With this, the problems of administration and planning are reduced.

Suggestions for further Research

The researcher suggests further research into other aspects of this project. Further research may include alerting the student-teachers and supervisors through SMS or e-mail about the TP posting so that they can easily login to the system to check where they are posted. A feedback mechanism could be incorporated into the system so that the student can use it to notify the Teaching Practice Office about he or she is properly supervised. Usually, the supervisors are given NATA (Night and Travelling Allowance), further research may include computation of supervisors' NATA and if possible crediting each to his bank account.

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