**WEB-BASED STUDENT-TO-SUPERVISOR ALLOCATION AND ASSESSMENT SYSTEM**

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**CHAPTER ONE**

**Introduction**

This chapter goes through the project description as well as some background information. Furthermore, this chapter follows the problem description of the project to offer a clear knowledge of the project's scope and objectives. This chapter will act as a guideline for all later stages of development.

**1.1 Background of The Study**

As a result of technological advancements and the rapid pace of globalization, higher education institutions are now either partially or entirely involved in an online environment. The recent expansion of computer networks, specifically the World Wide Web (WWW), has enabled individuals to communicate, socialize, and interact via the internet.

Completing a final year project is part of the criteria required to graduate as a higher national degree holder from a polytechnic; it is difficult since students will apply their skills to construct real-world transforming applications.

Allocation of students to supervisors, assessment procedures, access to resources, assistance and supervision, and overall project management are all important factors that influence students' learning experiences throughout their final year project. Hussain, et al, 2020, as cited in Teo, 1998

An assessment may be an extremely important component in the teaching and learning environment since it should progress knowledge as well as quantify or verify results. E-assessment is the use of technology to organize and provide assessments that might be diagnostic, summative, or formative in nature. Huda, S. & Siddiq, T. (2020).

Since the inception of the Computer Science department, assigning students to supervisors and assessing student projects and seminars is done manually. Assessment of students is done in two ways, the student supervisor would assess the student as well as the panel which would access the student twice; namely the seminar and final defense assessment. This is done to ensure that the student carries out their project themselves or participated, which will then be used to grade them. The assessment sheet has to be printed in copies by the student depending on the number of assessors in that particular venue, similarly, with assigning students to supervisors, considering the number of students is not easy to assign and group students probably using excel, it is monotonous and quite inefficient.

This approach has been taken repeatedly over the years and causes a lot of paperwork with the possibility of poor documentation. This study will develop a student-to-supervisor allocation and assessment system that will be used by the department in assessing student project and seminar defense, thereby increasing work efficiency among project coordinators and defense panelists.

The system uses an algorithm to automatically assign students to a supervisor, which creates an avenue where students can easily find the supervisor's contact information for ease of communication.

**1.2 Statement of The Problem**

It has been a mere saying that students are to be allocated to supervisor on time but the reverse is the case due to the series of monotonous activities involved in the process, not enough time is given to the student in completing the project, even when allocated student find it difficult in reaching out to the supervisors, a student would deliberately refuse to come for the defense until the last day increasing workload for the assessors. A lot of paperwork is involved in assessing students both in the seminar and project defense, which if not well documented may lead to incorrect grade input for that particular student, the highlighted problems jogged my interest to embark on the project.

**1.3 Aim and Objectives of the Study**

To develop a student-to-supervisor allocation and assessment system for the computer science department at Kaduna polytechnic.

**Objectives**

The objectives of this research work are as follows:

1. Student and supervisor data sets will be extracted from the department depending on the student that qualified for that year’s project as both the student and supervisors are not to perform registration on the site. The registration is automated
2. Django which is a high-level python web framework will be employed in the backend development, Modern technologies like HTML, CSS, and JavaScript will be employed in front-end development, and open-source relational database; MySQL will be employed as the database technology.

**1.4 Scope of the Study**

This research work is centered on the development of an algorithm for assigning students to supervisors and assessment of student seminars and project defense, as well as the development of a user-friendly, web-based interface to serve its purpose and implementation of the system and evaluation of its effectiveness. It will not cover the overall functionality of a project management system, including submitting project topics for approval and others.

**1.5 Limitations of the Study**

This study's scope has been constrained by several core issues, including:

**Time** - The researcher's everyday busy academic pursuits limited the time allotted for research for this study.

**Access to literature** – Access to some material was restricted, although the available material was optimized.

**Finance** – Some material that would have facilitated the research was restricted to payment before access which prevented the researcher to have an in-depth study and analysis of the subject matter.

**1.6 Significance of Study**

This study would increase the drive for improvement in such a way that it will provide an avenue for other parts of a project management system to be included. It is carried out to eliminate time wastage in allocating students to their various supervisors, thereby providing a secure way for the higher institution of learning to create and manage the data related to student-supervisor relationships, as well as providing a platform where assessors can assess student project and seminar defense and manage the data efficiently.

**1.7 Project Organization**

The project is divided into five chapters. The outlines are presented below:

**Chapter One: Introduction**

Chapter one introduces this project work, the background of the study, the statement of the problem, the aim and objectives, the scope of the study, limitations of the study, the significance of the study, project organization, and the definition of terms.

**Chapter Two: Literature review**

This chapter focuses on the literature review, and the contributions of other scholars on the subject matter being discussed.

**Chapter Three: Methodology and Design**

This chapter is concerned with the presentation of the results of system analysis and design. It presents the research methodology used in the development of the system to facilitate an understanding and effective future implementation of the system.

**Chapter Four: System Implementation Evaluation**

This chapter describes the system implementation and documentation, analysis of modules, and system requirements for implementation.

**Chapter Five: Summary, Conclusion, and** **Recommendation**

The chapter provides a summary of major findings, conclusions, and recommendations based on the study conducted.

**1.8 Definition of Terms**

1. **Project:** A project is a collection of activities that must be accomplished over a set period while keeping cost and other constraints in mind to achieve a specified conclusion or objective.
2. **Project Allocation**: this is the process of assigning a specific project to a student and a supervisor. The supervisor will be responsible for providing guidance, feedback, and support to the student throughout the project and will also be responsible for assessing the student's work.
3. **Project Assessment**: this is a process of evaluating a student's work on a project over some time. It involves assessing the quality of the project, its progress, and the student's understanding of the project's scope.
4. **Algorithm**: An algorithm is a set of instructions or steps used to solve a problem or accomplish a task. Algorithms are used in computer programming to describe a set of operations that need to be performed for a computer to complete a certain task.
5. **Django**: Django is an open-source web framework written in Python. It is designed to help developers create complex, database-driven websites with minimal coding.
6. **System**: A system is a set of elements or components that are organized for a common purpose. It can refer to a set of components that interact to form a complex whole, or to a set of procedures or rules that are followed to achieve a specific goal.
7. **Database**: A database is a system intended to easily organize, store, and retrieve large amounts of data. It consists of an organized collection of data for one or more uses, typically in digital form.