



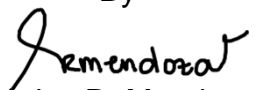
SELINUS UNIVERSITY

OF SCIENCES AND LITERATURE

Online Faculty Monitoring and Evaluation System

I do hereby attest that I am the sole author of this Project / Thesis and that its contents are only the result of the readings and research I have done.

By


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A THESIS

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ABSTRACT

Description of the Study

The school is one of the fields that are embracing technology to improve education, facilities, and systems on campus. Unfortunately, not all schools today are still equipped with the necessary technology to meet their needs. They are still tallying the results of faculty evaluations manually, which is time-consuming and frustrating for school personnel. Teacher evaluation is widely regarded as the most effective tool for improving the quality of instruction in schools. In almost every stage of the decision-making process, timely and accurate information is useful. The Online Faculty Monitoring and Evaluation System will facilitate the collection and analysis of faculty evaluation data in less time.

The Online Faculty Monitoring and Evaluation System is a paperless process in which the evaluator evaluates the teacher using the computer and the system. The results of the software evaluation met the researchers' objectives and are thus worthy of continuation and development. The overall mean of the system evaluation indicated that the developed study was extremely useful and could be of great assistance to the School. The outcomes of the faculty members' evaluations improved their usage.

The Research Usability

It can be recommended to other researchers for future reference, as well as to other schools for use and adoption. It will assess the following five characteristics of software quality:

- (1) **Functionality-** The software features will be checked if they are all working correctly.
- (2) **Reliability-** The software's fault tolerance and recoverability are high; it will not crash.
- (3) **Usability-** The application can easily be understood and navigated by the end-users. The design and images to be used are easy to recognize.
- (4) **Efficiency-** The system responds precisely and efficiently to the commands. It uses resources such as memory, the CPU, and the network.
- (5) **Maintainability-** The software is easy to maintain, and it is stable.
- (6) **Portability-** The software can be used and run in different web browsers' versions and screen resolutions. It does not require vital programs that are hard to install.

ACKNOWLEDGEMENT

I would like to express my sincere appreciation to the department of College of Computer Studies of Trimex Colleges for allowing me to test the Online Faculty Monitoring and Evaluation System.

I want to express my heartfelt gratitude to my friends for their wonderful support and hope. This thesis would not have been possible without such hope. I'd like to express my gratitude to everyone for providing me with strength. Thank you and God bless you all!

DEDICATION

This thesis is dedicated to God, my best friend, and my uncle, who has always been there for me and has shared their thoughts and views with me. Thank you so much to the person who helped me through my academics, this is for you.

To Dr. Louie Agustin, whose encouragement and support have kept me going and ensured that I completed what I started.

I dedicate this Thesis to everyone who has ever touched my heart.

CHAPTER 1

1.1 Introduction

Obtaining faculty feedback from students in schools or colleges is an important component of any academic institution. Typically, faculty evaluation systems have been questionnaire based, with each student receiving a pre-designed questionnaire form. The form may have multiple questions, and students are responsible for assessing each question for each teacher using a predetermined grading system. The primary issue is the manual evaluation procedure, which might result in results being delayed.

With these insights and concepts in mind, the researcher wishes to improve the process of the evaluating teachers in selected private schools in Biñan City, Laguna (Philippines), preferably TRIMEX Colleges, in order to contribute to a more efficient faculty monitoring and evaluation records in the school environment.

1.2 Background of the Study

Trimex Colleges began as a franchise of Datamex, which was founded by Ms. Fleurdeliz A. Constantino in Bian City, Laguna. The operation is divided into five main departments: administration, registrar, accounting, information technology, and secretarial. The school began admitting students on a monthly basis, and it now offers the following courses: 2-year Hardware Technology; 2

years Software Technology; 2 years Secretarial Course. At present, Trimex Colleges now offers undergraduate programs in Business Administration, Computer Science, Information Technology, Computer Engineering, Tourism Management, Accounting Information System, Office Administrations, AB Psychology, Social Works, Accountancy and Technical Vocational Teacher Education Program.

Trimex Colleges currently specializes in offering education not only in the field of technical vocational education but also in Bachelor's degree programs and the Senior High School Tract, with a total population of 2,700 students in the academic year 2020-2021.






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Faculty evaluation is a necessary step in ensuring proper instruction. Traditionally, faculty evaluation is used as a tool to appraise teachers on how they are doing their job. The term "performance" refers to a series of outcomes produced over a period of time and does not refer to the performer's attributes, personal characteristics, or competencies. It is intended to identify the strengths and flaws of teaching.

Faculty evaluation is typically regarded as the most effective approach for improving the quality of education in schools. In almost every stage of the decision-making process, timely and reliable information is useful.

The Online Faculty Monitoring and Assessment System will facilitate the collecting and analysis of faculty evaluation data in less time. The Online Faculty Monitoring and Evaluation System is a paperless process in which the evaluator evaluates the teacher using the computer and the system.

The school is one of the fields that are adopting technology to improve education, facility, and systems that they are using inside their campus. Unfortunately, today, not all schools are still equipped with the proper technology to use for the advancement of their needs. In terms, if processing a faculty evaluation to be used for the semester, Trimex Colleges is one of them. They are still using the manual procedure of tallying the result of faculty evaluation which is very time-consuming and frustrating for the school personnel.

1.3 Objectives of the Study

The proponents will develop an Online Faculty Monitoring and Evaluation System that will help the faculty and students to have accurate results and to convert the manual process to Web Based evaluation system.

Especially, the study endeavors to answer the following:

- To develop a Online Faculty Monitoring and Evaluation System.
- To create a module that will administer questionnaire and generates faculty evaluation reports.

- To create a module that will accept student evaluation.
- To create a module that will evaluate faculty according to the following criteria:
 - a. Methodology and Teaching Strategies
 - b. Class Room Management
 - c. Personality & Interpersonal Skills.

1.4 Significance of the Study

The person who will benefit from the Online Faculty Monitoring and Evaluation System are the following:

Administrator

It is now easier for the administrators of the school to focus on analyzing the performance of individual faculty members in order to find their strengths and weaknesses, as well as how to use the data to make merit pay and promotion decisions. They can use a valid and reliable faculty performance record to do this. This system will assist the administrator in reducing the amount of time spent processing, encoding, and computing the assessment.

Faculty

The system would offer faculty with an instant result of their evaluation, which will assist them in improving their teaching approaches. The system will assign a score to each component of the evaluation and will indicate the faculty's strong and poor points.

Students

The system gives opportunities for the students to express their gratitude and acknowledgment for outstanding faculty members, as well as a means of communicating their thoughts and concerns about underperforming faculty members without regard for time or space constraints.

Future Researchers

To the future researchers, this program designed software and hardware will serve as an effective tool and reference who would intend to make any further relevant study particularly the Online Faculty Monitoring and Evaluation System.

1.5 Scope and Delimitations

In this study, the researchers opted to develop the proposed system with the following features. This System will collect and more accurate data analysis of faculty evaluation in lesser time. The system has provided easy to access to the faculty and students during evaluation.

SCOPE:

The following are the capabilities and features of the System:

- Secured evaluation results.
- Displays reports.
- Can print semestral and Yearly Reports Faculty Evaluation Forms.
- Accepts and validate users.
- Generate the Faculty Evaluation Results.
- Only the admin and the concerned staff can see the results.
- Ready for online and Intranet?/internet.

DELIMITATION:

- The student can only evaluate his professor once.
- The student can only evaluate once per semester.
- The system will be used once every semester

CHAPTER 2

2.1 Review of Related Literature and Studies

Teacher Effectiveness Systems, Frameworks and Measures

Australian Government Department of Education and Training (January 19, 2017). Evaluating teachers' performance and impact is critical for ensuring the educational quality and efficacy. Any framework or model used to evaluate instructors' and teaching's quality must place a premium on the resulting effect on students. A central assertion made throughout this review is that the success criteria for any evaluation of instructors and teaching should be structured around this impact.

The specific objective of this project was to analyze and synthesize current worldwide policies and practices concerning teacher evaluation, to evaluate these systems, and to use the results to drive the development of an Australian teacher effectiveness measure. Australia; New Zealand; England; Scotland; Germany; Austria; Singapore; Hong Kong; South Korea; California, USA; Virginia, USA; Washington, USA; Washington D.C., USA; Ontario, Canada; British Columbia, Canada; and Alberta, Canada were chosen for review based on their comparability to the Australian context.

This assessment and summary were accomplished by performing a fast synthesis of controlled research, grey literature, and policy papers on teacher effectiveness and evaluation techniques. To facilitate reference and clarity,

policies, practices, and processes were summarized and depicted in an evaluation crosswalk. All data were then analyzed further using a traffic light system, with categories selected to reflect the extent of implementation and the levels within each system at which implementation happened. Systems for teacher evaluation vary from sophisticated national systems to localized, informal approaches.

Systemic approaches are typically framed by national or statutory professional standards that articulate the knowledge, practice, and engagement required across career stages. Major features of effective systems include a well-developed and coherent evaluation framework, multiple evidenced based dimensions, and utilize multiple methods and tools that are implemented by a well-trained workforce of evaluators.

The quality, validity, and reliability of tools currently available vary significantly across countries and contexts. An extensive review of currently available measures of teacher effectiveness is provided in this report, entailing a description and overview of each method and an analysis of evidence relating to reliability and validity. The measures include classroom observation, teaching performance portfolios, teacher interviews, performance and development interviews, peer ratings and student ratings.

The influence of the teaching and learning environment, specifically the instructional context, curriculum and assessment systems, class size, facilities,

and materials, also needs to be considered by policymakers in implementing evaluation systems.

Assessing Effectiveness

As Cara Jackson, PhD and Kirsten Mackler(2016). Extensive research has established that, of all in-school variables, the quality of teacher-student interactions has the greatest impact on student learning. According to evidence from a large-scale study in which teachers were randomly assigned to classrooms, teachers recognized as more effective grew student achievement more than other teachers in the same school, grade, and topic the following school year. (Kane, McCaffrey, Miller, & Staiger, 2013).

Students allocated to teachers with a high value-added are more likely to attend college, attend colleges with a higher ranking, earn higher wages, live in neighborhoods with a higher socioeconomic status, and save more for retirement. (Chetty, Friedman, & Rockoff, 2014).

They claim that without data on teacher performance, schools and districts cannot make strategic decisions about staffing their schools, helping their children, or promoting individuals to leadership positions. Recent data from Washington, DC's teacher assessment system add credence to this position, indicating that removing low-performing instructors from the system can have a positive effect on student progress. (Adnot, Dee, Katz, & Wyckoff, 2016).

Currently, only about a quarter of traditional teacher training programs routinely collect data on the performance of their teacher candidates. (Greenberg, McKee & Walsh, 2013).

Student Teaching Evaluations Measure

As Philip B. Stark, Richard Freishtat (September 2014). We do not expect instructors to be equally effective with students of varying backgrounds, preparation, skill, disposition, maturity, and "learning style." As a result, if ratings are exceedingly constant, they most likely do not indicate teaching effectiveness: If a laboratory instrument consistently gives the same reading while its inputs change significantly, it is most likely broken.

However, regardless of their objectives, students cannot rate effectiveness. Calling SET a measure of efficacy does not transform it become one, any more than renaming a bathroom scale's dial "height" transforms it into one. Averaging "height" measurements from 100 different scales would be useless.

An Evaluation of Course Evaluations, Philip B. Stark, Richard Freishtat (September 2014).

Grand Rapids Community College Faculty Evaluation System

The purpose of the Faculty Evaluation System at Grand Rapids Community is to promote excellence in the teaching and learning process. Faculty evaluation at GRCC is intended as a collegial process. The comprehensive Faculty Evaluation System includes multiple measures of assessment designed to provide faculty with the essential information they need to achieve excellence in the teaching and monitoring of learners.

The Faculty Evaluation System promotes excellence by rewarding excellent faculty and by providing the means of individual professional development, resulting in improved student learning and institutional quality. The College also recognizes that faculty who do not meet acceptable levels performance and who fail to improve those levels of performance will not be retained.

The underlying assumption of the Faculty Evaluation System at GRCC is that it is a collegial system with collective responsibility for excellence in teaching and learning shared by each colleague in the academic department and college. Tenure, merit, and promotion are the acknowledgments by one's colleagues of an individual's readiness to move forward to the next level of performance and responsibility. The following describes the tenure, merit, and promotion process, how acceptable levels of performance are determined, how information gained

from performance evaluation is utilized, and how faculty can improve level performance.

*Grand Rapids Community College thanks Columbus State Community College for permission to use language and concepts from its faculty promotion and tenure handbook <http://www.csc.edu/about/facultystaff/PDF/Faculty%20Promotion%20and%20Tenure%20Handbook.pdf> (March 13, 2013).

A Comparison of Teacher Evaluation, Student Surveys and Growth Scores to Identify Effective Teaching Traits

Published by ProQuest LLC (2013). The identification of effective teaching is a continuous and challenging task. The purpose of this study was to determine the association between teacher evaluations, student perception surveys, and student growth scores for third through eighth grade children. The study was conducted on the entire population of the small district. The North Carolina Educator Evaluation System (NCEES), the Educator Assessment Score (EVAAS), and student impression surveys were used as data sources for this study.

The objective was to uncover characteristics of effective teachers from these or combinations of these significant sources. All computations utilized the instructors' EVAAS index. The index was calculated by dividing the amount of progress made by the teachers' students by the population's standard error. T-

test, Pearson product-moment correlation, and multiple regressions were used to examine the data.

The findings indicated statistically significant relationships between administrator-performed teacher evaluations and survey responses from pupils. Correlations between student progress scores were not significant. Using multiple regression analyses, researchers discovered that the combination of NCEES standard 4 (facilitation of learning) and student perception qualities of challenge, enthrall, and confer are statistically significant predictors of student advancement scores in these areas: (EVAAS). Additional study is required to confirm and extend these findings.

Web-based Student Evaluation Of instruction

As Radhika Nayani (Published 2010) the project described in this report is called "Online Student Evaluation of Instruction" (hereafter referred to as the "SEI"); It is a web-based system designed to collect data on instructional effectiveness for summative and formative reasons. Student Evaluation of Instruction (SEI) is a survey instrument used to elicit feedback from students about the quality of their instruction. At the University of Wisconsin-La Crosse (hence referred to as "UWL"), student input is often acquired via paper questionnaires.

These surveys typically include a standard set of questions that address broad characteristics of teaching and include both the instructor and the course. The institution values student evaluations of instruction for two key reasons. To begin, student evaluations give data that is utilized to make administrative choices on professor tenure, promotion, and salary increases. Second, teacher evaluations give professors with feedback to assist them improve their instructional effectiveness. When compared to paper-based evaluation, there are several advantages to using an online system; some of the most significant advantages include increased data collection efficiency, questionnaire design flexibility, eco-friendly avoidance of paper waste, and immediate availability of data for analysis and reporting.

The existing procedure necessitates considerable effort to maintain the student's anonymity. The study describes a project named "Online Student Evaluation of Instruction" (hereinafter referred to as the "SEI"); it is a web-based system that was built to collect data on teacher evaluations for summative and formative reasons.

Evaluations will be administered and gathered in a secure manner. Additionally, reports will be given to administrators in a timely way and in an easily-understandable format. The OSEI system is designed to be adaptable in terms of questions, reports, and evaluations.

Validity and Considerations in Measuring Teacher Effectiveness

Determining what type of teacher evaluation method is best for a given purpose includes taking account of the validity and reliability of the instrument or process being used. Validity is the "most critical factor in determining the quality of any assessment." Validity is a term that relates to the degree to which an interpretation of a test score, or in this example, a score from a teacher effectiveness assessment, is supported by evidence. In order to be valid, a measure of teacher effectiveness must be able to show that it only measures the aspect of teacher effectiveness that it claims to measure and not anything else. Additionally, verification that the measure is valid for the intended use is critical. Instruments and assessments cannot be legitimate in and of themselves; they must be validated for specific objectives. For instance, a score based on observation may be validated for professional growth purposes but not for remuneration purposes.

Determining whether an instrument is accurate or not is based on evidence about how the instrument is used to measure things, what the instrument doesn't measure, and how the scores are being used. This requires the instrument's user to be knowledgeable about these difficulties and willing to make judgements about the extent to which there is sufficient evidence to utilize a particular instrument for the task at hand. The term "generality" refers to an instrument's ability to capture the whole range of teaching scenarios. The authors

differentiate between assessments of teacher performance that are high-stakes, low-stakes, formative, and summative.

Formative evaluations are used to collect data that will aid in the improvement of a program, activity, or behavior. Summative evaluations are used to reach a conclusion on a program, activity, or behavior at a particular moment in time. A classroom observation, for example, may be an unplanned drop-in visit by a headteacher or a scheduled, formal observation by well-trained professional assessors that could effect your career or tenure.

Low-stakes and formative exams are those that do not have significant repercussions and are aimed to collect data in order to provide feedback to teachers to help them improve their teaching. High-stakes and summative evaluations, on the other hand, are formal evaluations with significant ramifications that are used to gather data for a specific decision-making process.

Approaches to Evaluating Teacher Effectiveness: A Research Synthesis
(June 2008)

Web Applications vs. Client/Server Applications

Client/server describes the relationship between two computer programs, one on the client's computer and the other one on the server, in which the client's program requests the server's program that fulfills the request. [Sullivan] A Web application functions the same way, but with a browser and a Web server. Instead of using an installed and licensed client program, Web applications use a

standard Web browser to connect to the server. [Greene] In this report we define a Web application by definition by Jim Conallen as a Client/Server software system that has, at a minimum, a browser, a Web server, an application server and possibly also a database server.

There are however differences between a Web application and a Client/Server application. GUI, structure, navigation, protocols, speed, security, techniques, etc. are issues that can differ, but although the overall differences are rather indistinct. The applications have the same architecture, the functionality is the same, and they are used in many of the same situations. [Sullivan] [Conallen]

In the early 1990's analysis was a small part of the traditional (non-Web) system development process and consisted of about 25 percent of a projects total time. [Hernbäck] Ten years later the analyze part had grown to about 50 percent which shows the development of this subject over the years. The traditional Web page has been developed to be as fashionable as possible, and this approach has caused problems because of the lack of functionality analyzing.

Another aspect is that reuse and site maintenance is not considered, leading to difficulties in making modifications but also takes away the possibility to reuse parts of the application, saving time and money in the development process. [Powell] One earlier approach in Web application development was the Rapid Application Development (RAD) process.

Web Application Development, Andreas Oskarsson, Martin Kling, Tobias Norberg (2002)

Instructor's Performance: Proposed Model for Online Evaluation

According to Salah Alkhafaji and Sriram B. (October 2013). Because of increased awareness and quality audits, higher education institutions are now keeping track of their many performance indicators. The performance of the instructor in the classroom is one of the most significant activities that must be assessed and evaluated. As the primary stakeholders in the educational process, students' concerns about the instructor, instructional pedagogies and methodology, and evaluation procedures must be collected and assessed in order to achieve the institution's aims and objectives.

Students must provide feedback on the instructor's numerous performance measures. In general, higher education institutions employ a variety of approaches to assess instructors' performance in the classroom from students. The most recent technology advancements aid in data collection via online technologies. Higher education institutions will benefit from an online system that includes the necessary questionnaires and attributes for quick data collecting. Aside from that, students must be free to express themselves from any location and at any time.

Online Teaching Performance Evaluation System: A Tool for Quality

Education

Cecilia Isidro Anido (2009) mentioned that Far Eastern University (FEU) is a private, non-sectarian school of higher learning dedicated to providing quality service to its more than 23,000 students and around 1,500 academic and non-academic workers. FEU is constantly challenged to provide high-quality education in the most effective and efficient manner possible.

The complexities of managing school operations necessitate well-informed academic administrators. Many academic managers continue to face a significant problem in meeting the important demand for quality and relevant information to support decision-making. The institution began computerization efforts in the late 1990s, realizing the significance of leveraging information technology to assist important and fundamental administrative business tasks. Information technology has become an essential component of the university's business procedures.

2.2 Concept of the Study

Conceptual Framework

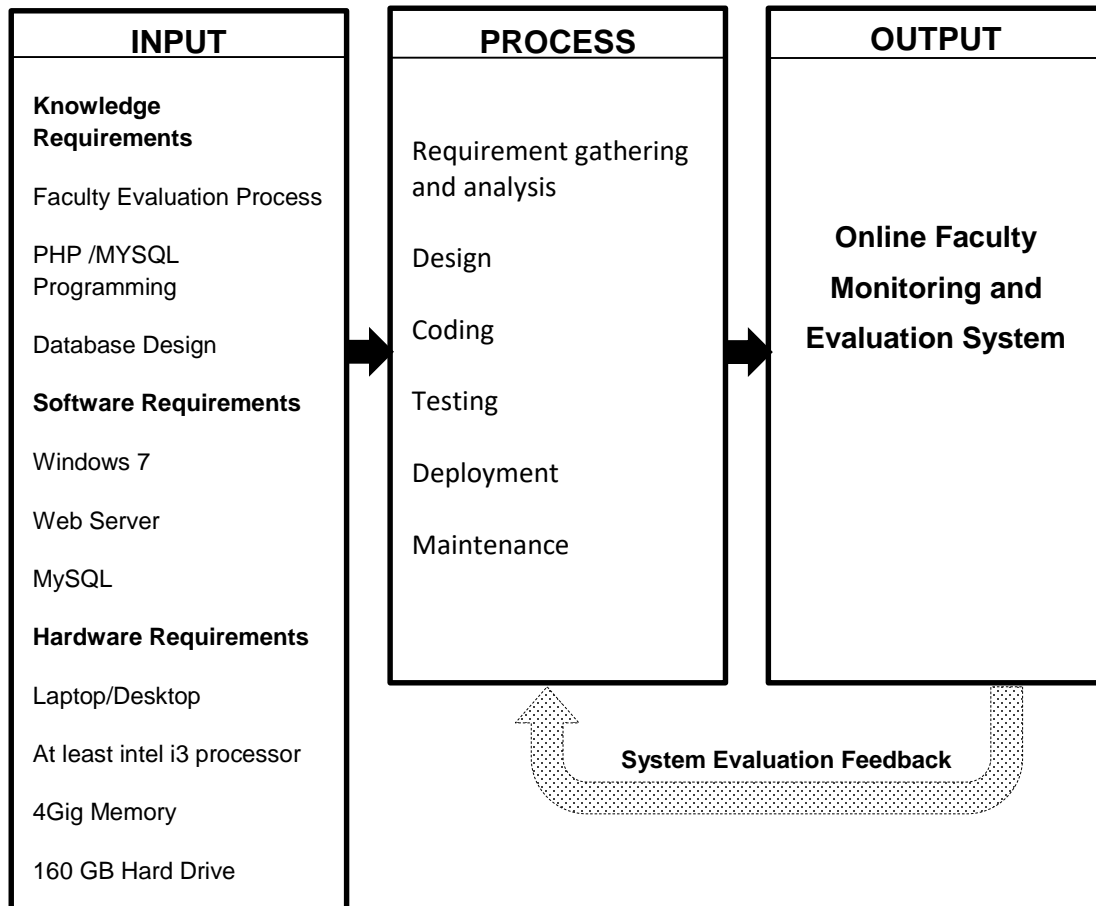


Figure 1: Conceptual Framework

The study's input is divided into four categories. The first are the knowledge requirements, which include the faculty evaluation procedure, web base design, and database design. The second set of needs is the software, which includes the operating system Windows 7, the web server, and MySQL, which will function as the database engine. Last but not least is the hardware

need, which is a laptop or desktop computer capable of running the system with the following specifications: at least 4GB of RAM, a 160GB hard drive, and an Intel i3 processor. The proponents employed the Systems development life cycle process (SDLC). The system itself, Online Faculty Monitoring and Evaluation System, is the outcome.

2.3 Definition of Terms

CPU The central processing unit (CPU) of a computer is the electronic circuitry that executes computer programs by completing the basic arithmetic, logical, control, and input/output (I/O) functions described by the instructions.

Database A database is a collection of data that has been arranged. It consists of schemas, tables, queries, reports, and views, as well as other items. Typically, database designers structure data in such a manner that it helps processes that require information, such as modeling the availability of rooms in hotels in such a way that it enables finding a hotel with vacancies.

Evaluation	is the process of systematically determining a subject's merit, worth, and relevance by the use of criteria guided by a set of standards.
Hard Disk	is a magnetic data storage device that uses one or more rigid quickly spinning disks (platters) covered with magnetic material to store and retrieve digital information.
Hardware	is a term that refers to the physical components or pieces of a computer, such as the monitor, keyboard, computer data storage, graphic card, sound card, and motherboard, which are all tangible objects.
MySql	is the most widely used language for creating, retrieving, and maintaining database content. It is most well-known for its rapid processing, established reliability, ease of use, and adaptability.
Software	is a part of a computer system that consists of data or computer instructions, in contrast to the physical hardware from which the system is built.

Web-based is software you use over the internet with a web browser.

Web Server is a program that utilizes the HTTP (Hypertext Transfer Protocol) to deliver the files that comprise Web pages to users in response to their HTTP client-forwarded requests.

Windows a computer operating system with a graphical user interface.

CHAPTER 3

OPERATIONAL FRAMEWORK

3.1 Materials

3.1.1 Software

The proponent use the following software base in windows 7 Operating System. Mysql has used as the storage for all of the data, browser such as Chrome, Mozilla, Opera and Internet Explorer including Safari browser are a tools to use and to see the output of the program and for the Web Server the Apache. PHP web scripting language is more appropriate in developing the website back-end part.

3.1.2 Hardware

Some hardware requirements must be met in order for the system to be developed. It is necessary to have a desktop or laptop computer with at least an i3 processor, 2 gigabytes of RAM, and 160 gigabytes of hard disk space.

3.1.3 Data

Trimex Colleges uses the Faculty Evaluation Form to evaluate faculty, which is separated into three sections: Methodology and Teaching

Strategies, Classroom Management, and Personality and Interpersonal Skills.

TRIMEX COLLEGES, INC. (formerly TRIMEX INSTITUTE OF SCIENCE AND TECHNOLOGY)
Poblacion City of Biñan, Laguna

Faculty Performance Evaluation (By Students)

DIRECTION: Kindly rate the accordingly based on the Likert scale.

5 - Outstanding	4 - Very Satisfactory	3 - Satisfactory	2 - Needs Improvement	1 - Poor
-----------------	-----------------------	------------------	-----------------------	----------

(Note: Please answer as honestly and truthfully as possible so we can provide a better service to you.)

Teacher's Name ➔

I. METHODOLOGY AND TEACHING STRATEGIES												
1. Encourage maximum participation of Students in all Activities.												
2. Makes use of whiteboard/ audio visual materials like pictures, graphs and other instructional materials to make the lesson more interesting.												
3. Provides students of more opportunities for learning by giving assignments, research work which would be accomplished within allotted time.												
4. Encourage students to ask intelligently and relevant questions.												
5. Evaluate students performance by giving quizzes from time to time.												
6. Integrates values and other related fields into the subject matter.												
7. Answers questions intelligently and satisfactory.												
8. Delivers the lessons sequence and logical manner.												
9. Communicates higher ideas well.												
10. Has a well-modulated voice, good communication skills and pronunciation.												
11. Integrates sense of humor to creatively teach the lesson.												
12. Makes the lesson more interesting by integrating real life experiences related to the topics.												
II. CLASSROOM MANAGEMENT												
1. Maintains classroom discipline, observes daily classroom, routines, like checking of attendance, uniforms, ID and creating classroom environment conducive to learning												
2. Sees to it that the room is clean and orderly at all.												
III. PERSONALITY AND INTERPERSONAL SKILLS												
1. Project self- confidence, respects, opinions, suggestions and comments of students.												
2. Projects respectable and decent image.												
3. Integrates positive values in the lesson.												
4. Maintains proper attire and well-grooming.												
5. Always punctual.												

COMMENTS/SUGGESTIONS: (You can also use the back page, if necessary)

Figure 2: Faculty Evaluation Form

3.2 Methods

3.2.1 Experimental design

The proponents will use developmental research method since the study focuses on designing, developing and evaluating instructional programs, processes, and products.

The researcher follows the System Development Life Cycles which has six (6) phases that play dynamic roles which define the task to be completed at each step in the software development process. In the proponent project, the proponents used the Software Development Life Cycle or SDLC. Software Development Life Cycle (SDLC) is a process used by the software industry to design, develop and test high-quality software.

The SDLC is designed to deliver high-quality software that meets or exceeds customer expectations and is completed within the estimated time and cost. SDLC is a process that is followed by a software development organization when working on a software project. It is a detailed plan outlining the steps involved in developing, maintaining, replacing, and altering or enhancing certain software. The life cycle approach defines a process for enhancing the software's quality and the overall development process.

Figure 3 illustrates the steps carried out in the SDLC model. These steps are listed below.

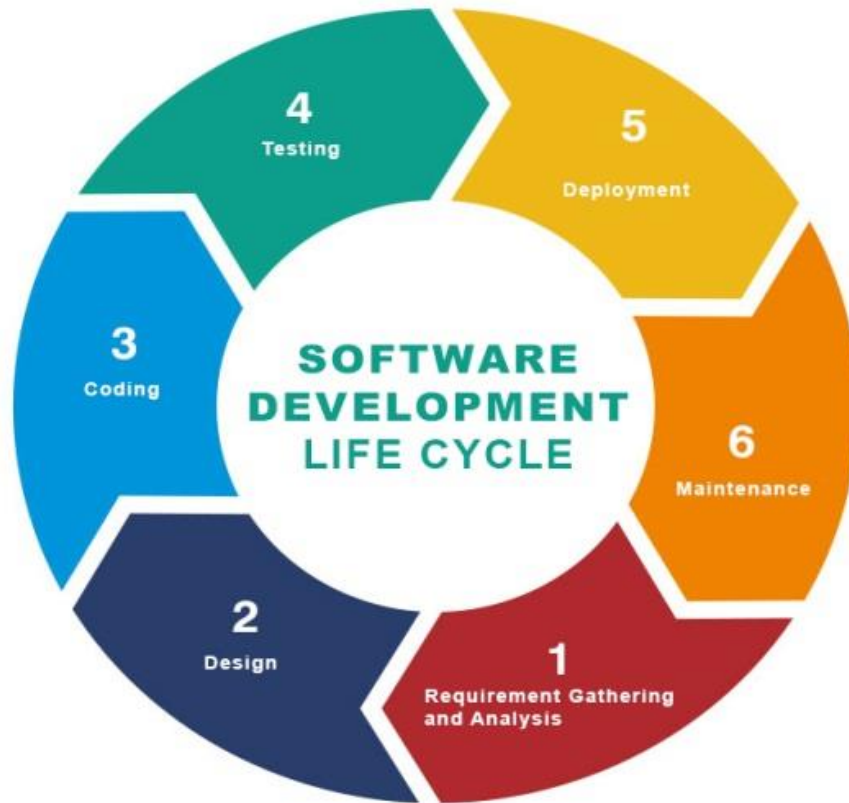


Figure 3: SDLC Model (Boyce)

3.2.2 Procedure for the different phases

Requirement gathering and Analysis Phase

The researcher will interview the administrator of Trimex Colleges. Possible information depending on the needs of the users will be gathered.

These include the use of the system, who are the users, and how long the development process will take.

These are general queries that will be addressed during requirement gathering phase. The researcher started to define the requirements. The software and hardware technology to be used were identified.

Table 1: Interview Questionnaire

Questions	Yes	No
1. Are you satisfied with the traditional method of Online Faculty Monitoring and Evaluation System?		
2. Is the record retrieval process convenient for you?		
3. Are you confident that all entries are accurate and free of error?		
4. Are all you open to using Online Faculty Monitoring and Evaluation System		
5. Do you find it easy to record information through the computer?		
6. Is said information easily recoverable in situations where records would be lost? (I.e. fires, floods, etc.)		
7. Do you believe that Online Faculty Monitoring and Evaluation System would be more efficient than a paper-based system?		
8. Do you believe that Online Faculty Monitoring and Evaluation System can help improve your organization?		

Design Phase

In the second stage, when requirements are already known, design for the system is created. In this stage, the system architecture is presented.

It is not a detailed design and only include the important aspects of the system, which gives an idea of the system to the user. The design will help in developing the system faster and better.

The system architecture and flow of the system will be defined in this phase. The researchers will develop the system using PHP as the programming language, MYSQL for the database

In table 2 and table 3, are hardware and software specifications of the proposed project.

Table 2: Hardware Specifications

Hardware Specifications

Item Name	Description
Desktop computers/ Laptop	At least i3 processor
Memory	4GB
Keyboard	USB, optical mouse
Mouse	USB, optical

Monitor	LED, at least 15'
Hard Drive	160Gb

This table demonstrates that the hardware specifications of a computer are technical descriptions of the computer's many components and capabilities.

Table 3: Software Specifications

Software Specifications

Item Name	Description
Operating System	At least Windows 7 or 8
Web Server	Apache
Database Server	MySQL
Scripting Language	PHP
Browser	Chrome/Mozilla/IE/Safari/Opera

The table above demonstrates how software specifications are used to precisely outline the system's intended capabilities, appearance, and interactions with users for software developers.

Design of the Study

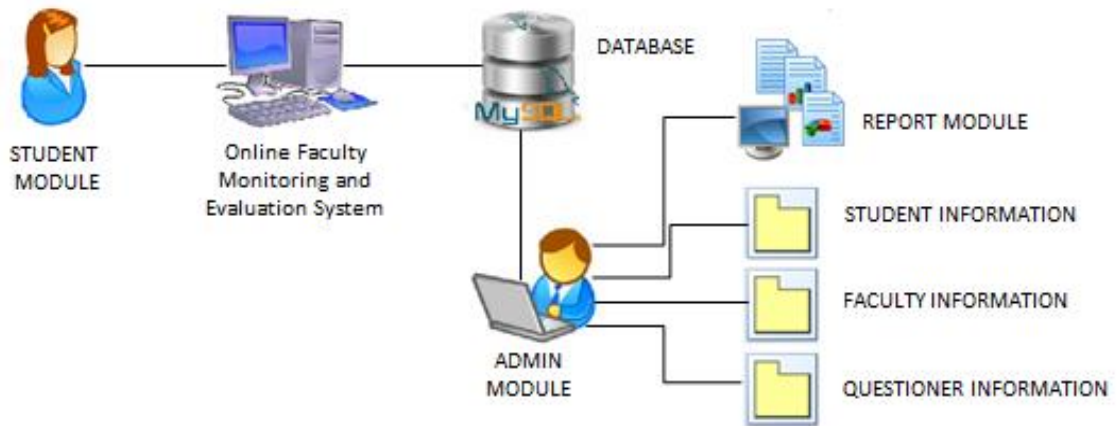


Figure 4: System Architecture

The Online Faculty Monitoring and Evaluation System (OFMES) has numerous components, as illustrated in the figure above. User accounts and reports will be administered and monitored by administrators such as the Administrator, who will also be in charge of monitoring student assessments of teachers.

The student module is a component of the system that allows students to rate and assess faculty members and their performance in class. The Faculty Information will display the faculty data, while the Student Information will display the student data, and the Questionnaire Information will display the set of questions that were going to be used for the evaluation of the faculty. The Student Information will display the student data, while the Faculty Information will display the faculty data.

Database Schema

Figure 5 shows the database design of the proposed system. It establishes the organizational structure of data and the relationships between them. It specifies each constraint that will be applied to the data

. The schema was created by database designers to assist programmers in understanding and making use of the database.

A database schema can be divided broadly into two categories:

Physical Database Schema - This schema is concerned with data storage and the different forms it might take, such as files, indices, and so on. Data will be saved in a secondary storage place based on the settings specified in this section.

Logical Database Schema - In this design, all of the logical restrictions that must be imposed to the stored data are specified in detail. It specifies the tables and views that will be used, as well as the integrity restrictions.

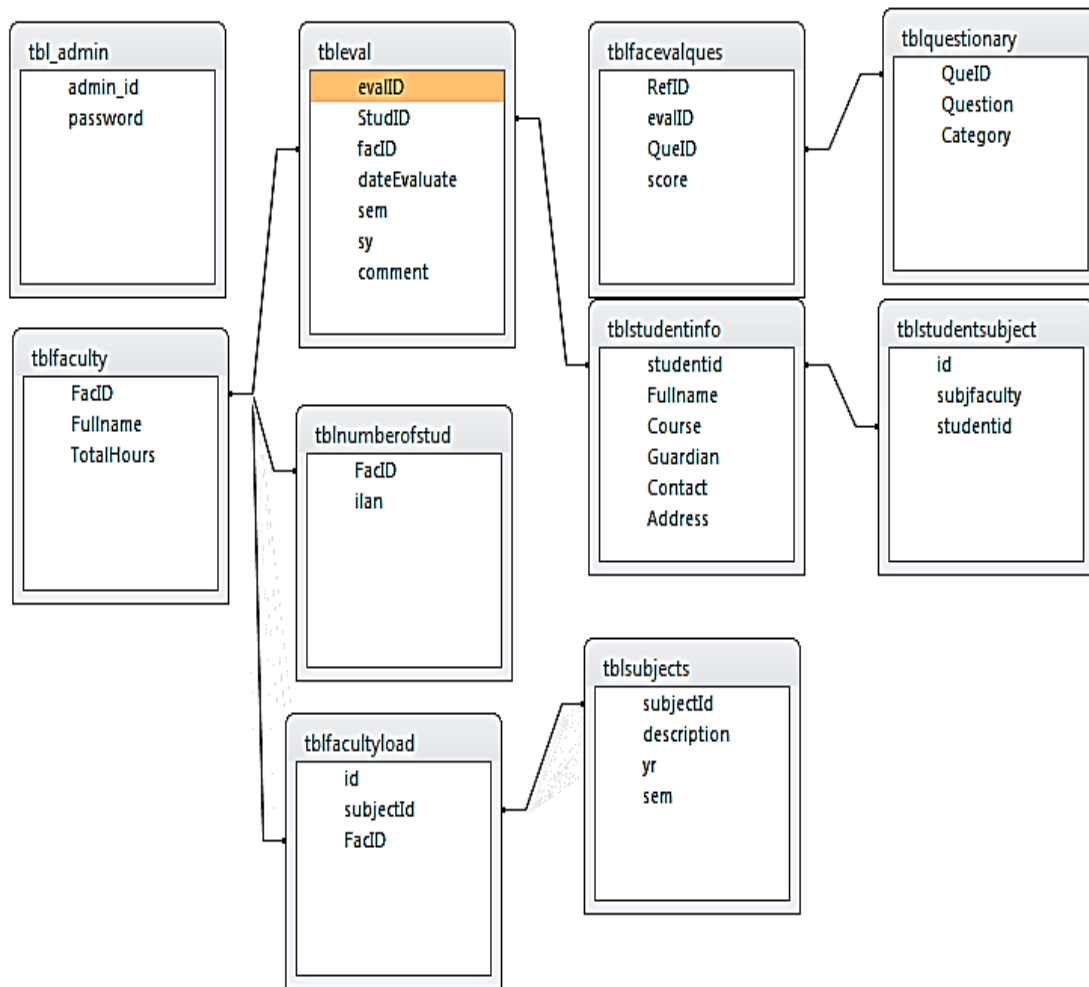


Figure 5: Database Schema

It can be seen in the figure above that the database contains an entity relationship that may be established between the tables. It lets a relational database to efficiently store large amounts of data while also retrieving specific data quickly and efficiently.

Use Case Diagram

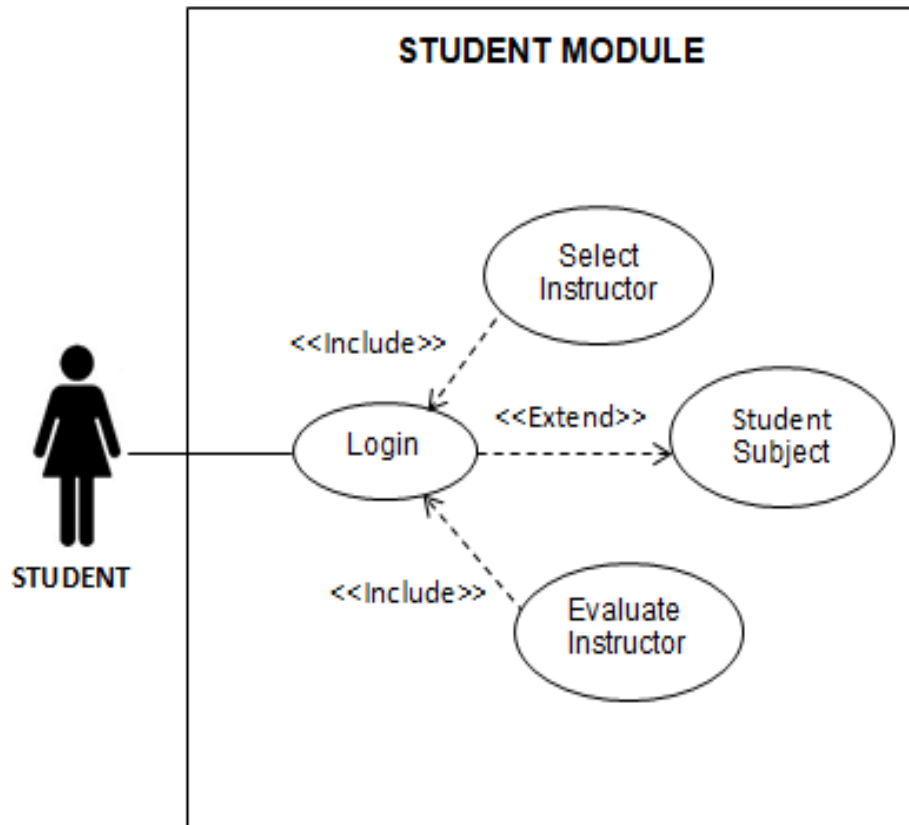


Figure 6: Use Case Diagram for Student Module

The figure shows that the Student is responsible in logging in on the system, select instructor, and evaluate instructor. Students, through the evaluating their teachers, the student can provide insight about their instructors on what they are doing well and what they need to improve.

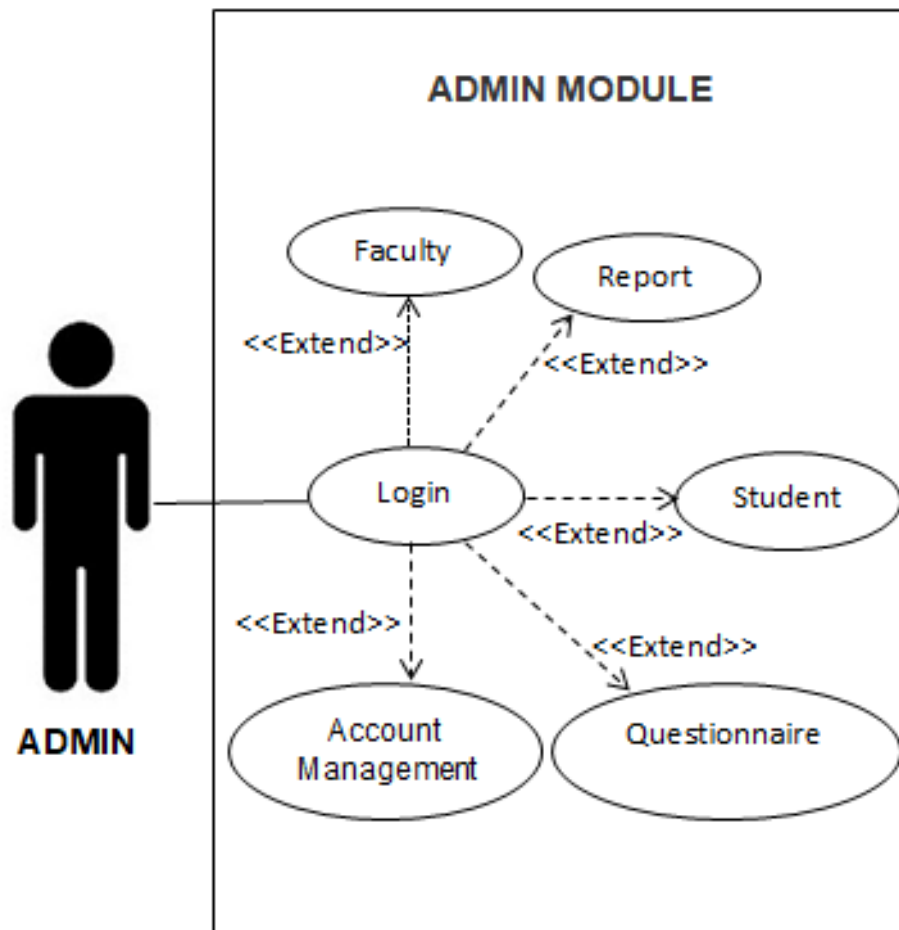


Figure 7: Use Case Diagram for Admin Module

The following modules can be accepted by an administrator: login, manage students, control questions, maintain results, manage the account, control reports, and manage faculty members, as shown in the figure. They are in charge of the day-to-day operations and serve as instructional leaders in these establishments. The Questionnaire, which serves as the basis for faculty evaluations, is managed by administration.

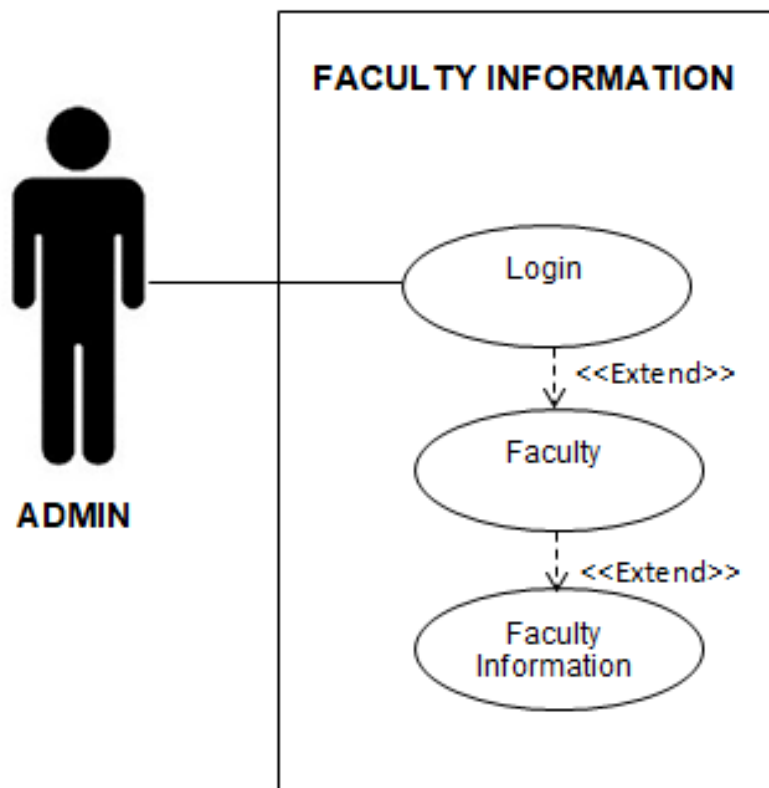


Figure 8: Use Case Diagram for Faculty Information

The admin login is shown first in the figure above, followed by the faculty information, which will be used for encoding faculty data under the admin account.

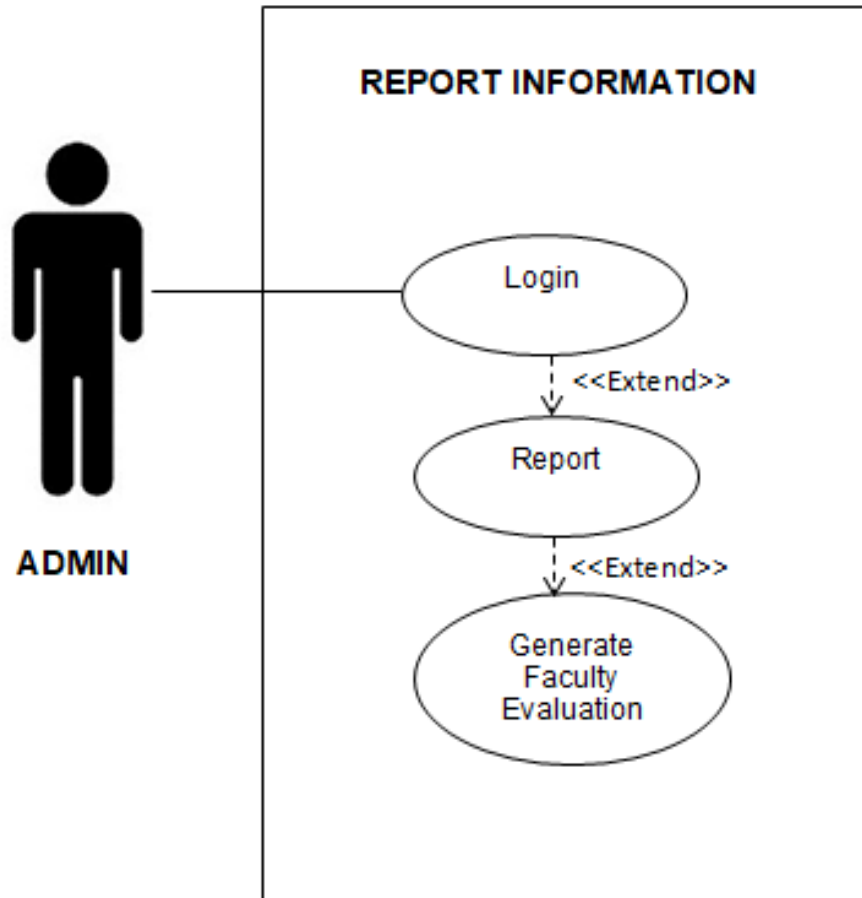


Figure 9: Use Case Diagram for Report Information

This figure describes how an administrator can make use of the report information module. The faculty evaluation reports are generated by the report information module, which generates reports for faculties that have been evaluated by students.

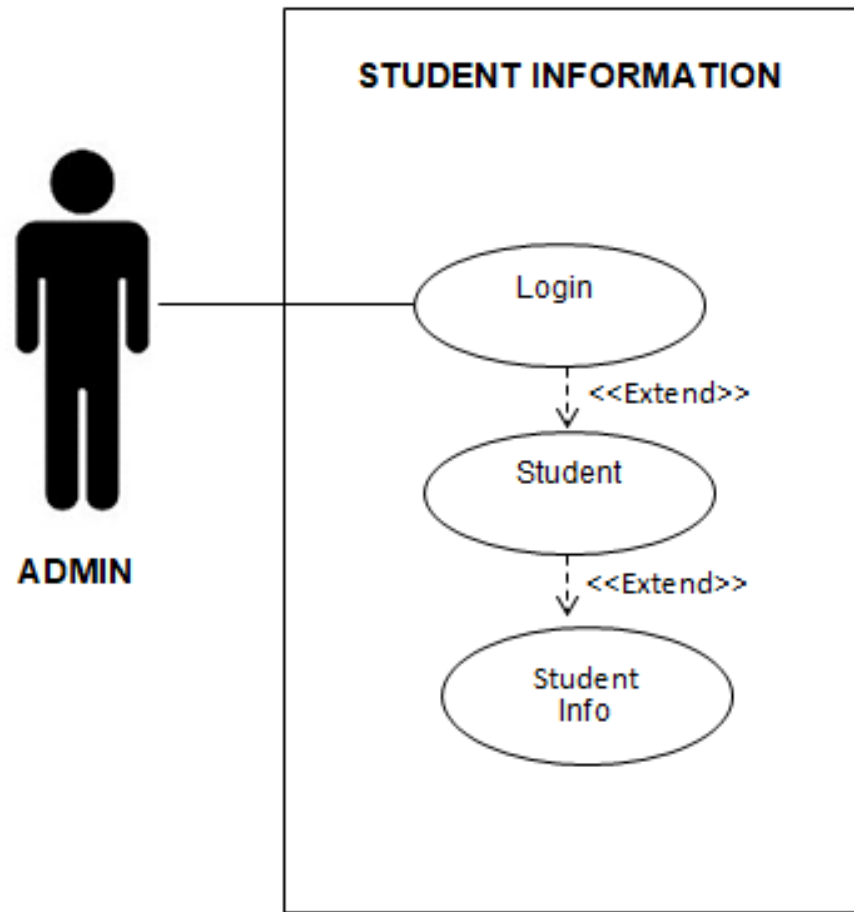


Figure 10: Use Case Diagram for Student Information

This figure describes how administrators can encode student data for students who are only permitted to review the faculty assigned to their course.

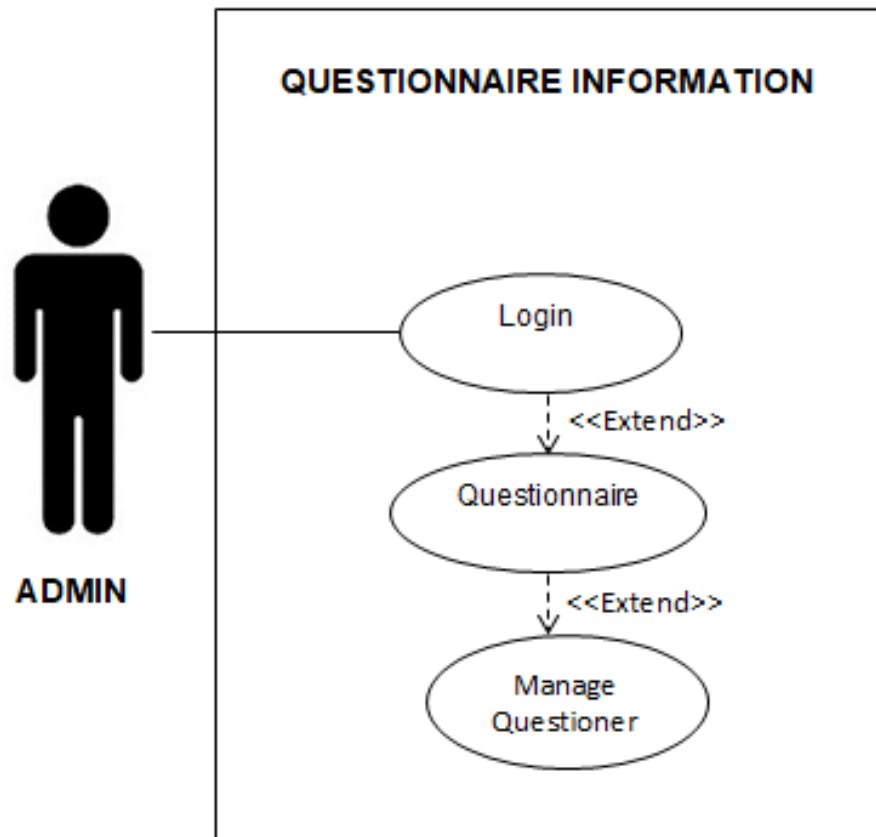


Figure 11: Use Case Diagram for Questionnaire Information

This figure explains how a questionnaire administrator is in charge of the data collected through the questionnaire. An account login, questionnaire evaluation, and questioner management are all included in this module.

Coding Phase

Immediately after getting system design documentation, the real coding begins. The developer's attention is focused on this phase because the code is being written. This is the longest phase of the software development life cycle. PHP and were use in developing the software and MySQL as the medium for the database storage.

Testing Phase

During the testing process after the code has been written, it is compared against a list of requirements to make sure that the product fits those demands. Non-functional testing is also carried out at this phase, which includes unit testing, integration testing, system testing, and acceptance testing.

Before a software can be used, it must go through four steps of testing: unit testing, integration testing, system testing, and acceptance testing.

Unit Testing

During this initial stage of testing, the program is subjected to assessments that focus on specific units or components of the software to see whether they are completely functional. A testing technique in which individual modules are tested by the developer to see if there are any flaws. It is concerned with the standalone modules' functional soundness.

A unit in this phase might relate to a function, individual program, or even a procedure, and a White-box Testing method is typically utilized to complete the task. One of the most significant advantages of this testing phase is that it may be executed whenever a piece of code is modified, allowing bugs to be fixed as soon as feasible. Unit tests are commonly performed by software developers prior to sending software to testers for formal testing.

The main aim is to isolate each unit of the system to identify, analyze and fix the defects.

Unit Testing - Advantages:

Reduces bugs when modifying existing functionality or reducing faults in newly developed features. Reduces testing costs by detecting flaws early on. Improves code restructuring and design. When unit tests are combined with the build, they provide information about the build's quality.

Integration Testing

The purpose of integration testing is to verify the function, performance, and reliability between the modules that are integrated. Individuals can use integration testing to merge all of the modules within a software and test them as a group. This is very useful because it determines how efficiently the units work together. Remember that no matter how efficiently each unit runs, if they aren't

correctly integrated, the software program's functionality will suffer. Individuals can use a variety of testing methods to run these types of tests, but the precise approach that will be utilized to get the job done will be heavily influenced by how the units are specified.

System Testing

The initial level of testing is system testing, which involves testing the entire program as a whole. At this level, the purpose is to determine whether the system has met all of the requirements and whether it meets Quality Standards. System Testing (ST) is a black box testing approach used to assess the overall system's compliance with defined requirements.

The functionalities of the system are tested from beginning to end in system testing. System testing is typically performed by an independent team for the development team in order to measure the system's quality unbiasedly. It comprises testing for both functional and non-functional aspects.

Acceptance Testing

Acceptance testing, the final level, is a testing process used to verify whether or not the software system has satisfied the needed standards. The major goal of this test is to assess the system's compliance with business requirements and to confirm that it meets the criteria for delivery to end users.

During the Software development life cycle, requirement modifications can be misconstrued in ways that do not fulfill the users' intended needs. During this final phase, the user will test the system to see whether the application meets the needs of their business. After this process is done and the software has been approved, the program will be delivered to production.

Software Test Plan Flow

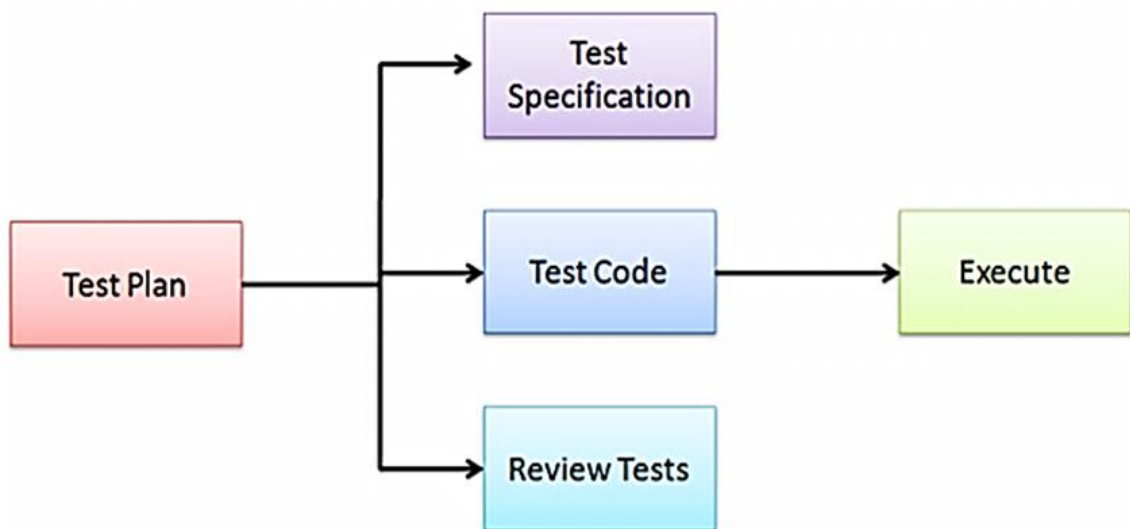


Figure 12: Software Test Plan

Test Specification

A specification of inputs, expected results, and a set of execution steps associated with the testing of modules. This section contains subsections for each of the modules to be tested and each sub-module specifies the cases to be tested. Different types of software testing are performed depending on the size of the project, the current project phase, and the amount of progress made in the coding process.

Types of testing include Unit testing may also be known as module testing and is used to test small parts of code such as functions and modules. Programmers should test each module to be sure it performs as intended, Integration testing that will test the interfaces between modules; System integration testing is performed when the system needs to interface with other or third-party systems.

These testings tests against the system requirements specification for interface to other systems. Acceptance testing is a testing by the customer or end user to determine whether the software is acceptable. In test code, you will be able to see what module is needed to fix or revise after the execution and to review those test results.

Table 4: Test Matrix

MODULES	SUB Modules	TEST TYPE
STUDENT	-	Unit Testing
ADMIN		
	Faculty Information	Unit Testing
	Report Information	Unit Testing
	Student Information	Unit Testing
	Questionnaire Information	Unit Testing

In test plan, the modules will undergo testing and trial to determine whether the system is working.

Below is the test plan for each module:

Table 5: Student

Test ID	1
Test Name	Student
Description	Ensure that components pass unit and integration testing, and perform basic operations as expected.
Pre-requisite	None
Test Environment	Acceptance Server
Test Strategy	Unit Testing

Step	Descriptions	Expected Results
1	Open the Online Faculty Monitoring and Evaluation System in a web browser.	The webpage is displayed correctly
2	Login student Account	The application will read and display the student account page.
3	Evaluate Faculty	The application will display the evaluation criteria.
4	Subject Page	Can Add subjects.

Table 6: Faculty

Test ID	1
Test Name	Faculty
Description	Ensure that components pass unit and integration testing, and perform basic operations as expected.
Pre-requisite	None
Test Environment	Acceptance Server
Test Strategy	Unit Testing

Step	Descriptions	Expected Results
1	Open the Online Faculty Monitoring and Evaluation System in a web browser.	The web page is displayed correctly
2	Login admin Account	The application will read and display the student account page.
3	Faculty Page	The application will display the faculty page and can add faculty records and subject handled.

Table 7: Report

Test ID	1
Test Name	Report
Description	Ensure that components pass unit and integration testing, and perform basic operations as expected.
Pre-requisite	None
Test Environment	Acceptance Server
Test Strategy	Unit Testing

Step	Descriptions	Expected Results
1	Open the Online Faculty Monitoring and Evaluation System in a web browser.	The web page is displayed correctly
2	Login admin Account	The application will read and display the admin account page.
3	Report Page	The application will display the report page and Generate Reports.

Table 8: Admin

Test ID	1
Test Name	Admin
Description	Ensure that components pass unit and integration testing, and perform basic operations as expected.
Pre-requisite	None
Test Environment	Acceptance Server
Test Strategy	Unit Testing

--	--

Step	Descriptions	Expected Results
1	Open the Online Faculty Monitoring and Evaluation System in a web browser.	The web page is displayed correctly
2	Login admin Account	The application will read and display the admin account page.
3	Student Page	The application will display the student information. Can add student records.

Table 9: Questionnaire

Test ID	1
Test Name	Questionnaire
Description	Ensure that components pass unit and integration testing, and perform basic operations as expected.
Pre-requisite	None
Test Environment	Acceptance Server
Test Strategy	Unit Testing

Step	Descriptions	Expected Results
1	Open the Online Faculty Monitoring and Evaluation System in a web browser.	The web page is displayed correctly
2	Login admin Account	The application will read and display the admin account page.

3	Questionnaire Page	The application will display the questionnaire page. Can Manage questionnaire.
---	--------------------	---

Operating Procedures

The Operating Procedure is a step-by-step system instruction gathered to carry out the System's operation. SOPs strive for efficiency, quality output, and consistency of performance while reducing miscommunication and noncompliance with industry laws.

Below are the different operating procedures of each Module that indicate system and work instructions.

Table 10: Operating Procedure for Student Module

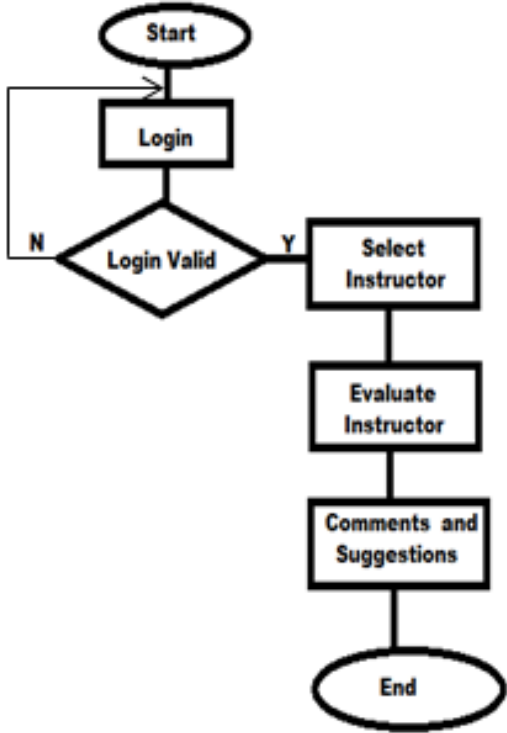
MODULE: STUDENT	
Process	Work Instructions
 <pre> graph TD Start([Start]) --> Login[Login] Login --> Valid{Login Valid} Valid -- N --> Login Valid -- Y --> Select[Select Instructor] Select --> Evaluate[Evaluate Instructor] Evaluate --> Comments[Comments and Suggestions] Comments --> End([End]) </pre> <p>The flowchart illustrates the student login and evaluation process. It begins with a 'Start' terminal, leading to a 'Login' process box. This leads to a decision diamond 'Login Valid'. If the login is invalid (N), the process loops back to the 'Login' box. If valid (Y), the process proceeds to 'Select Instructor', followed by 'Evaluate Instructor', then 'Comments and Suggestions', and finally ends at an 'End' terminal.</p>	<p>The student can gain access by logging into the system.</p> <p>A student chooses the course and the faculty to review it, and then provides comments and suggestions to the course faculty.</p> <p>After completing the assessment, the student saves the answers and logs out of the system.</p>

Table 11: Operating Procedure for Admin Module

MODULE: ADMIN	
Process	Work Instructions
<pre> graph TD Start([Start]) --> Login[Login] Login --> LoginValid{Login Valid} LoginValid -- N --> Login LoginValid -- Y --> ManageFaculty[Manage Faculty] ManageFaculty --> ManageReports[Manage Reports] ManageReports --> ManageStudents[Manage Students] ManageStudents --> ManageQuestions[Manage Questions] ManageQuestions --> End([End]) </pre>	<p>Log in the Admin page account.</p> <p>The admin page displays Manage Faculty. Managing Reports all the faculty members/Instructor.</p> <p>The subject instructors the student evaluated.</p> <p>Administrators are in charge of student data, faculty, and questionnaires.</p>

Table 12: Operating Procedure for Faculty Information

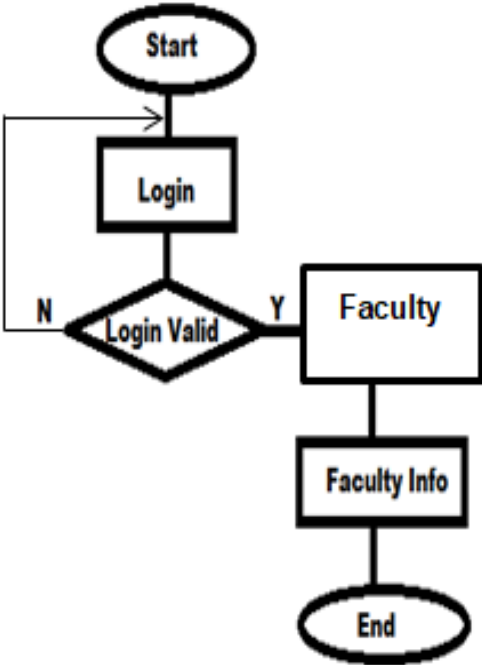
MODULE: FACULTY INFORMATION	
Process	Work Instructions
 <pre>graph TD; Start([Start]) --> Login[Login]; Login --> Valid{Login Valid}; Valid -- N --> Login; Valid -- Y --> Faculty[Faculty]; Faculty --> Info[Faculty Info]; Info --> End([End]);</pre> <p>The flowchart illustrates the process for displaying faculty information. It begins with a 'Start' terminal, followed by a 'Login' process. A decision diamond labeled 'Login Valid' follows. If the login is invalid (N), the process loops back to the 'Login' step. If the login is valid (Y), the process proceeds to a 'Faculty' process, then to 'Faculty Info', and finally to an 'End' terminal.</p>	<p>Faculty Information page displays all the faculty information.</p>

Table 13: Operating Procedure for Report Information

MODULE: REPORT INFORMATION	
Process	Work Instructions
<pre> graph TD Start([Start]) --> Login[Login] Login --> LoginValid{Login Valid} LoginValid -- N --> Login LoginValid -- Y --> Report[Report] Report --> Generate[Generate Faculty Evaluation] Generate --> End([End]) </pre>	<p>Report Information presents the process of gathering, generating, and submitting data to institutions concerned with producing reports.</p>

Table 14: Operating Procedure for Student Information Module

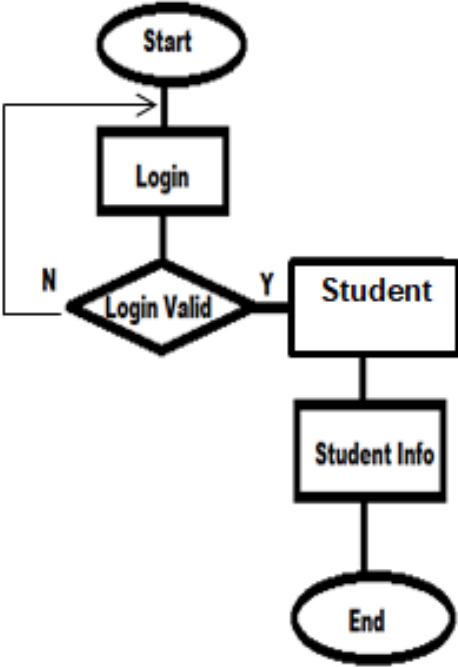
MODULE: STUDENT Information	
Process	Work Instructions
 <pre> graph TD Start([Start]) --> Login[Login] Login --> Valid{Login Valid} Valid -- N --> Login Valid -- Y --> Student[Student] Student --> Info[Student Info] Info --> End([End]) </pre> <p>The flowchart illustrates the process flow. It begins with a 'Start' terminal, leading to a 'Login' process box. This leads to a decision diamond labeled 'Login Valid'. If the login is invalid (N), the flow loops back to the 'Login' process. If the login is valid (Y), the flow proceeds to a 'Student' process box, followed by a 'Student Info' process box, and finally an 'End' terminal.</p>	<p>The Student Information had a Login account and displays Student Information's.</p>

Table 15: Operating Procedure for Questionnaire Information Module

<p align="center">MODULE: QUESTIONNAIRE Information</p>	
<p align="center">Process</p>	<p align="center">Work Instructions</p>
<pre> graph TD Start([Start]) --> Login[Login] Login --> LoginValid{Login Valid} LoginValid -- Y --> Questionnaire[Questionnaire] Questionnaire --> ManageQuestionnaire[Manage Questionnaire] ManageQuestionnaire --> End([End]) LoginValid -- N --> Login </pre>	<p>Questionnaire Information has a Login account and displays all questions to the evaluators to gather and rate the subject Instructors.</p>

Deployment Phase

After the successful testing, the system is delivered/deployed to the customer for their use. The Deployment Phase is the final phase of the software development life cycle (SDLC) and puts the system into production. After the project team tests, the product and the system pass each testing phase, the product is ready to go live. This means that the system is ready to be used in a real environment by all end users of the product.

Maintenance Phase

In this stage of maintenance, a corrective maintenance will be applied. Once when the customers start using the developed system, then the actual problems come up and needs to be solved from time to time. This process where the care is taken for the improved system is known as maintenance.

3.2.3 Evaluation

Evaluation is a process of judging how well the system's original intended goals have been achieved. After the testing strategies have been conducted, the proponent will create an evaluation questionnaire to assess the software further. The formulation of questionnaires will be based on the ISO 9126, which is the software product evaluation standard from the International Organization for

Standardization. This international standard defines five characteristics that describe software quality namely:

Functionality- Is performed to verify that a software application performs and functions correctly according to design specifications. The software features will be checked if they are all working correctly.

Reliability- The software's fault tolerance and recoverability are high; it will not crash.

Usability- The application can easily be understood and navigated by the end-users. The design and images to be used are easy to recognize.

Efficiency- The system responds precisely and efficiently to the commands. It uses resources such as memory, the CPU, and the network.

Maintainability- The software is easy to maintain, and it is stable.

Portability- The software can be used and run in different web browsers' versions and screen resolutions. It does not require vital programs that are hard to install.

These characteristics were rated by the respondents using the 5-point Likert scale as shown in Table 16.

Table 16: Likert scale

Scale	Range	Interpretation
5	4.6 - 5.0	Strongly Agree
4	3.7 - 4.5	Agree
3	2.8 - 3.6	Neither agree nor disagree
2	1.9 - 2.7	Disagree
1	1.0 - 1.8	Strongly Disagree

On the other hand, the statistical treatments for this study were frequency and percentage distributions for data presentation and weighted mean to determine the results of the software evaluation. Below is the evaluation criteria used by the proponent.

Software Evaluation Criteria

Name: _____
 Position: _____

Signature: _____

Direction: Check the box that corresponds to your answer. Use the legend as your guide.

LEGEND: 5 - Strongly Agree 4 - Agree 3 - Neutral
 2 - Disagree 1- Strongly Disagree

Table 17: Software Evaluation Criteria

Criteria	Indicators	Ratings				
		5	4	3	2	1
Functionality	The system has a working system security such as login.					
	The student can evaluate the instructor performance.					
	The system displays the students' and faculty information.					
	The system has the capacity for multi-user processing.					
	The system can generate faculty evaluation reports.					
	The system can print reports of the evaluation.					
Reliability	The system can generate a report for faculty evaluation.					
	The system produces correct data through students and admin accounts.					
	The system can display student and faculty information.					
Usability	Can be understood, learned, used and appear attractive to the user.					
	Provides on-screen prompts and messages that are clear and helpful to the end users					

	It is user-friendly.					
	It is of great help to the end users in replacement to the manual system.					
Efficiency	The software respond time is appropriate.					
	The software execution time is appropriate.					
	The resources used are appropriate.					
	End users respond accurately and actively to the commands.					

CHAPTER 4

RESULTS AND DISCUSSION

4.1 Results by phase of study

Technical Description

An Online application is an application that uses a website as the interface or front-end. Using a regular browser, users can quickly access the application from any computer connected to the Internet. In contrast, traditional desktop apps, which are installed on a local computer, are not cloud-based.

The Online Faculty Monitoring and Monitoring Systems will facilitate the collecting and analysis of faculty evaluation data in less time. The Online Faculty Monitoring and Evaluation System is a paperless method in which the evaluator evaluates the teacher using the computer and the system.

The first objective of the study is to develop an Online Faculty Monitoring and Evaluation System.

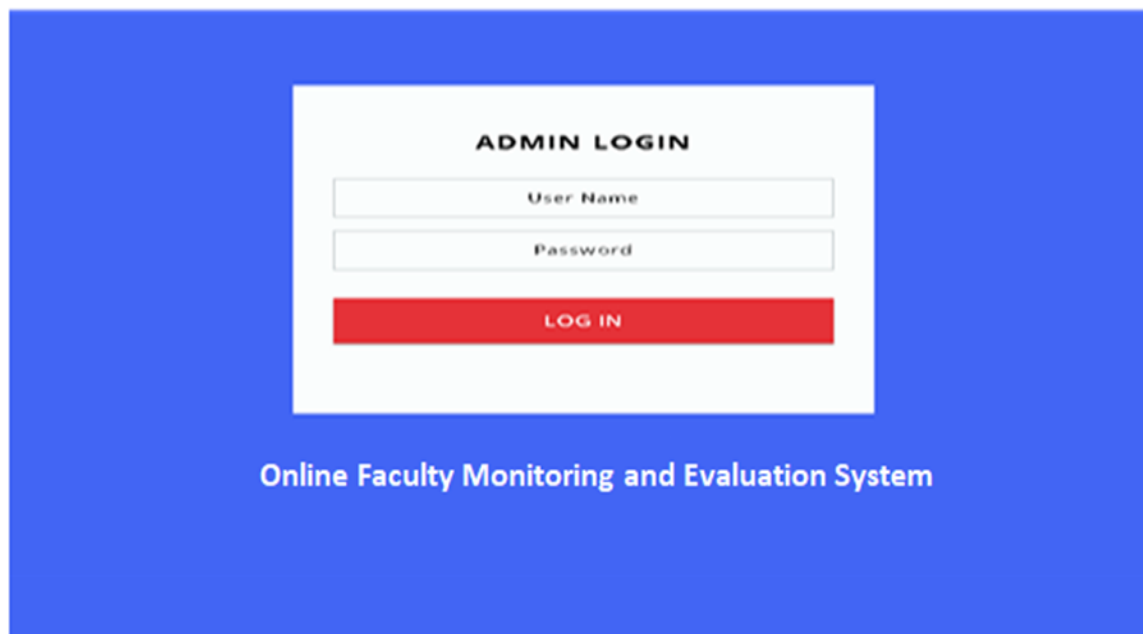
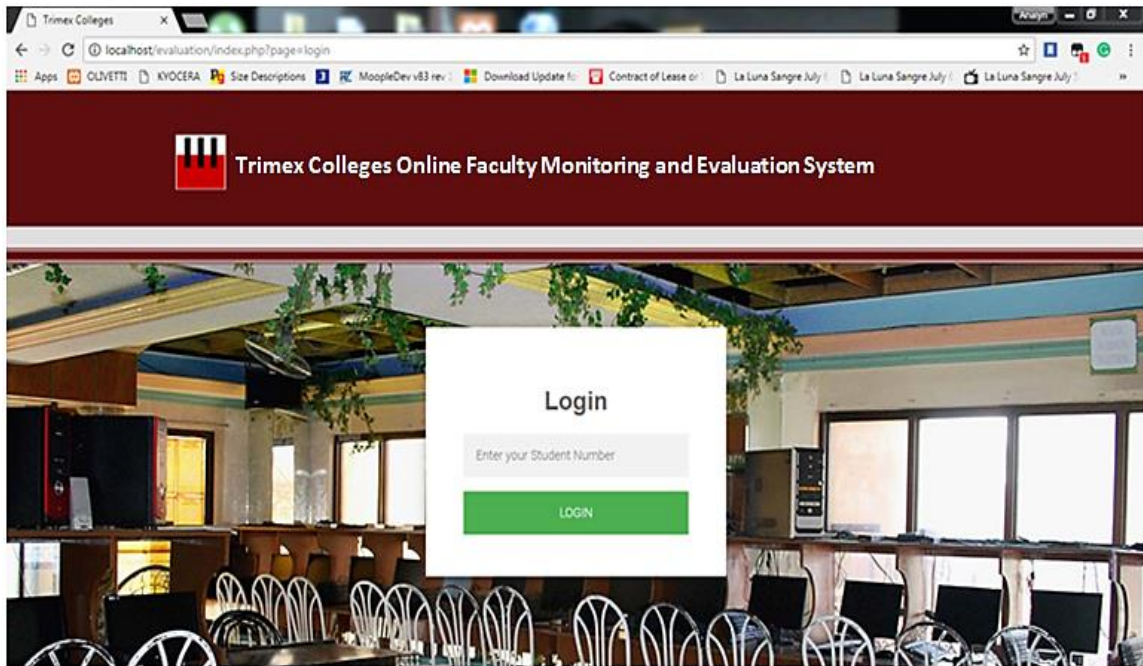
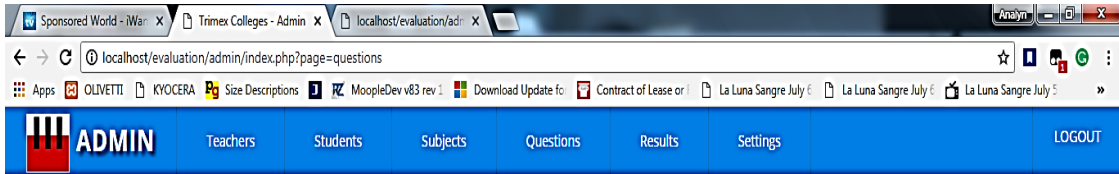


Figure 13: Online Faculty Monitoring and Evaluation System

The above figure shows the Web-Based Faculty Evaluation in which the student will log in and then select the name of the instructor to be evaluated.

The second objective of the study is to create a module that will administer questionnaire and generates faculty evaluation reports.



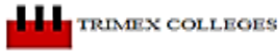
List of Questions

Category ID	Category Name	Action																		
1	Category 1	Add Question																		
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2	Category 2	Add Question																		
3	Category 3	Add Question																		

Page 1 of 1 Displaying 1 to 3 of 3 items

Figure 14: Questionnaire Management

The above figure shows the Questionnaire Management in which the student will login then provides the questionnaires and the list of instructors to be evaluated based on their subject and teacher in that subject. Then after the student filled up all the questions, it will be submitted and the grade for evaluation of each teacher will be automatically generated and can be viewed in the administrator’s account.



Instructor	Louie Agustin	
Total No. of Students :	3	Load: 24 Hours
OverAll Score	4.41	Note: Ranking not applicable
Remarks	Very Satisfactory	

5 - Outstanding 4 - Very Satisfactory 3 - Satisfactory 2 - Needs Improvement 1 - Poor

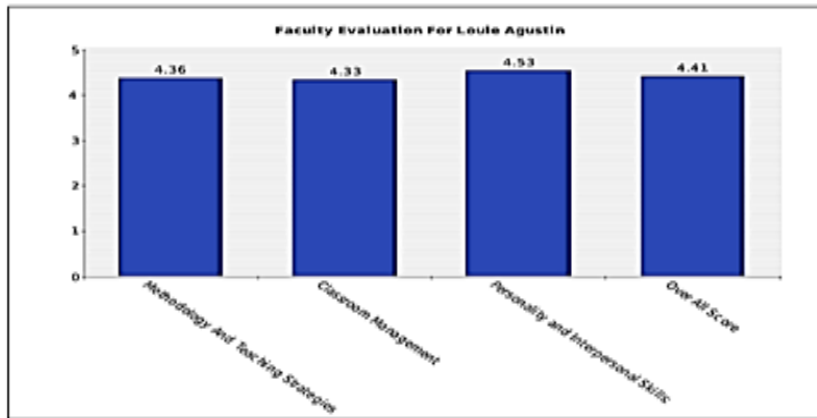


Figure 15a: Faculty Evaluation Report

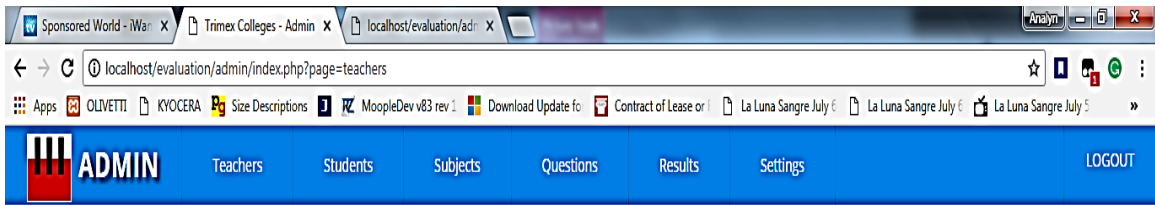
Fullname	No. of Students	Total Hours	MTS	CM	PIS	Overall Score
Louie Agustin	11	24	4.72	4.32	4.8	4.61
Airen Mesias	1	23	5	4	4.6	4.53
Ailene Carpio	4	20	4.77	4.63	4.1	4.5
Jessemiel Adraneda	2	18	4.75	4	4.7	4.48

Figure 15b: List of Instructor for Ranking Report

Fullname	Comments
Louie Agustin	magaling magaling.. good.. okay siya magturo...naintindihan namin... ang galing ni sir.... okay na okay po super good.. Good napakahusay po
Alren Mesias	okay naman si sir....
Ailene Carpio	shes good nice,.... very nice .. TANGGALIN
Jessemiel Adraneda	magaling siya good...

Figure 15c: List of Student’s Comment Report

The above figure 15a, 15b, and 15c had shown the Faculty Evaluation Report and the graphical representation of the results of the student evaluations.



List of Teachers

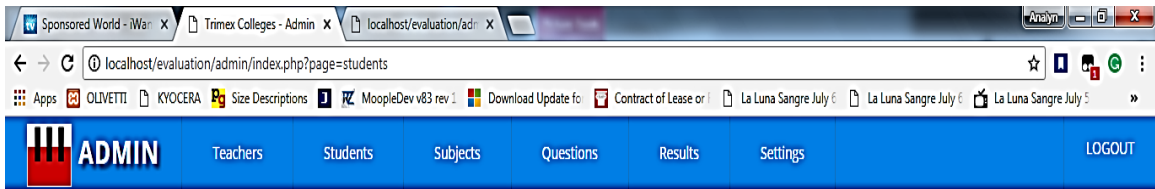
Faculty ID	Faculty Name	Total Hours	Action
12611819	Alren John Mesias	24	Assign Subject
12617829	Jessemiel Adraneda	18	Assign Subject
12629737	Ailene Carpio	20	Assign Subject
12672451	Ronaldo Dante Vega	30	Assign Subject
12690714	Louie Agustin	24	Assign Subject

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Displaying 1 to 5 of 5 items

Figure 16: Faculty Information

The above figure shows the list of faculty information including adding new faculties and updating the information.



List of Students

Student ID	Fullname	Course	Guardian	Contact	Address	Action
16-SH165	Fabular, Nolan V	GR12 - Information and Com	Edgardo R. Delina	09229300097	Zone 6, Malaban, Biñan City,	Assign Subject
16-W0857	Dela Marquez, Careen Joy R	Bachelor of Science in Busine	Cleofe R. Ramos	*	Blk 53 Lot 3 Acorn Loop Ever,	Assign Subject
17-SH5023	Sevillo, John Vincent M	GR11 - Science, Technology, I	Jeanette Sevillo	09357916537	252 Purok 3, Brgy. Tubigan, E	Assign Subject
17-W0597	Bonion, Mariane C	Bachelor of Science in Office	Kenn John C. Binion	09953952521	New Canlubang Village Pacia	Assign Subject
08-A0001	Gabion, Cecilia B	Bachelor of Science in Accou	Zenaida B. Gabion	9186413210	Area 1 B-2 L-26 G.M.A. Cavite	Assign Subject
08-A0079	Daquis, John Mark G	Bachelor of Science in Inform	Raquel Daquis	09989812151	Guico Camp San Jose Biñan I	Assign Subject
08-A0494	Almodovar, Kenan Patrick G	Bachelor of Science in Inform		09353262175	907 F. Gomez St., Brgy. Ibaba	Assign Subject
09-A0101	Fuentes, Kevin Jarron T	Electronics and Information	Teng Orteg	*	B-20 L-22 Bacolod St.South C	Assign Subject
09-A0273	De Dios, Antonio Jr. B	Bachelor of Science in Inform	Maritoni De Dios	0919229071409208723410	3417 Almeda Subd. Delapaz	Assign Subject
10-A0022	Santos, Bonn Rafael H	Bachelor of Science in Busine	*	*	P3 Brgy. Aplaya, Sta.Roa, Lag	Assign Subject

Figure 17: Student Information

The above figure shows the list of students who are presently enrolled at Trimex Colleges.

The third objective of the study is to create a module that will accept student evaluation.

The screenshot displays a web-based questionnaire interface. At the top, a dark red header contains the logo and text "Trimex Colleges Online Faculty Monitoring and Evaluation System". Below the header, a navigation bar includes a "Questionnaires" tab and a user greeting "Welcome! Fabular Nolan V" with a "Logout" link. The main content area is titled "Questionnaires" and features a form with the following elements:

- Select teacher:** A dropdown menu currently showing "Select Professor".
- Semester:** A text input field containing "1ST".
- Academic Year:** A text input field containing "2017-2018".
- Legend:** A row of five radio buttons with corresponding labels: "5 - Outstanding", "4 - Very Satisfactory", "3 - Satisfactory", "2 - Needs Improvement", and "1 - Poor".
- Section Header:** "I. METHODOLOGY AND TEACHING STRATEGIES".
- Questions:** A list of six statements, each followed by five radio buttons for rating:
 1. Encourage maximum participation of Students in all activities.
 2. Makes use of whiteboard/audio visual materials like pictures, graph and other instructional materials.
 3. Provides students of more opportunities for learning by giving assignments, research work which would be accomplished within allotted time.
 4. Encourage students to ask intelligently and relevant questions.
 5. Evaluate students performance by giving quizzes from time to time.
 6. Integrates values and other related fields into the subject matter.

Figure 18: Student Evaluation

The above figure shows the questionnaire design of the faculty evaluation.

The fourth objective of the study is to create a module that will evaluate faculty according to the following criterias:

a. Methodology and Teaching Strategies

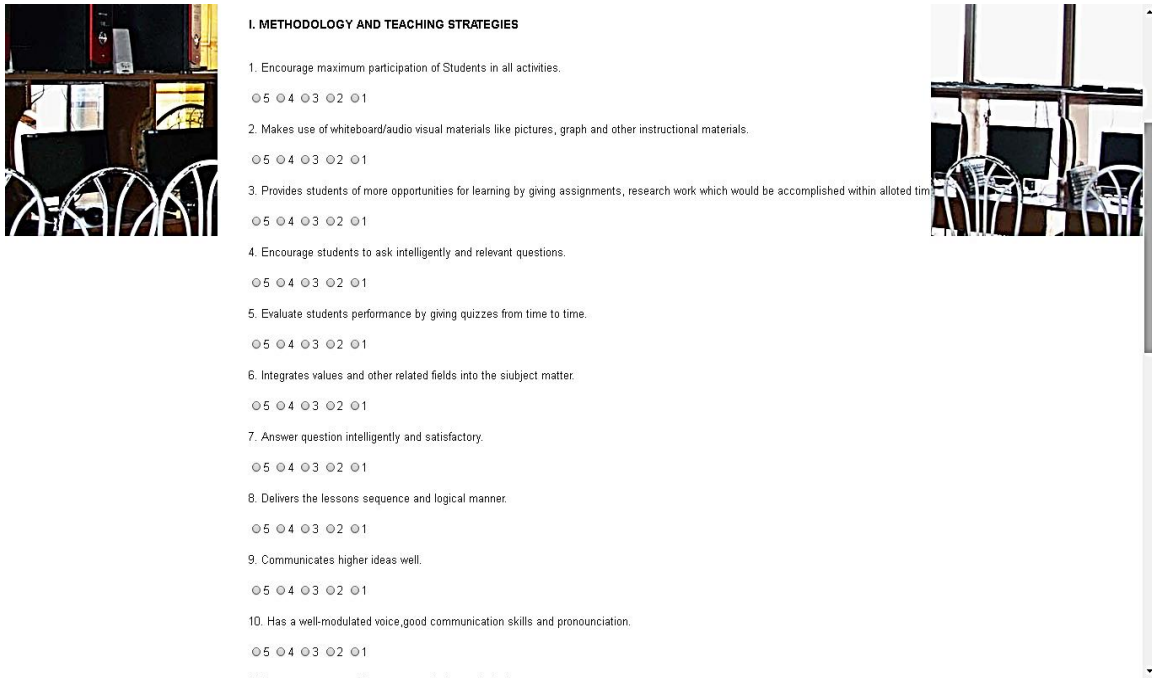


Figure 19: Methodology and Teaching Strategies

b. Class Room Management

II. CLASSROOM MANAGEMENT

1. Maintains classrooms discipline, observes daily classroom, routines, like checking of attendance, uniforms, ID and creating classroom environment conducive to learning.

5 4 3 2 1

2. Sees to it that the room is clean and orderly at all.

5 4 3 2 1

III. PERSONALITY AND INTERPERSONAL SKILLS

1. Project self-confidence, respects, opinions, suggestion and comments of students.

5 4 3 2 1

2. Project respectable and decent image.

5 4 3 2 1

3. Integrates positive values in the lesson.

5 4 3 2 1

4. Maintains proper attire and well-grooming.

5 4 3 2 1

5. Always punctual.

Figure 20: Classroom Management

c. Personality & Interpersonal Skills.

III. PERSONALITY AND INTERPERSONAL SKILLS

1. Project self-confidence, respects, opinions, suggestion and comments of students.

5 4 3 2 1

2. Project respectable and decent image.

5 4 3 2 1

3. Integrates positive values in the lesson.

5 4 3 2 1

4. Maintains proper attire and well-grooming.

5 4 3 2 1

5. Always punctual.

5 4 3 2 1

Comments and Feedback()

Submit

Figure 21: Personality and Interpersonal Skills

4.2 Verification studies

Software Evaluation Using ISO9126

The study is to evaluate the acceptability of the system using the ISO9126. The software was assessed using the set of quality metrics/criteria stated to validate the effectiveness of the software being developed. Criteria rank according to the opinion of respondents after evaluating the software, five being the highest and one as lowest.

Table 18: Weighted Mean Responses in the Functionality Criteria

The response in the Functionality Criteria:

Student Respondents

Criterion	Weighted Mean
Functionality	
The system has a working system security such as login.	5.0
The student can evaluate the instructor performance	5.0
The system displays the students' and faculty information	5.0
The system has the capacity for multi-user processing.	5.0
The system can generate faculty evaluation reports.	5.0
The system can print reports of the evaluation.	5.0
Average	5.0

There were 50 responses among the Student Respondents who strongly Agreed that the software/system is fully functional regarding detecting, the total weighted mean for the student respondents for the functionality of the system is 5.0.

**Table 19: Weighted Mean Responses in the Reliability Criteria
Student Respondents**

Criterion	Weighted Mean
Reliability	
The system can generate a report for faculty evaluation	5.0
The system produces correct data through students and admin accounts	5.0
The system can display student and faculty information.	5.0
Average	5.0

The total weighted mean of 5.0 was justified through the reliability of the system software; all of the student respondents Strongly Agreed that the reliability of the system can easily generate reports and shows accurate data of the students.

**Table 20: Weighted Mean Responses in the Usability Criteria
Student Respondents**

Criterion	Weighted Mean
Usability	
Can be understood, learned, used and appear attractive to the user.	4.8
Provides on-screen prompts and messages that are clear and helpful to the end users	4.6
It is user-friendly.	4.8
It is of great help to the end users in replacement to the manual system	4.8
Average	4.75

The students as respondents strongly agreed that the software is usable and user-friendly. On the other hand, only one respondent was dissatisfied with software which is on the Moderately Agreed response. It is evidently seen in the weighted mean, 4.75 of the Usability criteria under students' respondents' category. The resulted means of the proposed system can be easily learned, understood, beneficial and attractive to the user.

**Table 21: Weighted Mean Responses in the Efficiency Criteria
Student Respondents**

Criterion	Weighted Mean
Efficiency	
The software respond time is appropriate	4.6
The software execution time is appropriate	4.9
The resources used are appropriate.	4.7
End users respond accurately and actively to the commands.	4.6
Average	4.7

There were a total of 31 responses from the students' respondents who strongly agreed that the software is capable of providing appropriate responses while performing its function. On the other hand, there were six students who Agreed that the system uses appropriate storage resource of the computer and 3 moderately agreed. The weighted mean, 4.68 of the Efficiency criteria under the Barangay health workers respondents group, falls on the Highly Acceptable scale.

The result means 4.7 that the proposed system is efficient, and users can respond correctly is evident.

**Table 22: Student Respondents Summary of the Software
Evaluation of Faculty Evaluation System**

Criterion	Mean	Interpretation
A. Functionality	5.00	Highly Acceptable
B. Reliability	5.00	Highly Acceptable
C. Usability	4.75	Highly Acceptable
D. Efficiency	4.7	Highly Acceptable

In general, the software yielded a total weighted mean of 4.85, from both students' respondents which fall on the Highly Acceptable in the Likert scale. Also, it is already proven that there is no significant difference among the response of the compared means of the two categories of respondents.

CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 SUMMARY

Teacher evaluation is typically regarded as the most effective approach for improving the quality of education in schools. In almost every stage of the decision-making process, timely and reliable information is useful.

The Online Faculty Monitoring and Evaluation System will allow for easier data collecting and more correct data analysis of faculty evaluation in less time. The Online Faculty Monitoring and Evaluation System is a paperless method in which the evaluator evaluates the teacher using a computer and the system.

5.2 CONCLUSIONS

Based on the aims of the study and the results of the evaluation. The following conclusions were drawn;

1. With the use of web technology, the manual process of evaluating faculty is much easier to manage and the results of the faculty evaluation are obtained much faster.
2. Generating reports with the help of internet browsers is convenient and flexible for printing. Managing questionnaires is made easier with the use of the web interface.

3. Students can review faculty members online, which reduces the need for paper or manual processes.
4. Using questionnaire criteria in conjunction with internet browsers to evaluate faculty members makes the process both convenient and versatile.

5.3 RECOMMENDATIONS

The researcher of the study further recommends the following:

1. Faculty assessment will be used more effectively if it is integrated with the school course scheduling system.
2. Developing an Android application will allow students to take full use of the faculty assessment system both on and off campus.
3. It is also possible to include additional forms in order to enhance feedback retrieval on the screen itself.