DESIGN AND IMPLEMENTATION OF A LOCAL HOST DATABASE QUIZ APPLICATION

AUCHI POLYTECHNIC, AUCHI

BY

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BEING A PROJECT WORK SUBMITTED TO THE DEPARTMENT OF COMPUTER SCIENCE, AUCHI POLYTECHNIC, AUCHI

IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF HIGHER NATIONAL DIPLOMA IN COMPUTER SCIENCE

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CERTIFICATION

I, the undersigned certify that this project work was carried out by Mr.……. of the Department of Computer Science.

I also certify that the work is adequate in scope and quality in partial fulfilment of the requirements for the award of Higher National Diploma (HND) in computer science.

MR. MOMODU MUSTAPHA

(Project Supervisor) Date

MR AKHETUAMEN, S.O.

(Head of department of computer science) Date

DEDICATION

This Project is dedicated to God Almighty, for his Grace towards my life and the Strength, he has given me to finish this project.

ACKNOWLEDGEMENT

I wish to express my thanks and appreciation to God Almighty for his guidance and protection throughout this program. I am also using this medium to express my heartfelt gratitude to those who have supported this project to a successful completion.

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Lastly my regards goes to my late brothers, Mr. Collins Oko-oza and Mr. Nicholas Oko-oza. I pray may their gentle soul rest in perfect peace, Amen.

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ABSTRACT

Computers are well known for their wide range of uses especially in mathematical and scientific field but little or no thought has been given to designing a complete and thorough local host quiz application on a computer in our immediate environment and because of this it now brings us to the need to design and implement a local host database quiz application for Auchi Polytechnic, Auchi. concerning methodology for this study, the data used for the development of the research was gotten from internet, textbook and articles. The contribution of other researchers on the subject were examined so as to gather relevant information. Tools like MySQL and PHP were put to use in the development of this project. With the research carried out we thereby recommend that academic institutions should explore the vast opportunities provided by ICT in the educational system especially as it concerns student assessment.

CHAPTER ONE
INTRODUCTION

1.1 BACKGROUND OF STUDY

In the recent years, as a result of the development of Internet technology, online examination systems have gained remarkable preference and acceptance in the education industry because they have modernized the process in which students prepare and appear for their examinations (Younis & Hussein, 2015).

Also there has been a growing interest of light open-source content management systems (CMS) such as WordPress or Drupal, that configured in an appropriate way, allow a teacher to set up quickly and easily an open environment for a virtual class-room/examination site.

Content management system (CMS) is a software that help us make websites easier, faster, browser compatible and responsive websites in a very short time with the powerful inbuilt features. The basic advantages of the most popular CMS are the following:

• Security

• Usability

• Documentation / Support

• Expansion and correction

• Easy administration / installation

B. WordPress

WordPress is a free and open-source web software tool and a content management system (CMS) based on PHP and MySQL. It has many features including a plugin architecture and a template system. WordPress is among the most popular systems in use on the Internet. WordPress provides security and easy-to-use programming software both for developers and website administrators and there are thousands of developers who contribute to its source code optimization (Fernandes & Vidyasagar, 2015). Plugins are tools which extend the functionality of WordPress. The core of WordPress is designed to be clean, to maximize flexibility and minimize code bloat. Plugins offer custom functions and features so that each user can tailor their site to their specific needs (Koskinen et al, 2012), (Williams et al, 2011), (Hills, 2016). The functions that provided by WordPress are used in order the development to be done in its own environment. The application form is the plugin so both the installation/uninstallation can be done easily by the users.

While there are thousands of WordPress templates and plugins available, the WordPress system still has its limitations. because it is a template base service, you must begin with a pre-built website rather than creating pages from scratch.

Additionally, you cannot insert script or maintain a database with the same level of control that a custom website offers.

Further More

Manual Examination System is replete with several problems. A cursory glance at

Manual Examination Administration System reveals cases of examination malpractice and other immoral acts committed by students, which violates the rules and regulations of universities as it concerns the administration of examination as well as the human moral content (Heidi & Ellis, 2013).

This has taken a tool from the Nation, as it produces half-baked graduates who cannot compete with university graduates from other nations of the world in the labor market. The need to protect the image of the Nigerian nation as well as the University System is very pertinent. In furtherance, during manual computation of results, errors may arise due to "omission" or "commission". There are also cases of missing examination scripts during marking. There is also a problem of time wasting, among others. This research suggests that if an efficient and effective online examination system is developed, where examinations will be taken online, and results computed and released immediately, as well as stored in a central database for documentation and future planning and evaluation purposes, there shall be relative balance and harmony within the University System. The staff will take the advantage of time that would have been spent on marking examination and preparing results to enable them do their research work. This will also cause the unserious students to be committed to their studies.

1.2 STATEMENT OF THE PROBLEM:

First Problem is with the Existing system:

The first problem is that there are lots of hard copied documents being generated. This brings us to the age-old discussion of keeping information in the form

databases versus keeping the same on sheets of paper. Keeping the information in the form of hard-copied documents leads to the following problems.

Second Problem is The Drawback in the Existing System:

Lack of space: It becomes a problem in itself to find space to keep the sheets of paper being generated as a result of the ongoing discussion. The documents being generated are too important to be ill-treated.

Filing poses a problem: Filing the documents categorically is a time consuming and tedious exercise.

Filtering is not easy: It becomes hard to filter relevant documents for the irrelevant ones if the count of the same crosses a certain manageable number.

Reviewing becomes time-consuming: All the process done manually at the centers and all the records are maintained on the papers. So, the maintenance of the record is very difficult in the departments and as well as it's very difficult for the workers to check the record. The Existing system is paper based, time consuming, monotonous, less flexible and provides a very hectic working schedule. The chance of loss of records is high and also record searching is difficult. Maintenance of the system is also very difficult and takes lot of time.

Result Processing: Is slow due to paper work and requirement of staff.

1.3 AIM OF THE STUDY AND OBJECTIVES:

The aim of the study is to provide facility to conduct online and offline examination worldwide, with the following objectives:

i. It saves time as it allows number of students to give the exam at a time and displays the results as the test gets over, so no need to wait for the result. It is automatically generated by the server

ii. Administrator has a privilege to create, modify and delete the test papers and its particular questions. User can register, login and give the test with his specific id, and can see the results as well.

iii. The ultimate aim of this project is to help the quiz analysis and facilitate the faculties the faculties for easy evaluation of the students and generation of the automatic score cards.

iv. The system shall display the set of questions with certain rules. It also displays the category for which the students wish to answer.

v. Once the student has completed choosing the category starts answering the questions. The mark is given and report is generated based on the correct answers.

1.4 SCOPE OF THE STUDY:

Scope of this project is very broad in terms of other manually checking yourself. Few of them are: -

i. This can be used in educational institutions as well as in corporate world.

ii. Can be used anywhere any time as it is a web-based application (user Location doesn't matter).

iii. No restriction that examiner has to be present when the candidate takes the test.

1.5 FUNCTIONAL CAPABILITIES:

PERFORMANCE LEVEL: The scope of this project gives immense opportunity for the students to know their levels in quiz.

It provides effective software so as to help the students as well as the evaluators who are involved in evaluating the student's performance.

DATA STRUCTURES: The data in this project are maintained in the tabular form using MYSQL in the form of database. It provides easy access to the user. Easy category questions are maintained in the database which provides easy for the user to access and choose the category.

SAFETY: No data loss occurs in the quiz system.

1. It is very much protected in such a way that it gives permission to the students to access only when the username and password is correct.
2. The results are produced electronically so that nobody is prone to mistakes.

RELIABILITY: We assure that the project is completely authenticated in order to enhance security and corruptions of database as well as the software. The person is given access only if he/she has a valid username and password.

QUALITY: The project is developed with the help of PHP 8.0.1 and PHP 8.0 Framework which meets the requirement of the user, the project is checked whether the phases individually have a served its purpose.

1.6 DEFINITION OF TERMS:

FRAMEWORK: A framework is a collection of programs that do something useful and which you can use to develop your own applications.

PHP: PHP which means Hypertext Processor, is a popular general-purpose scripting language that is especially suited to web development. Fast, flexible and pragmatic, PHP powers everything from your blog to the most popular websites in the world.

MYSQL: MySQL which means My Structured Query Language is a language used for relational and tabular database representation, and it is widely use and popular all around the world.

JAVASCRIPT: JavaScript is combined with HTML and CSS to create dynamic HTML pages. JavaScript is commonly used on the internet to create web pages that respond to user actions, like when the user moves a mouse pointer over an image or clicks a form button. JavaScript was used for the client-side scripting and security; it was also integrated with jQuery and ajax to create Model Windows used in the application like

CSS: is the language for describing the presentation of web pages, including colors, layout, and fonts.

BOOTSTRAP: Bootstrap is a free, open-source front-end development framework for the creation of websites and web apps. Designed to enable responsive development of mobile-first websites, Bootstrap provides a collection of syntax for template designs

CHAPTER TWO

LITERATURE REVIEW

2.0 LITERATURE REVIEW

According to (Alabi et al, 2012) the history of computer-based testing began in the early 1970s with the introduction of the early computers in the 1970s which revealed the potentials of using technology not only for new learning environments but also for completely new settings in the design and administration of tests, E-assessment originated with the PLATO system from the University of Illinois and was commercialized by Control Data Corporation in the 1970s, starting with a computer testing system for National Association of Securities Dealers (now the Financial Industry Regulatory Authority).

A user assessment survey on the use of a Local Host Quiz System, revealed that the setting, conducting and grading of examination as well as generating and managing results become highly time-efficient, less prone to human error, more secured and at the comfort of both the lecturers and the students and so is preferred over the existing 'pen and paper' platforms for conducting examination. In the same vein, online quiz in a test conducted at the Mansoura University, Egypt, proved the validity of using a Local Host Quiz System for the evaluation of a large number of students in Egyptian institutions. It therefore implies that a well- structured Computer-Based Testing System could improve the teaching level by providing better technical support.

Students in tertiary institutions of Nigeria are primarily assessed based on the use of written examinations. This has resulted in the common reoccurrence that the results for these examinations are delayed and even in some cases, not released

especially where there are large classes or public examinations. This is undesirable to the Nigerian students who will be unable to immediately track academic grades at the end of each semester.

This problem could be due to the delay in the marking of the students' answer sheets, loss of answer sheets and even in some cases scrupulous practices by some lecturers in the manipulation of the scores of the students. With the use of this Local Host Quiz System, the challenge of a delayed notification of a student total score after final examination on a particular course will be reduced. The system will manage different aspects of the student's assessment which include test, attendance, assignments, mid-semester and final examination. This work focuses on the roles of the student, the lecturer and the system administrator in ensuring that the Local Host Quiz System provides a timely and dependable system for students' assessment and faculty members' use in educational institutions such as secondary and tertiary schools as well as professional training centres.

The question types are multiple choice questions and the software will be limited to a single department or course of study. Research outcomes have supported the fact that when students are motivated and testing conditions are equivalent, there are no differences between the scores obtained via Local Host Quiz System or PPT (Alabi et al, 2012)

2.1 PHP (HYPERTEXT PROCESSOR)

According to (Hills & Klint, 2014) PHP is currently one of the most popular programming languages, widely used in both the open-source community and in industry to build large web-focused applications and application frameworks. Eshkevar, Dos Santos, Cordy, & Antoniol also add that PHP is by far the most

popular WEB scripting language, accounting for more than 80% of existing websites.

However, Scripting languages such as PHP have been criticized as inadequate for supporting maintenance of largescale software projects.

Kyriakakis & Chatzigeorgiou attempt to provide insight into the way that PHP applications evolved over time. They examined several aspects of their history including the amount of unused code, the removal of functions, the use of libraries, the stability of their interfaces, the migration to object-orientation and the evolution of complexity.

According to (Merlo et al, 2007). This evolution is brought about because a web application (Build in PHP) evolves, new versions of programs, interactions and functionalities are added and existing ones are removed or modified. Web applications require configuration and programming attention to assure security, confidentiality, and trustiness of the published information. During evolution of Web software, from one version to the next one, security flaws may be introduced, corrected, or ignored.

This paper also takes into consideration that PHP is dynamically typed, which means that variables take on the type of the objects that they are assigned, and may change type as execution proceeds. While some type changes are likely not harmful, others involving function calls and global variables may be more difficult to understand and the source of many bugs. Hack, a new PHP variant endorsed by Facebook, attempts to address this problem by adding static typing to PHP variables, which limits them to a single consistent type throughout execution (Eshkevar et al, 2015).

2.2 SOFTWARE EVALUATION

According to (Herraiz et al, 2013) Software evolution deals with the process by which programs are modified and adapted to their changing environment. The aim of Lehman's research was to formulated scientific theory of software evolution. As any sound theory, it was meant to be based on empirical results and aimed at finding invariant properties to be observed on entire classes of software development projects.

Software evolution is also a crucial ingredient of so-called agile software development processes, of which extreme programming (XP) is probably the most famous proponent. In brief, agile software development is a lightweight iterative and incremental (evolutionary) approach to software development that is performed in a highly collaborative manner and explicitly accommodates the changing needs of its stakeholders, even late in the development cycle, because this offers a considerable competitive advantage for the customer. In many ways, agile methods constitute a return to iterative and incremental development as practiced early in the history of software development, before the widespread use of the waterfall model. (Mens & Demeyer, 2007).

Mens & Demeyer go on to say, today software evolution has become a very active and well-respected field of research in software engineering, and the terms software evolution and software maintenance are often used as synonyms. For example, the international ISO/IEC 14764 standard for software maintenance, acknowledges the importance of pre-delivery aspects of maintenance such as planning.

2.3 DIFFICULTIES IN SOFTWARE EVOLUTION

According to (Mens & Demeyer, 2012) the main difficulties of software evolution is that all artifacts produced and used during the entire software life-cycle are subject to changes, ranging from early requirements over analysis and design documents, to source code and executable code. This fact automatically spawns many sub disciplines in the research domain of software evolution, some of which are listed below: Requirements evolution. The main objectives of requirements engineering are defining the purpose of a software system that needs to be implemented. Requirements evolve because requirements engineers and users cannot predict all possible uses of a system, because not all needs and (often mutually conflicting) goals of the various stakeholders can be taken into account, and because the environment in which the software is deployed frequently changes as well. Architecture evolution. Based on an (initial) description of the software requirements, the overall software architecture (or high-level design) and the corresponding (low-level) technical design of the system can be specified. These are inevitably subject to evolution as well. Data evolution. In information systems and other data-intensive software systems it is essential to have a clear and precise description of the database schema.

Runtime evolution. Many commercial software systems that are deployed by large companies need to be constantly available. Halting the software system to make changes cannot be afforded. Therefore, techniques are needed to change the software while it keeps on running. This very challenging problem is known under a variety of terms, including runtime evolution, runtime reconfiguration, dynamic adaptation and dynamic upgrading.

Service-oriented architectures (SOA) provide a new paradigm in which a user-oriented approach to software is taken. The software is developed in terms of which services are needed by particular users, and these users should be able to easily add, remove or adapt services to their needs. While this approach has many similarities with the component-oriented approach, services are only bound together at runtime, whereas components are statically (i.e., at design time) composed together. A service-oriented approach thus promises to be inherently more flexible than what is available today. This is crucial, especially in e-commerce applications, where rapid and frequent change is a necessity in order to respond to, and survive in, a highly competitive market. Language evolution. When looking at languages (whether it be programming, modelling of formal specification languages), a number of research directions come to mind. The first one is the issue of coevolution between software and the language that is used to represent it. Both are subject to evolution, albeit at different speed. The second challenge is to provide more and better support for evolution in the context of multi-language software systems. A third challenge is to improve the design of languages to make them more robust to evolution (e.g., traits). This challenge has always been the main driver of research in design of new computer languages. Unfortunately, every new programming paradigm promises to improve the software development process but introduces its own maintenance problems. This was the case for object-oriented programming (where the inheritance hierarchy needs to be mastered and kept under control when evolving software), aspect-oriented programming (where aspects need to be evolved next to the base code, component-oriented programming, and so on. In general, every new language or technology should always be evaluated in the light of its potential impact on the software's ability to evolve.

2.4 PHP APPLICATIONS

The major reason in selecting acknowledged projects with a long history, large number of committers and even larger number of users. The majority of open-source projects are abandoned after a short time period, rendering them inappropriate for systematic analysis of programming and maintenance habits.

The case study has been conducted (Kyriakakis & Chatzigeorgiou, 2014), The following five open-source projects implemented in PHP:

1. **WordPress:** The most popular blogging software; it has a vast community of both contributors and active users.
2. **Drupal:** One of the most advanced CMS (Content Management System). It is also characterized by a large and active community
3. **PhpBB:** One of the most widely used forum software.
4. **MantisBt:** Probably the most popular bug tracking application written in PHP.
5. **PhpMyAdmin:** The well-known MySQL administration tool.

(Kyriakakis & Chatzigeorgiou, 2014) show some statistics about the selected projects.

Cumulatively, we have studied 390 official releases aggregating to 50 years of software evolution.

TABLE 1. (open source project implemented in php)

Project	Years	First		Last		Number of Releases
		Release	Year	Release	Year	
WordPress	9	1.5	2005	3.6. I	2013	71
Drupal		40.0		723	2013	120
phpBB	12	2.0.0	2002	3.0.12	2013	37
MantisBt			2006	1215	2013	33
phpMyAdmin	9	2.9.0	2006		2014	129

(Letarte et al, 2011) extracted the security model is from PHP source code using a reengineering approach. First a PHP parser is used to extract an intraprocedural control flow graph (CFG) for all the functions of the system. Intraprocedural information is also extracted to represent the conservative calling relationship between functions of the whole system.

The above are the majorly reviewed approaches that how given information this review, which has organized the various aspects of evolution of PHP applications.

2.5 SOFTWARE MATURITY

In scripting languages, a major source of unused code is the employment of third-party libraries, which at the same time is an accepted good practice in software development and a possible indication of maturity (Kyriakakis & Chatzigeorgiou, 2014).

In this context, Kyriakakis & Chatzigeorgiou investigated the amount of library code being used over time in each system. Another factor implying software maturity is the stability of the corresponding APIs, and therefore, six classes of possible API changes were examined.

2.6 LIBRARY USAGE

PHP is a rather new programming language and according to Kyriakakis & Chatzigeorgiou has gained popularity during the last decade. An indirect indication of Maturity for a given programming language is the development of third-party libraries and the employment of them in other projects. In three out of the five projects in our study, we have observed a strong trend in using such libraries. As Tulach observes, the trend in modern software development is the use of such pre-made building blocks in order to ease and speed up the development of applications. As we have shown, a side effect is the introduction of unused code blocks, due to the scripting nature of the language. However, the fact that the library's source code becomes part of the system's source code enables us to measure the ratio of library code over system code, something that is not straightforward with compiled languages.

2.7 INTERFACE STABILITY

The stability of an interface can be characterized by the number and types of changes to the functions' signatures. According to the strict PHP definition, a function signature is only the name of the function, but this does not reflect the interface correctly, since no parameters are included. To track interface changes in more detail, Kyriakakis & Chatzigeorgiou have also considered the mandatory and optional function parameters as well as the default values of the optional

parameters. For each version of the examined systems, they have computed the ratio of changes over the total number of signatures. Next, they computed the mean of all versions for each project and the results are summarized. The values for cases Cl to C5 are extremely low, considering the almost ten years of evolution for each project. This fact implies that development teams have paid attention in order not to break backward compatibility and that the corresponding APIs are mature, Changes of the 6th type exhibit a mean ranging from 3.75% for phpMyAdmin, to 14.22% for phpBB, providing further support to the aforementioned claim, since despite the implementation changes for a number of functions, the corresponding signatures remained stable.

2.8 SOFTWARE QUALITY

Capability of a software product is to conform to requirements. There are two common aspects of quality: one of them has to do with the consideration of the quality of a thing as an objective reality independent of the existence of man. The other has to do with what we think, feel or sense as a result of the objective reality. In other words, there is a subjective side of quality. the word quality has multiple meanings. Two of these meanings dominate the use of the word

l. Quality consists of those product features which meet the need of customers and thereby provide product satisfaction.

2. Quality consists of freedom from deficiencies, Nevertheless, in a handbook such as this it is convenient to standardize on a short definition of the word quality as "fitness for use". Following the definition of quality consists of freedom from deficiencies.

According to (Bergmann & Priebsch, 2011) Complement the study with a rather traditional measure, they computed McCabe's cyclomatic complexity (CCN),

thereby investigating if PHP practitioners implement comprehensible and thus maintainable code. They calculated CCN per function and then obtained the average CCN of all functions for each version. To make results more readable they categorized the functions according to their CCN in three ranges. A value of 10 is usually considered as a critical threshold.

To enable a more fine-grained classification and to comply with critical levels identified by various quality assessment tools, they considered a second threshold at the value of 5. As a result, values in the range [0...5) imply excellent readability, [5- 10) medium complexity but still readable code and values higher than 10, code that should be examined closely. Next, we calculated the percentage of functions belonging to each range

2.9 ADOPTATION OF OBJECT-ORIENTED PROGRAMMING (OOP)

Nowadays there is no exact definition of the object-oriented programming (OOP) or the object- oriented programming language. In literature, various authors give a different explanation of these terms. Based on these definitions they define the object-oriented programming language as a programming language, basic elements are objects that have their own attributes and methods, and forming a hierarchically organized classes of objects.!”” #$%&’ () *#) *+&#’/)’& Object is a model (abstraction) of a real essence in a programming system.

Class: is an abstract declaration of attributes and methods for a group of similar objects which called instances of class.

Attribute: is a parameter declared in a class which characterizes the object (class instance).

Method: is declared in a class procedure which defines behavior of class instances' general, the object-oriented approach to development of programs based on four main mechanisms: abstraction, encapsulation, polymorphism and inheritance.

Abstraction: is the process of identifying of the essential characteristics of an object that distinguish it from all other kinds of objects and thus providing crisply defined conceptual boundaries, from the Viewpoint of the observer.

Encapsulation: is the process of compartmentalizing the elements of an abstraction that constitute its structure and behavior

Polymorphism: is the ability of being able to assign a different meaning or usage to something in different contexts and the property of an object respond to a query according to its type.

Inheritance: is a mechanism to declare new data types on the basis of existing types in such way that the attributes and methods of the base types become the members of the subtype.

Object orientation in PHP was fully supported in version 5.3, but it was partially supported and used few years before that, staring in early 4.x versions. So, there was a period where procedural systems could migrate code to classes.

present the ratio of the number of methods over the total number of functions and class methods of the system code, excluding third party libraries to show the trend of converting the core codebase of the systems to classes. They observe that Drupal after a long period of denial to the Object-oriented paradigm, even eliminating the small fraction of classes that existed in the early versions, made a

turn in version 7.0 with the introduction of classes. The Project was a milestone in the project's history, it massively adopted object orientation.

WordPress keeps it's slow but steady trend to object orientation, but the huge user contributed code in plug-ins and themes keeps the development team from making major rewrites to the public API of the application. Instead, the developers gradually perform refactoring applications to the internals of the system without breaking backward compatibility, On the other hand, phpMyAdmin that is a widely used project, found in almost any Linux powered web server, has a powerful momentum towards being a fully object-oriented system. This is due to the minimal number of user plug-ins or themes, entailing no threat for breaking the public API of the application.

They concluded that migrating applications from procedural to the object-oriented paradigm is not only a matter of developers' will or implementation language, but if the project can afford the cost of breaking backward compatibility imposing significant issues to their clients.

2.10 SECURITY

According to (Letarte, et al, 2009), Web applications require configuration and programming attention to assure security, confidentiality, and trust of the published information. During evolution of Web software, from one version to the next one, security properties may change and possible changes may include new flaws or corrections. Changes to security properties, including access control privileges, can be monitored by observing and analyzing changes between security models extracted from different versions of an application.

Property Satisfaction Profiles (PSP), derived from formal security models is presented. They are used to investigate the evolution of the security models

extracted from several versions of a Web application. The motivation comes from the need for observing and comparing security models along the evolution of Web applications.

In previous research work by (Merlo et al, 2007), the authors have investigated the evolution of security flaws in Web applications using flow analysis-based vulnerability detection.

The proposed PSP have been used to monitor security model evolution across several versions of a small PHP open-source system, phpBB that implements a bulletin board. Model evolution analysis allows identifying changes in security levels between consecutive versions and may help developers to focus their validation effort on changes at security sensitive statements. Extraction and validation show a linear memory and execution time complexity and are reasonably fast in practice. Required execution time for parsing, extraction of Security models and PSP computation take around 44 s. for each individual version and 1349 s. for the 31 versions. Evolution analysis takes 20 s. for all the versions of phpBB. Future research may follow the perspectives of extending experiments to larger and more diversified systems to better assess performance. Also, extensions to the presented approach should be conceived to address more complex security models (Letarte et al, 2011).

2.11 SUMMARY OF ISSUES DISCUSSED

The overview of the reviewed Topic with the unit of analysis and the conclusions derived based on the findings for each project is provided in Table YES implies that the derived conclusion can be considered as validated for the corresponding project, while a NO implies that the conclusion is not validated.

CONCLUSION

The various aspects of the reviews done in this paper are showing how PHP has evolved from a simple web scripting language to a large-scale web application and standalone application programming language. The steady fashion in which the sampled PHP) applications presented in this review have matured, through the use of third-party libraries, having dynamic features presented by Hills & Klint, are an indication PHP has the potential to become one of the biggest programming languages, aside it already dominating the web with over 80% of web applications being powered by PHP (Eshkevar et al, 2015).

Security being a very crucial part of many web applications, PHP was one of the most vulnerable to attacks such as SQL injection and Cross-site scripting. The adoption of OOP has helped in making PHP applications more secure and easier to maintain. This can be verified from the sampled large and widely used PHP applications in this review. However, it is important to also note that the area of security with regards to PHP application has had rapid improvement and patching as can be confirmed by (Walden et al, 2010), With that being a very good indicator, more research has to be done on more innovative security implementations. Furthermore, the area of PHP Application aging is one other area of research that can give even more information with regards to the evolution of PHP applications

CHAPTER THREE

SYSTEM ANALYSIS AND DESIGN

The Local Host Quiz developed in this work is based on the existing implementation infrastructures with an improvement in the systems adaptability to meet with the Nigerian structure of higher institutional examination systems. The Software Development Life Cycle (SDLC) for this system is the Waterfall Model. The Local Host Quiz design was presented using; Use case diagrams, Architectural diagram, Entity-relationship diagram and Data flow diagram. The design was based on the users and system requirements of the Local Host Quiz.

A data flow diagram (DFD) uses a very limited number of primitive symbols to represent the functions performed by a system and the data flow among the functions. Starting with a set of high-level functions that a system performs, a DFD model hierarchy represents various sub-functions. The data flow diagram depicted in Figure l shows the relationship among the entities in the Local Host Quiz system. The entity "STUDENT" can take examination after he or she gains access to the system. The entities "ADMINISTRATOR" can upload questions to be answered by student into the CBT database using any preferred question format set the examination instructions and configure the correct options or set of options for the questions. The entity "ADMINISTRATOR" is saddled with the responsibility of inserting students and setting the default password for the users of the system. The entity "DATABASE" is responsible for storing the user's information, the questions, the result of the student, and provides the question for the examination. The timing system logs off a student upon expiration of duration for the examination.

Local Host Quiz Development Life Cycle

The Waterfall model is a traditional SDLC introduced and popularized in the 1970s. The model has been reported to have achieved great success on many large projects of the past. This model was adopted for the development of the Local Host Quiz because it ensures a linear deployment of software where the requirements specification of the software is well understood.

The requirements of Local Host Quiz were well-defined and so could easily be monitored during development using the waterfall model. The model views the process of software development in five stages. The activities in one stage will be completed before moving to the other. Phases involved in the Waterfall Model are:

i. Requirement Analysis and Definition
ii. System and Software Design
iii. Implementation and testing
iv. Integration and System testing
v. Operation and Maintenance

Requirement Analysis and Definition

In this stage, the users (students and administrator) of the system were consulted in order to establish the goals, requirements, and services that the end-user requires and expects from the system. This involved proper definition of nature scope and peculiarity of problem. The problem on which this project is based is the design and implementation of a computer-based test system that does not suffer the setbacks of the existing manual method of writing examination.

System and software Design: The requirement specifications from the first phase were studied and a system design was prepared to help in specifying hardware and

software requirements and also help in defining the overall system architecture. This includes the use of Data flow diagrams, Activity Diagram and Use cases.

Implementation and Testing

This stage involved the actual development of the system by developing the graphical user interface, implementing the model using HTML, CSS and JavaScript and creating the system database using PHP MySQL.

Integration and System Testing

This is the stage after coding where every unit of the program was tested and integrated as a system in order to ensure the system works according to required specification

Operation and Maintenance This is the final stage of development in which all necessary maintenance activities were carried out in order to see that the software continues to work even when there is a new development in the future

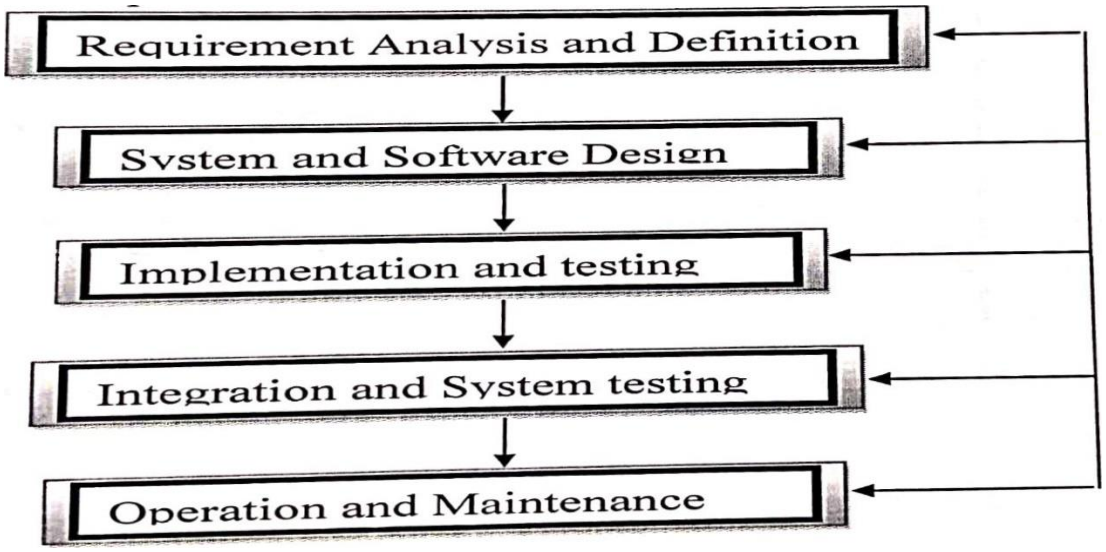
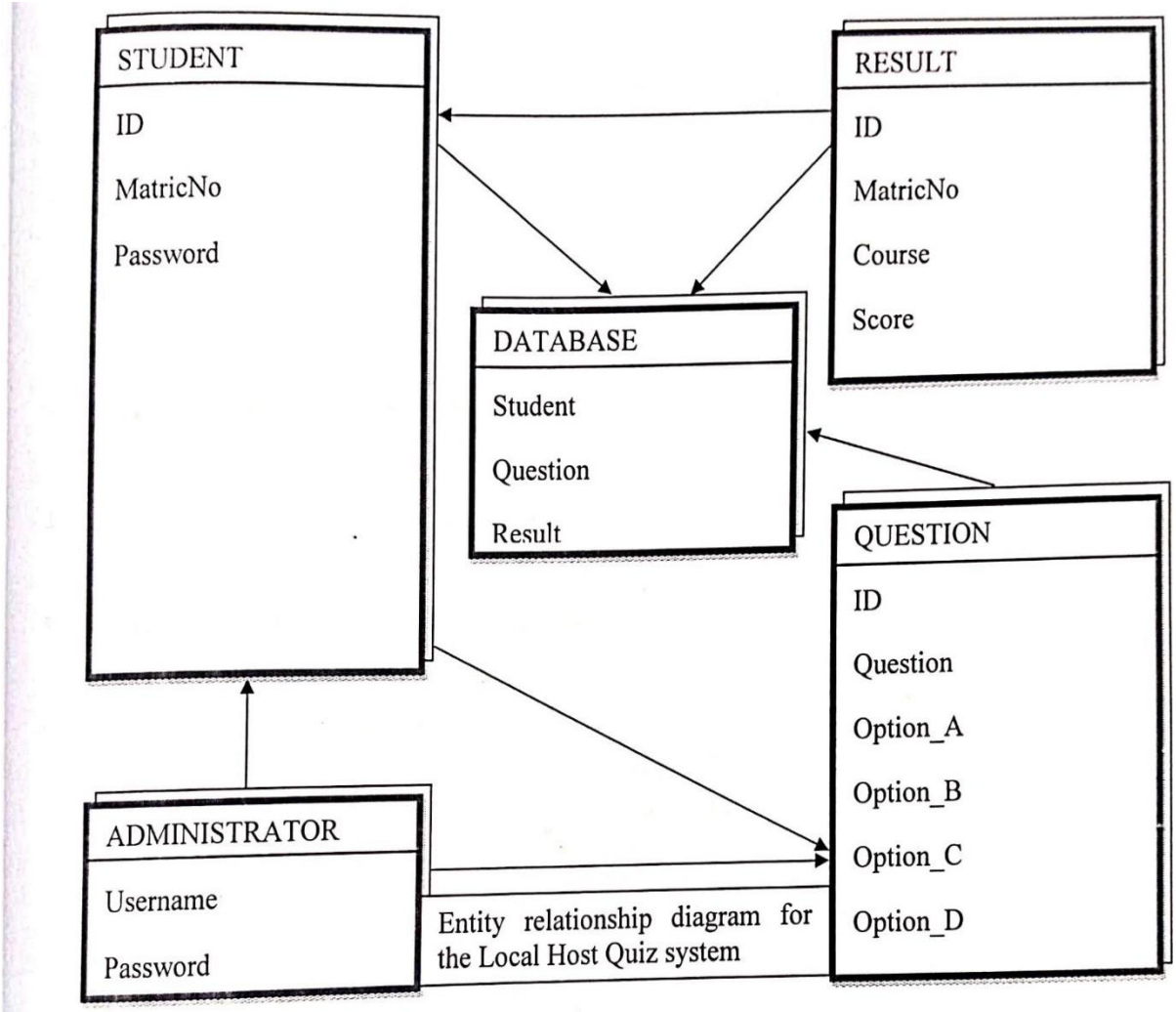
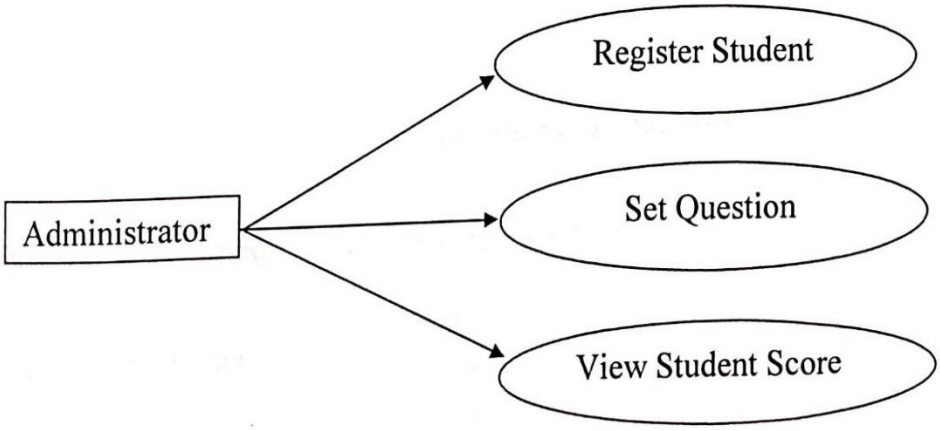


Fig.1 Waterfall Model for the Local Host Quiz Development Life cycle



Entity relationship diagram for the Local Host Quiz system



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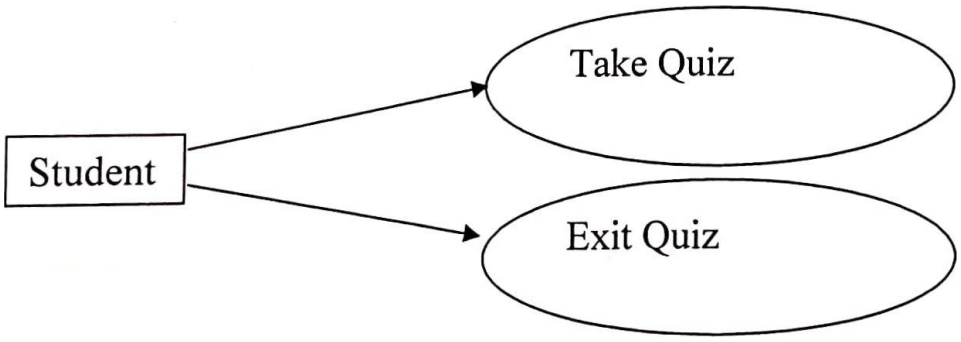
Use Case Diagram for the Administrator

Administrator's Use case diagram indicating that administrator shall be able to:

1. Log on to the system.
2. Register student in the system.
3. Create default password for the student.
4. Set examination questions and instructions.
5. Insert options to questions in the database.
6. View the score of the student



Use Case Diagram for the Student

Student's Use case diagram indication that student shall be able to:

1. Log in to the system
2. Take either quiz

3.1 PROBLEM AND SOLUTION

The manual system in the Auchi Polytechnic, Auchi has some limited functionalities in their current system based on the research carried out. In current system, there are only manual entries of keeping the details of the students as well as the examination. For instance, setting of examination questions paper by the lecturers is indeed very deteriorating and stressful. Due to the limited functionalities of the current system, most of the operations are still executed on paper which in return leads to data redundancy. Though the manual system is organized in a well-defined way, still the conveying of paper-based records of the students and examination is still very slow. The manual system for conducting examination in the college continues for weeks or months as well thereby causing both physical and mental strains to the examinees. Calculation of how many students registered, and verifying of details of these students in a mouth by hand is quite a difficult task for lecturers as well as to the staff. At time, the delay in declaration of result cause heavy losses to the students as generally they cannot be allowed to join further studies or appear in competitive exams because of the nonavailability of examination result in time. It is also very difficult for each student to come to the exam Centre to take their exam, and more difficult for students from very far distance to reach the exam Centre. The manual system is still not efficient in carrying out the whole process of conducting examination in the college. Another factor that takes into account in the manual system is there is always a possibility of errors. However, below are the most noticeable problems of the manual system that was analyzed.

i. There is no database to help store the examination records.
ii. The student registrations are always done on paper which leads at times to loss of data of the students
iii. A lot of time being consumed for creating the questions
iv. Student have to reach at the exam center to appear for the exam, and sometimes due to other problems may not reach by stipulated time.

Specifically, all the stated problems above will be dealt it with the help of the proposed system when it is finally implemented, as the Local Host Quiz systems are expected to be executed effectively and efficiently. The problems to be solved

by the proposed system includes: too much work overload, manual checking of wrong and right answers, declaration of results takes too long, remote candidates can't sit for exam, manual setting of question papers.

So, with the implementation of the online examination system, candidates from remote location will now be able to sit for exam from any location across the globe. With the proposed system in place, there will no longer be manual checking of wrong and right answers because every of the examination will now be automated to aid ease the too much work overload that the lecturers do experience. The proposed system will help solved the problem of delay in the declaration of examination results because with online examination system candidates will now be able to see their result immediately the exam gets over.

3.2 SYSTEM DEVELOPMENT METHODOLOGY JUSTIFICATION (PROTOTYPING)

The chosen methodology for the project is the prototyping. The prototyping methodology performs the analysis, design and implementation phases concurrently, and all three phases are performed repeatedly in a cycle until the said system is completed. In this type of methodology, basic of analysis and design are performed and work immediately begins in a system prototype with a quick and dirty program that provides a minimal number of features. This process continues in a proper cycle until the analyst, users and sponsor agree that the prototype provides adequate information to be installed and used in the institution, but after the prototype is installed, the refinement still takes place until it is accepted as the new system.

However, the first prototype is mainly the first part of the said system that is used, and it is then shown to the users and project sponsor, who thereafter provide comments. These comments are now used to reanalyzed, redesign and reimplement a second prototype which provides a few more features than the formal However, the author decides to use this methodology because a lot of application functionality can be implemented easily at a very low cost. The prototyping methodology is also used due to the fact that the proposed system desired needs is said to have a lot of interaction with the end users. It will help ensures that the end users constantly work with the system and provide feedback which can now be incorporated back in the prototype to result in a usable system. Users are extremely

capable of criticizing or anticipating their needs. This methodology is so ideal for designing good human computer interface system (For example the Local Host Quiz system). It provides a common life line and reference point for both to the users and designing in identifying potential problems and solution at the early stage of the development. So, at the end of prototyping processes, users usually get satisfied because they feel they have deep influence in the design process. Though there are some shortcomings attributed to this methodology but none of them seems troublesome enough to outweigh it potential advantages.

This methodology is ideal for this project because it will enable the developers to understand the user requirements at an early stage of the development. It will also help get valuable feedback from the user and helps system developers and designers understand about what exactly is expected from the product under development. In requirement engineering process, a prototype can assist with the elicitation and validation of system requirement compared to other models. In system design process, it can be used to run back-to-back test with the system that will be delivered. More also, rather than attempting to understand a system specification on paper, the user can interact with the prototype to better understand what and what I can do and it cannot do.

3.3 PROTOTYPING METHODOLOGY PHASE TO BE APPLIED TO THIS PROJECT

3.3.1 PLANNING PHASE

This phase is the fundamental process by which the author will use to understand why the information system needs to be built and determined how the project team will go about building it. So, in this phase, the author will conduct research thoroughly on the current system in order to know how it works, the limitations and area that needs to be improved and what is needed to be done to meet the requirements of the system. The author will be able to provide a system that saves the efforts and time of both the university and the students.

The questionnaire technique will be used in gathering the requirements and to understand more about the existing system through the examination board. After that, the tools as such as the Microsoft project will be used in creating the work

plan (Gantt Chart 2007) of the whole project based on the tasks that has to be done with specific time duration, staffing of the project will also be included in this work plan, and the necessary techniques that are to be put in place to help the project team control and direct the project throughout the entire SDLC will also be included in this work plan. At the end of this phase, we will ascertain ways to Convinced Auchi Polytechnic, Auchi stakeholders for the acceptance of the system request. However, below is the work plan for the proposed system that was design by the author using Microsoft project.

3.3.2 ANALYSIS PHASE

This is the second phase of the SDLC. So, during this phase, the author will analyze the current system "manual system", to find out what are the limitations of the existing system, and then identifies improvement opportunities that are to be made in the proposed system in order to make it a better one compared to the current system. However, to analyze the current system, the author will make use of the questionnaires fact-finding method to do that, and this will be achieve by distributing the questionnaire that was draft out by the author in chapter two of this project to the students as well as to the staff of the university. After this stage, the author will still make use of questionnaire method to find out what the users (students/staff) want the new system to do. So based on the information gathered, and the analysis that was carried out; now the functional and non-functional requirements of the proposed system will be analyzed by the author, and the hardware and software requirements needed for the proposed to be developed will now be made available. The modelling tools such as the Rationale Rose Edition for UML diagram are to be used in drawing the use case, sequence, and class diagrams, and then ERD diagram is to be used to have the exact vision of how the proposed system works, and how the actors will interact with the system functionalities and the activities to be performed while making use of the system.

3.3.3 DESIGN PHASE

This is next phase that will come after the analysis phase has been completed. So once the requirement information has been gathered, the author will now focus on

the high-level design, databases and the interfaces. In this phase, the system is designed to satisfy the requirements identified in the earlier phases. The requirements identified in the analysis phase are transformed into system design document that actually describes the design of the proposed system. Here also, the author will now use the information gathered earlier to create the system storyboards, and as well creates all the UML diagrams for the proposed system. Before drawing UML diagrams, the author will then identify who are the actors and what are the important use cases that are needed for the new system. After that, the author will now begin to draw the use case diagram. After the use case diagram has been drawn, the author will now draft out what are the important use cases needed for the system, and as well the use cases description which will help describe the flow of events for each use case. After that, the author will now use the information drafted out in the use cases description to draw the sequence diagram. Before the author starts to draw the sequence diagram, the entity, actor and controller of each use case will be identity. After the sequence diagram has been drawn completely, the author will now go ahead to identify what are the important classes needed for the proposed system and then use it to draw the class diagram as well as the relationships that exist between two class classes or more. After all the UML diagrams have been drawn, the author will then design the storyboard diagrams for the proposed system which will be apply during implementation phase. When designing the storyboard diagrams, the author will then be able to find out know what graphical user interface (GUI) is most ideal for the new system. However, the high-level design will then depict the structure of the data and algorithm required to implement the system, while the database design will give a clear description of the data schema required to support the high-level design. In this database design, the author will develop the physical and logical designs for the proposed system based on the ER diagram. However, the interface design will describe how the human computer interaction of the system will be, so that the existing system designs can be incorporated into the prototype. The author will use the Dreamweaver as tool to design the interface of the proposed system because it is so ideal in designing a good graphical user interface for any workable system. Finally, this phase will show the exact structure of how the proposed system should operate.

3.3.4 SYSTEM PROTOTYPE

After the design phase is completed, the information gathered then will be immediately incorporate into a prototype by the author. This may signify the modification or creation of system information, as well as inclusion of new codes and then modification of existing coding's to make it align with the proposed system coding's. After this, the prototype system will now be shown to users and the project sponsor for comment and review. These comments will now be used to redesign and re-implement a second prototype which then comes with a few more features.

3.3.5 IMPLEMENTATION PHASE

After the system prototype requirement is perfectly understood by the author, the system is now rewritten once more. So, to this, the author will transform the high-level design into codes and integrate the database into codes. This phase will actually include rewriting of the codes that will help to ensure that each and every function of the system performs and meet the needs of the users as well as to the project sponsor. In this stage, there will also be an integration of the entire system, to ensure that the system interfaces and coding are cooperating with each other to achieve maximum performance. At this phase, the author will then create the database tables for the proposed system with the help of MySQL server. At this phase also, the author will use some testing method such as black and white box testing to ensure that each and every function of the proposed system requirements as it is been required by Auchi Polytechnic, Auchi Examination board are duly met. After completion, the system will also be reviewed all over again to identify if there are any major or minor changes for the system that are needed. This phase will also include activities such as user training and system maintenance. The user training will need most in order to teach the students and staff of the university how to make best use of the new system.

3.3.6 SYSTEM

This is the last phase that will be carried within this chosen methodology. In this phase, final new system is now up and running, and ready to use and all functionalities are working with no noticeable error or changes. After this, the fully

developed online examination system will now be handed over to the management of the institution for use in conduct of any examinations in the college.

3.4 THE LOGIN PAGE

This is the first Page that appears when the Local Host Quiz is launched. It provides the user with two (2) textboxes needed for authentication of the user.

The Login Page includes the following items;

i. Textboxes for the input
ii. Link Label
iii. Button
iv. Menu Strip
v. Label

3.5 CHANGE USERNAME AND PASSWORD

This is part of the login page which was created for the admin in other to protect from security threat. This will allow the admin to Change his login information to any desired value in other to secure the database from unauthorized users and intruders.

3.6 ADMIN PAGE

ADMIN DATABASE ADMINISTRATION

This interface is used by the admin to manage the Database by carrying out several operations like registering of students, setting questions and viewing the result summary report.

This interface contains the following items;

i. Tab Control, sub-sectioned into Three (3) tabs:
1. Profile Database

2. Question Database
3. Score Database

ii. Buttons
iii. Labels

3.7 QUESTION DATABASE

The design of the Question database is sited in the second Tab Control for the Admin. This module provides a platform for the admin to input question into the database, while inputting the question into the database, the admin also has to specify the answer to the question in a textbox provided for the answer input.

This module contains the following items;

i. Data List View
ii. Group Boxes
iii. Labels
iv. Text Boxes
v. Buttons

3.8 SCORE / RESULT DATABASE

The design Of the Score / Result database is sited in the Admin Third Tab control. This module is used to display the result of all students who have taken the examination, using the system's designed examination platform. The result of the student is collected to this database immediately after the student finishes his or her exam before the result is displayed to the student. Similarly, if the student is unable to finish the examination before the time runs out, the program had been designed such that the student's result will still be stored on this database and displayed to the student, since some students are likely to fall within this category, that's why it is been taken into consideration.

3.9 EXAMINATION PAGE

This module is used to serve the questions of the examination to the student. The page upon load fetches questions from the database and serves it to the student who can answer the questions by checking the radio button which corresponds to the correct answer in the student's option. The page also initiates a count-down timer which is used to manage the duration of the examination. The student is logged out of the page when the time lapses and the result is being displayed. The page also makes provision for a calculating device which assists the user in simple addition, subtraction, multiplication, division, square and square root. This page is loaded with massive navigating buttons which allows the user to go to any also desired question at a time.

The following items are used in the designing of this page;

i. Button
ii. Label
iii. Linker Label
iv. Panel
v. Text Box
vi. Radio Button

CHAPTER FOUR

SYSTEM IMPLEMENTATION

4.1 INTRODUCTION

This particular chapter will mainly discuss the system implementation; this will be carried out with reference to what have been discussed in the analysis phase (chapter 3) before, the last system prototype accessed will be used in implementing the coding. However, system design is required to be implemented in order to turn it into an effective system. This makes it necessary that the coding of designs is turn into a computer language that can be understood, that is, programming language. More also, other crucial areas that will be discussed in this chapter are; the software and software development requirement tools and technologies, system implementation, implementation of GUI with the necessary codes, implementation of database as well as table structure.

4.2 DEVELOPMENT ENVIRONMENT

In some of the computer software and programs product development, the development environment is been referred to as the set of processes and programming tools used to create the program or software product. The term development may sometimes also imply the physical environment. Processes and tools are coordinated to provide developers an orderly interface to convenient view of the development process which is called an integrated development environment.

4.2.1 HARDWARE DEVELOPMENT ENVIRONMENT

Hardware development environment are the particular hardware a system needs for its development.

TABLE 2.

HARDWARE	REQUIREMENT
COMPUTER	LAPTOP OR DESKTOP

Processor	Ghz or higher
Hard disk	40GB or higher
System Type	64-bit Operating system or 32bit
Installed Memory (RAM)	2.00 GB (3.90 GB usable)
Monitor Screen Resolution	14’’/1367*768 (recommended) or higher

4.2.2 SOFTWARE DEVELOPMENT ENVIRONMENT

Software development environment are the specific software's a system needs for its development. The table below describes the software used in developing the newly proposed Auchi Polytechnic Quiz Application

Table 3.

Software	**Requirement**	**Descriptions**
Sublime Text	Version 4.0	It is used for designing the interface Which can as well be use as PHP Editor
IBM Rational Rose Enterprise Edition 2003	Version 7.0.0	Tool for UML modelling
Internet Web Browser (Google Chrome)	Version 10.0	To be use to run and preview the system
Antivirus Software (Avast)	2021	Application to be used to protect the System

Microsoft office 2019	Window 10 and above	Tool for creating Gantt chart
WampServer or Xampp Server	3.3.0	Tool for MySQL database. PHP.
PHP	8.1.5	For database development of the system

4.3 SYSTEM IMPLEMENTATION

System implementation can be seen as a process of defining, designing, testing and implementation of a new software application or program. This may involve the internal development of customized systems, creations of database systems, and the purchasing of third parties developed software's. In system implementation all written standards and procedures must guide all information systems processing functions.

4.3.1 THREE-TIER ARCHITECTURE

Three-tier architecture is a type of multi-tier computing architecture in which an entire application is distributed across three different computing tiers or layers. The first layer in the 3-tier architecture is the user layer which runs on the client's computer or pcs, the business logic and data processing layer which is the middle tier runs on the server which is called the application layer, a database management system (DBMS) which stores the data required by the middle tier, and this tier could also be run as a separate server called the database server.

The three-tier allows for one central server location for all the business logic and one central server location for all of the data leading to consistency, uniformity and reuse of applications in this environment. In three-tier architecture the more users access the system the more scalable the system will become unlike any other solutions because you can add as many middle tiers (running on each own server)

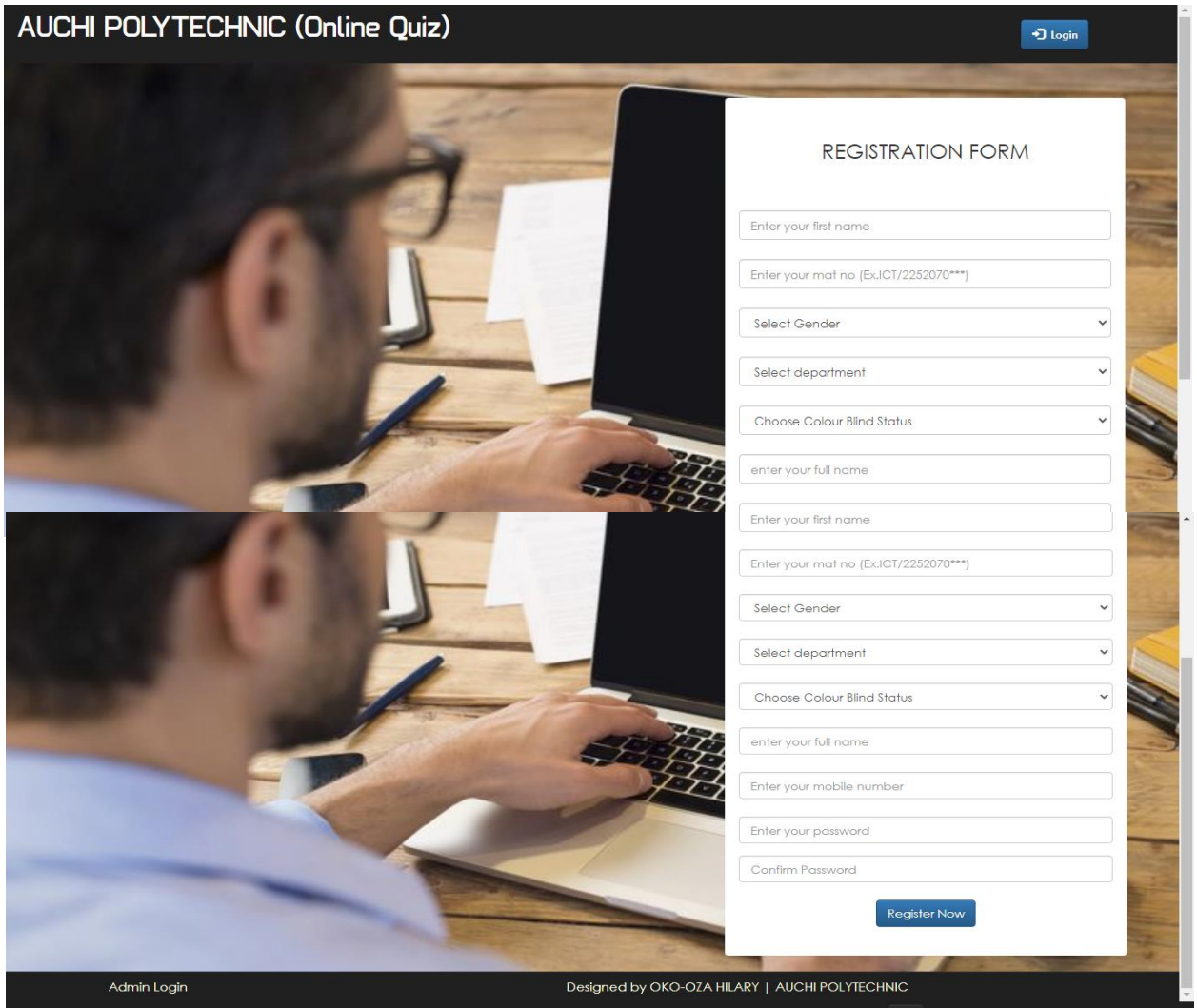
so as to ensure a good performance. Finally, the distribution of the entire application logic across three tiers helps optimize the overall application access and layer level development and management.

4.4 IMPLEMENTATION OF GRAPHICAL USER INTERFACE

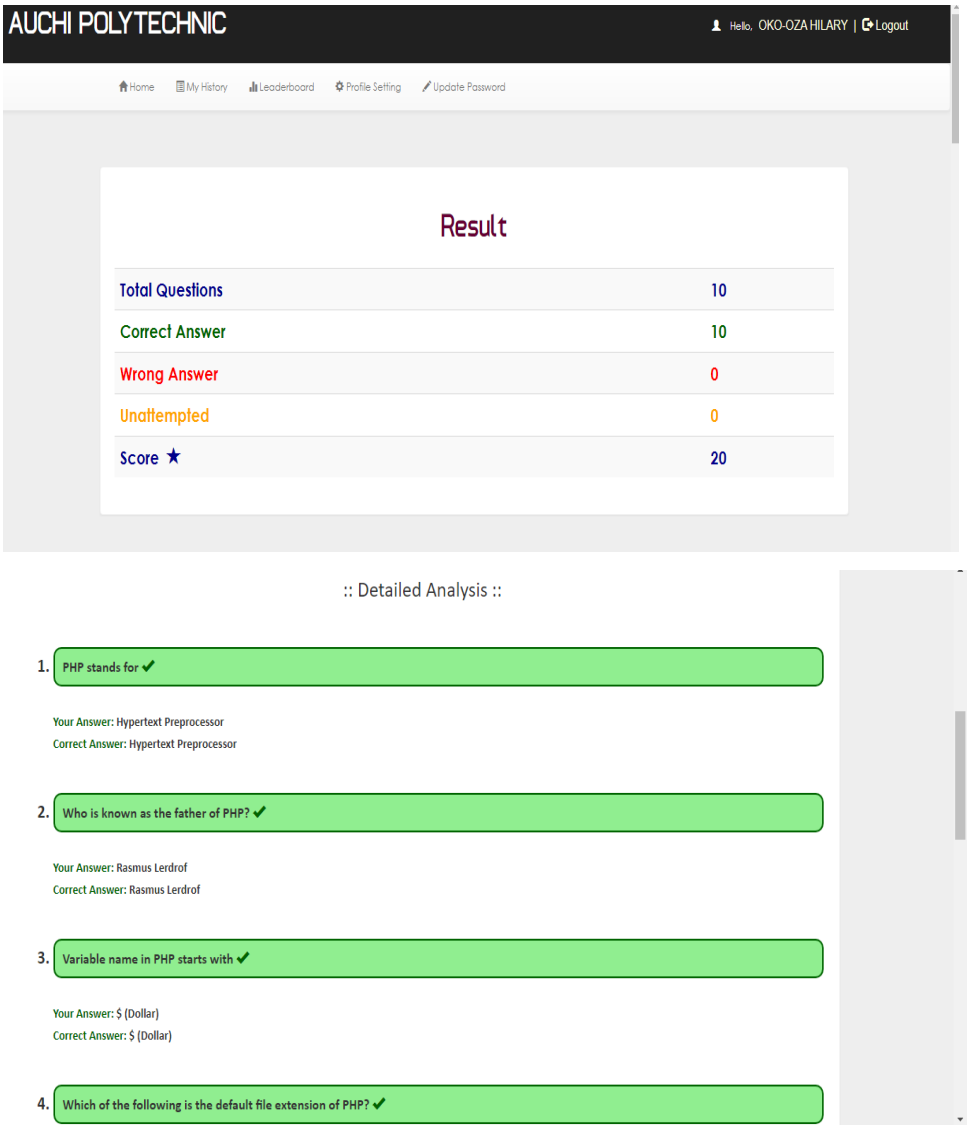
Graphical user interface

The implementation of graphical user interface (GUI) explains the system interface with design. The functions include Registration, Login, take quiz, check scores, Exit quiz etc.

4.4.1 LOGIN PAGE(GUI)

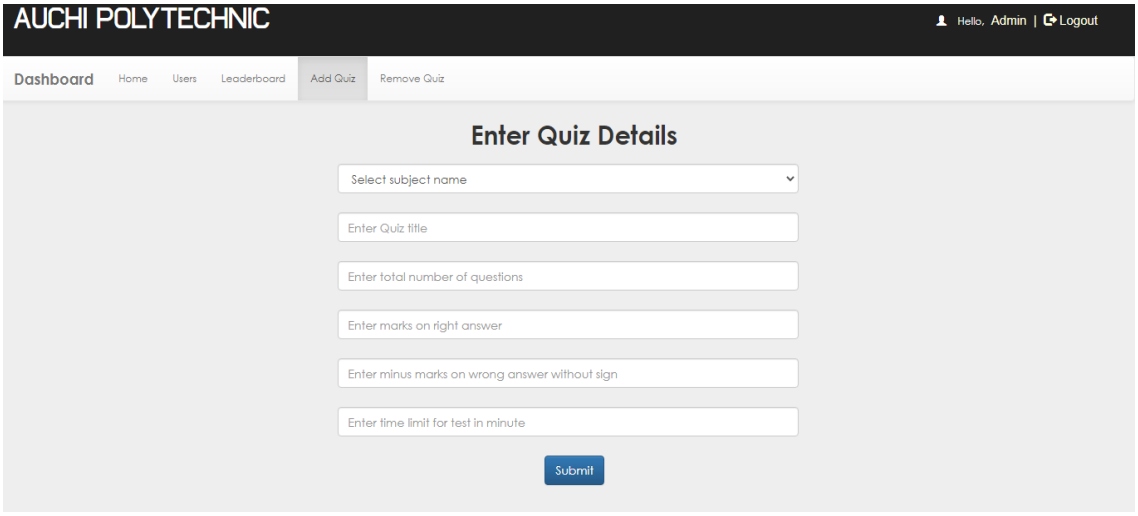


4.4.2 STUDENT RESULT PAGE(GUI)



The GUI above describes the Results of a student after he has completed taking the quiz

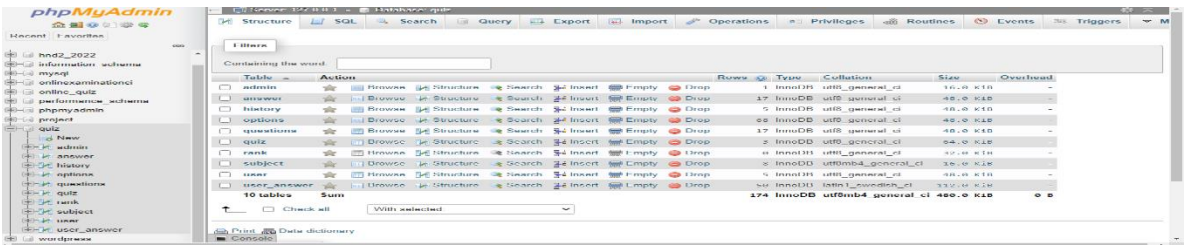
4.4.3 PREPARING QUESTION



The GUI above describes how the lecturer will prepare the questions for the student to take.

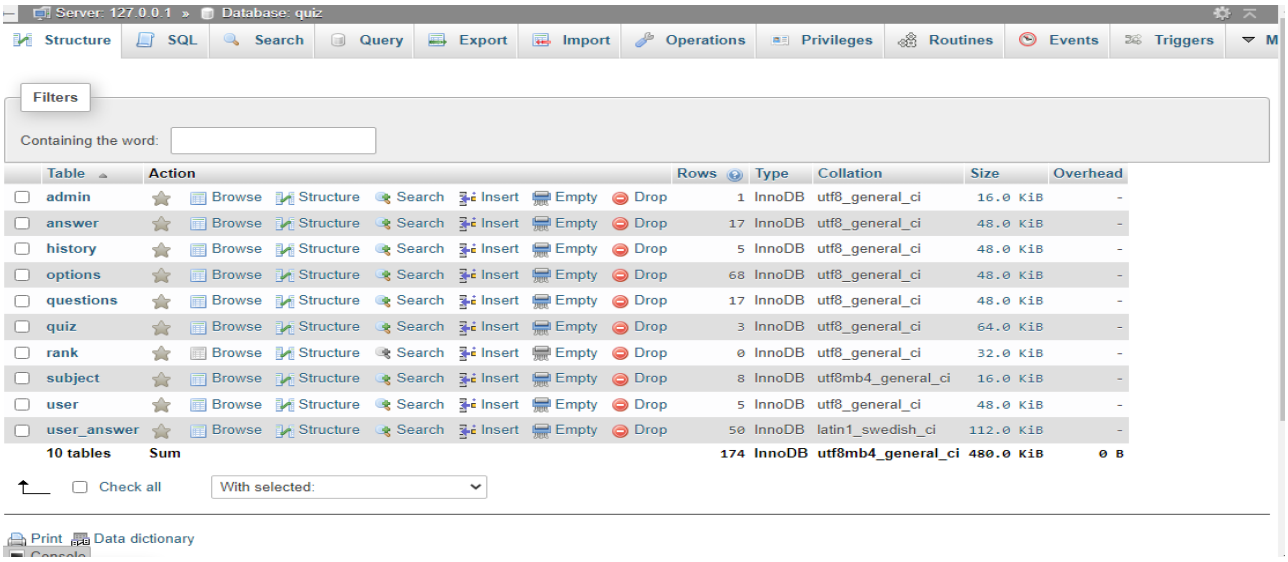
4.5 DATABASE IMPLEMENTATION

A database must be created in implementation of the proposed system in order to store all the necessary information. However, the first step taken was the development using MY SQL database, the interface was designed with PHP language support the SQL queries to be executed. The diagram below depicts how database stores all the information of the proposed system with the tables that were created, primary keys and foreign keys of each table so as to link one or more table together and respective tables and the coding used in the connection of database and the server.

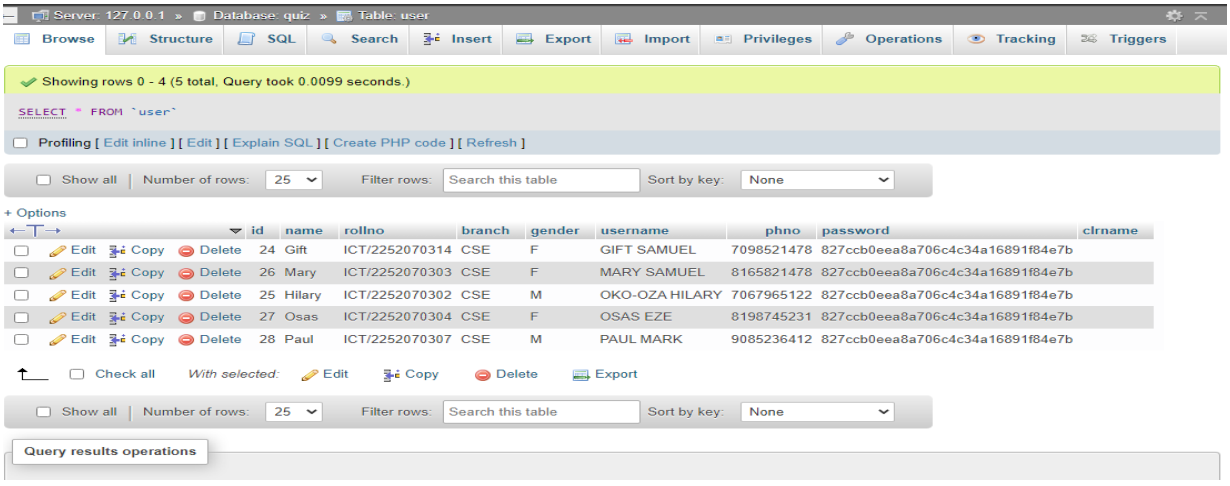


4.5.1 TABLE STRUCTURE

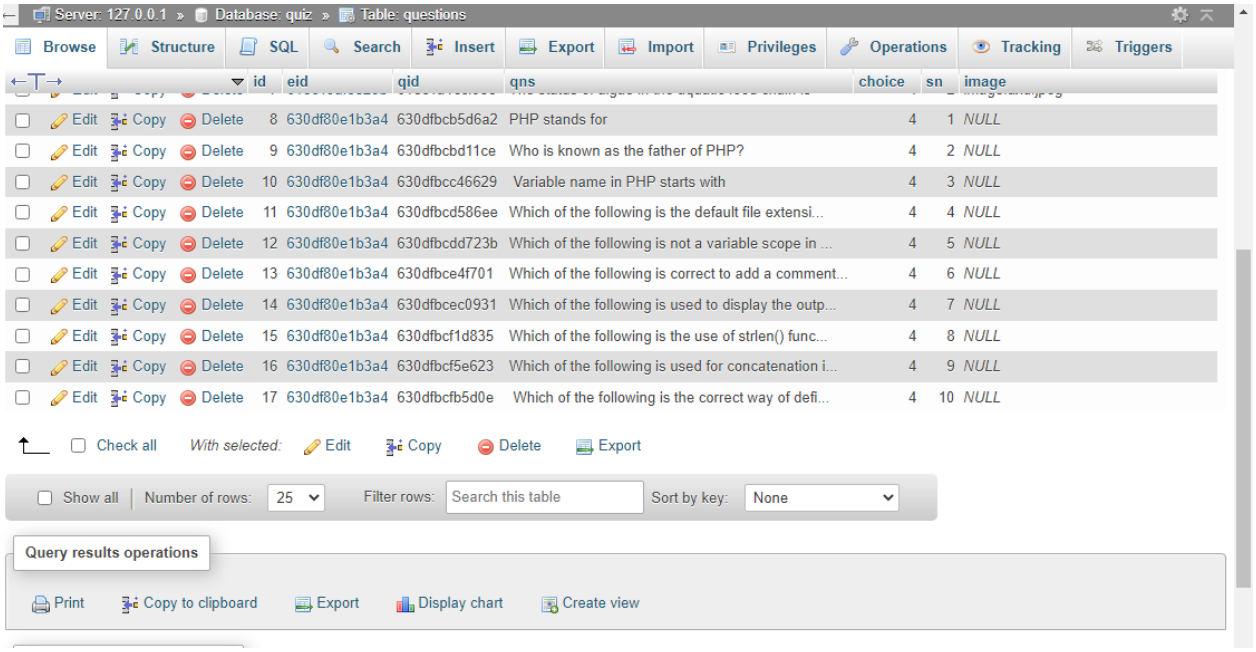
The illustration below highlights the table's structure of the database implementation.



4.5.2 STUDENT TABLE STRUCTURE



4.5.3 QUESTIONS TABLE STRUCTURE



4.6 CONCLUSION

In conclusion, this chapter has explained the necessary hardware and software development environment, a brief system implementation with the appropriate architecture for the proposed Auchi Polytechnic, Auchi Quiz Application, implementation of graphical user interface, database implementation and table structures of the database that was implemented

CHAPTER FIVE

SUMMARY CONCLUSION AND RECOMMENDATION

5.1 SUMMARY

Local host database quiz system is a way of improving educational activities fast and efficiently. Over period of years students have always had the cause to bother about the way and marking of their test / examination papers. In some case few of the students always have the thought of been mark down while some have the thought that they are being marked negatively by the lecturer. This software is very interactive and user friendly, it also has all the command controls that would allow students successfully take any test. All the students need to do is login with their name and mat number to be able to take any test.

5.2 CONCLUSION

This project is quite difficult and required a lot of research to achieve its sole aim. This chapter is the last chapter of this project report. The chapter will conclude all the chapters that has been earlier in this project development. So, it is crucial to compare the findings obtained with the main objectives of the project report so as to ascertain whether the research is successful or not. However, this local host quiz System was designed and implemented successfully based on the user requirement discussed in chapter 3 and 4 of this project. The new system was aimed to replace the current manual system of Auchi Polytechnic, Auchi in order to provide fast means of taking quiz and checking results by the admin or lecturer. This chapter will further summarize all the other chapters, finding and result, problem encounter, and finally future enhancements.

5.3 RECOMMENDATION

The following recommendations are made based on the findings:

i. We thereby recommend that academic institutions should explore the vast opportunities provided by ICT in the educational system especially as it concerns student assessment.

ii. IT professionals such as computer programmers, web designers and database administrators should be employed.

iii. Staffs / Lecturer's should be sent for advanced training to learn how to develop and maintain online / local host quiz system.

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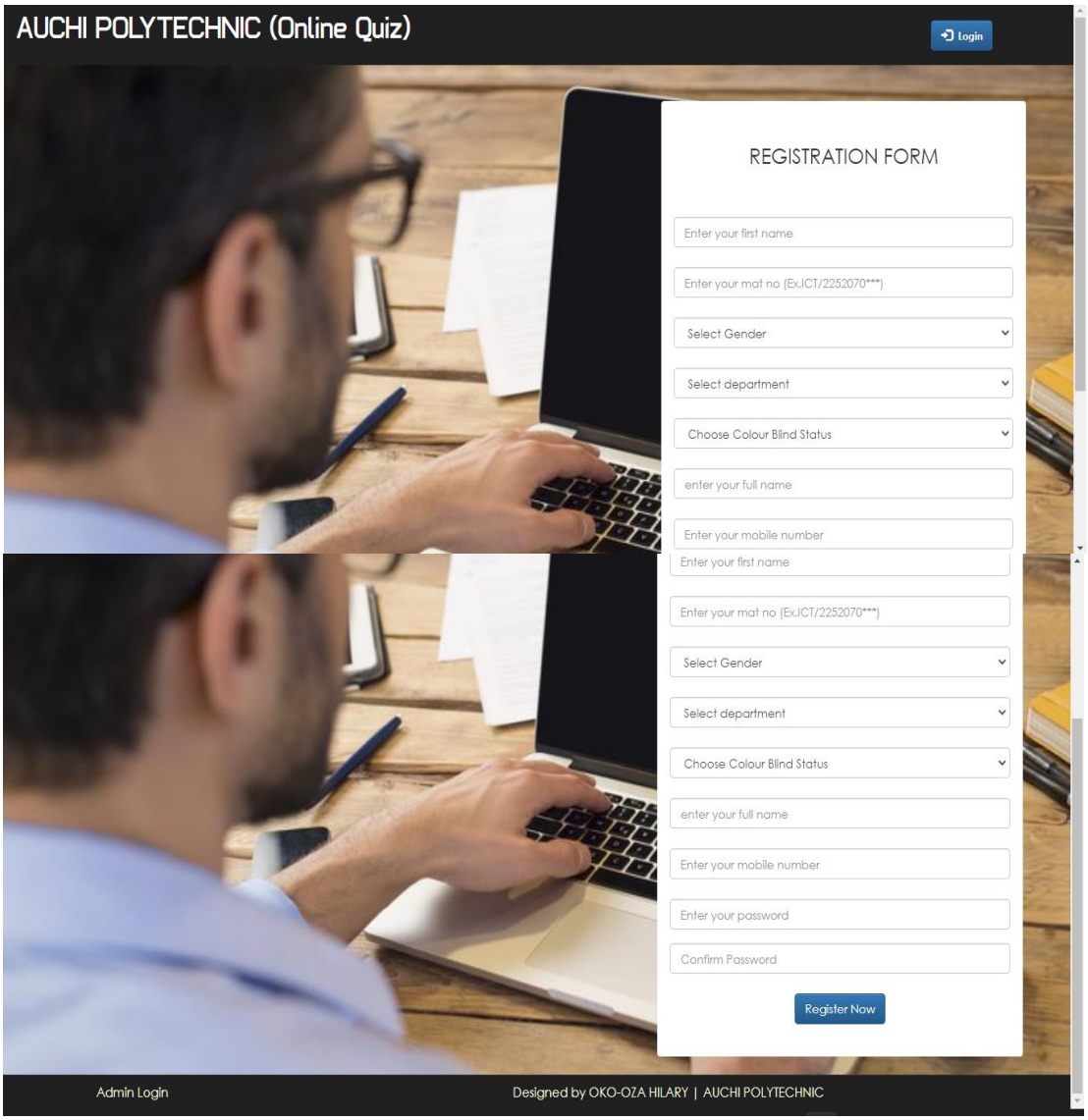
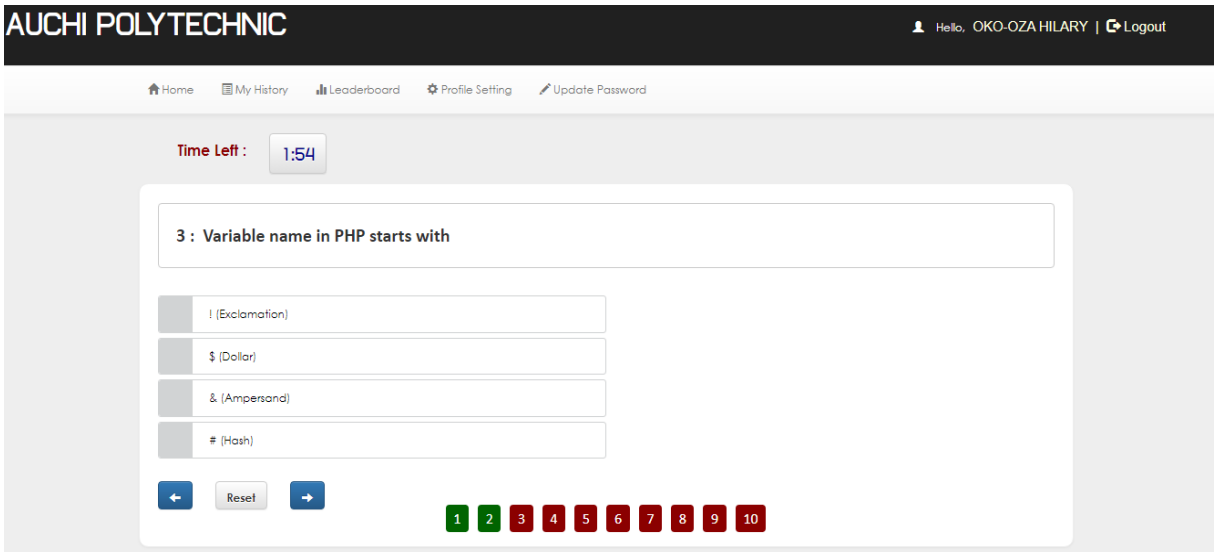
APPENDIX

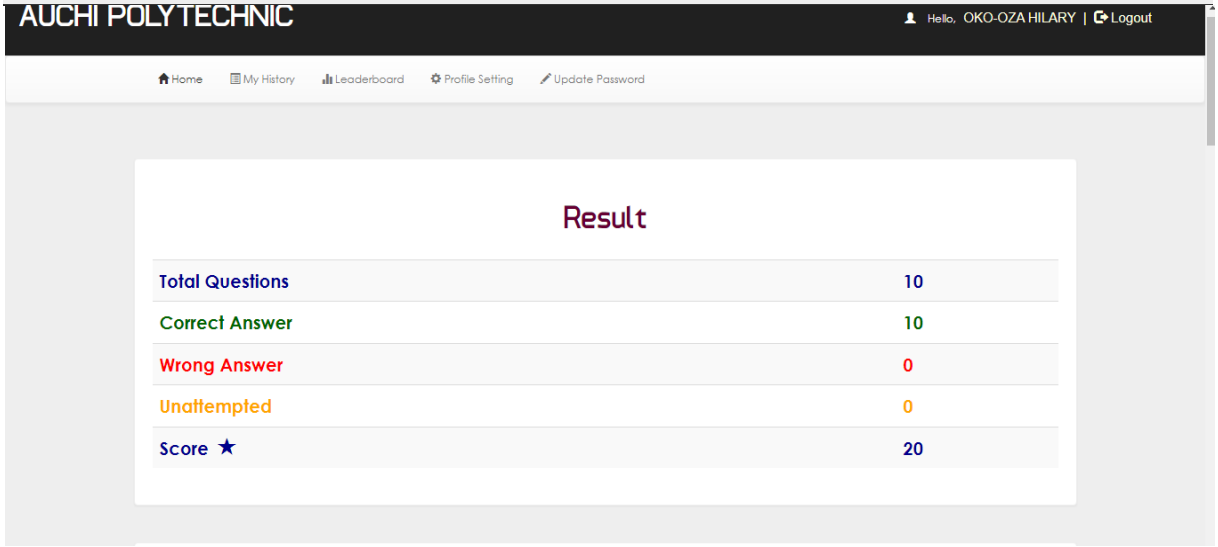
SOURCE OUTPUT

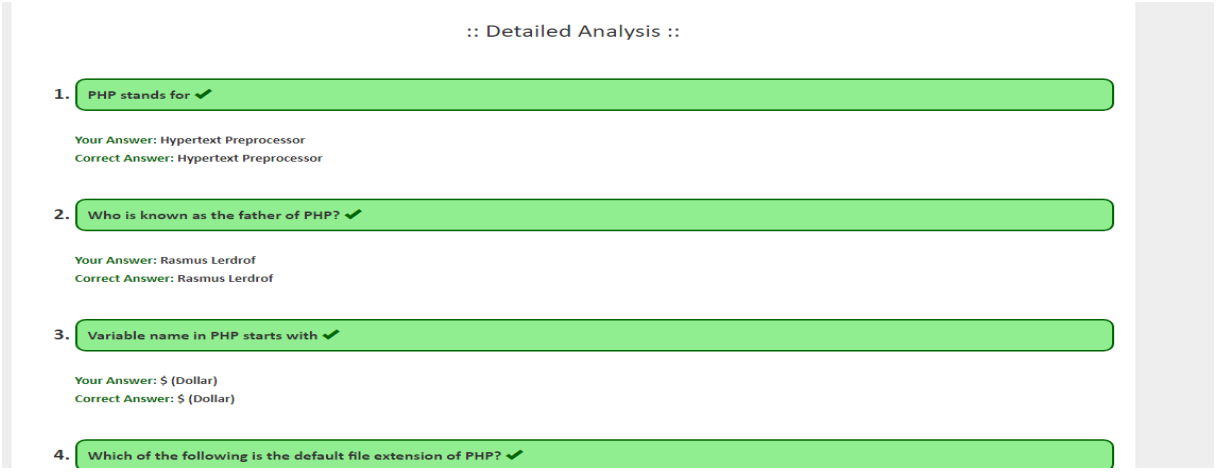
Home page



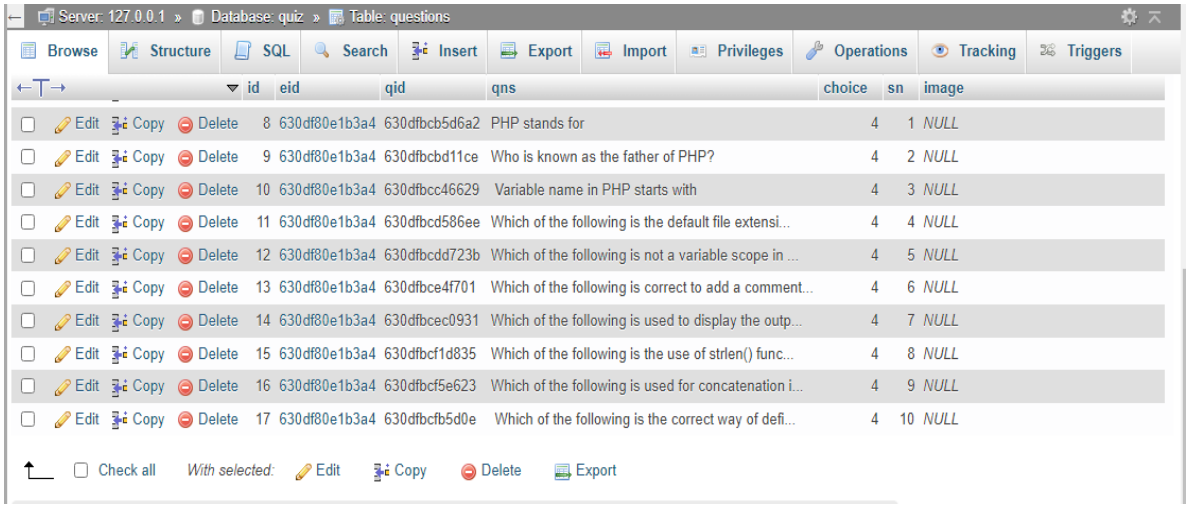
Quiz page


AUCHI POLYTECHNIC
Hello, OKO-OZA HILARY | Logout
Home
My History
Leaderboard
Profile Setting
Update Password
Time Left :
1:54
3 : Variable name in PHP starts with
! (Exclamation)
$ (Dollar)
& (Ampersand)
# (Hash)
Reset
1 2 3 4 5 6 7 8 9 10


AUCHI POLYTECHNIC
Hello, OKO-OZA HILARY | Logout
Home
My History
Leaderboard
Profile Setting
Update Password
Result
Total Questions 10
Correct Answer 10
Wrong Answer 0
Unattempted 0
Score ★ 20


:: Detailed Analysis ::
1. PHP stands for ✔
Your Answer: Hypertext Preprocessor
Correct Answer: Hypertext Preprocessor
2. Who is known as the father of PHP? ✔
Your Answer: Rasmus Lerdrof
Correct Answer: Rasmus Lerdrof
3. Variable name in PHP starts with ✔
Your Answer: $ (Dollar)
Correct Answer: $ (Dollar)
4. Which of the following is the default file extension of PHP? ✔

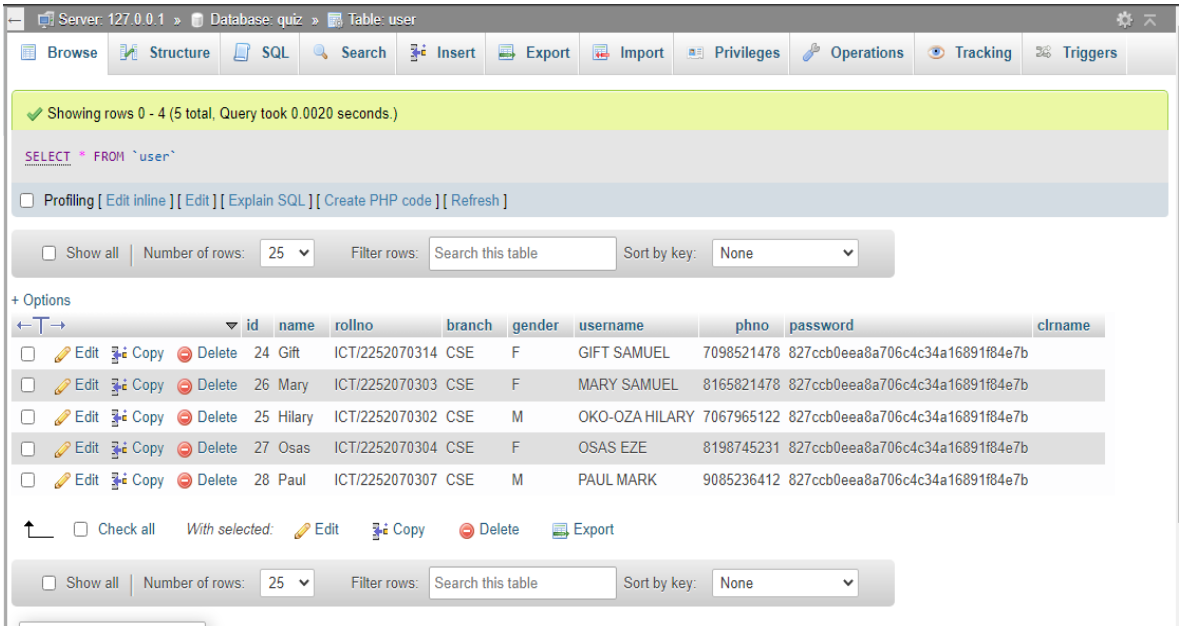
Question Database



	id	eid	qid	qns	choice	sn	image
Edit Copy Delete	8	630df80e1b3a4	630dfbcb5d6a2	PHP stands for	4	1	NULL
Edit Copy Delete	9	630df80e1b3a4	630dfbcbd11ce	Who is known as the father of PHP?	4	2	NULL
Edit Copy Delete	10	630df80e1b3a4	630dfbcc46629	Variable name in PHP starts with	4	3	NULL
Edit Copy Delete	11	630df80e1b3a4	630dfbcd586ee	Which of the following is the default file extensi...	4	4	NULL
Edit Copy Delete	12	630df80e1b3a4	630dfbcdd723b	Which of the following is not a variable scope in ...	4	5	NULL
Edit Copy Delete	13	630df80e1b3a4	630dfbce4f701	Which of the following is correct to add a comment...	4	6	NULL
Edit Copy Delete	14	630df80e1b3a4	630dfbcec0931	Which of the following is used to display the outp...	4	7	NULL
Edit Copy Delete	15	630df80e1b3a4	630dfbcf1d835	Which of the following is the use of strlen() func...	4	8	NULL
Edit Copy Delete	16	630df80e1b3a4	630dfbcf5e623	Which of the following is used for concatenation i...	4	9	NULL
Edit Copy Delete	17	630df80e1b3a4	630dfbcfb5d0e	Which of the following is the correct way of defi...	4	10	NULL

Check all With selected: Edit Copy Delete Export

Student Database

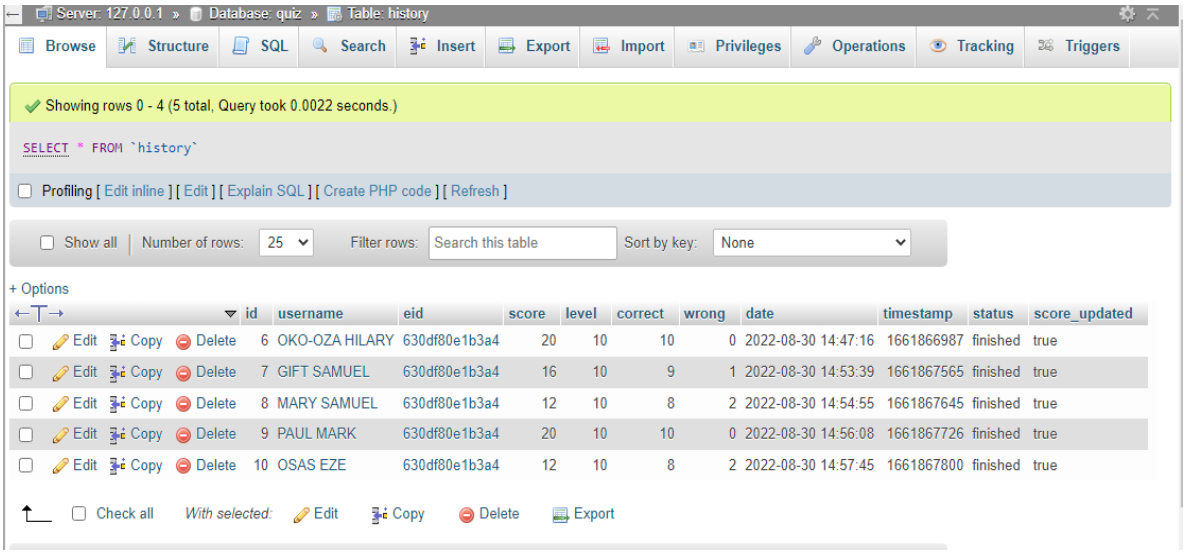


	id	name	rollno	branch	gender	username	phno	password	clrname
Edit Copy Delete	24	Gift	ICT/2252070314	CSE	F	GIFT SAMUEL	7098521478	827ccb0eea8a706c4c34a16891f84e7b	
Edit Copy Delete	26	Mary	ICT/2252070303	CSE	F	MARY SAMUEL	8165821478	827ccb0eea8a706c4c34a16891f84e7b	
Edit Copy Delete	25	Hilary	ICT/2252070302	CSE	M	OKO-OZA HILARY	7067965122	827ccb0eea8a706c4c34a16891f84e7b	
Edit Copy Delete	27	Osas	ICT/2252070304	CSE	F	OSAS EZE	8198745231	827ccb0eea8a706c4c34a16891f84e7b	
Edit Copy Delete	28	Paul	ICT/2252070307	CSE	M	PAUL MARK	9085236412	827ccb0eea8a706c4c34a16891f84e7b	

Check all With selected: Edit Copy Delete Export

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

Scores Database



SOURCE CODE

SERVER CONNECTION CODE

```
<?php
        $con= new mysqli('localhost','root','','quiz')or die("Could not connect to mysql".mysqli_error($con));
?>
```

LOGIN CODE

```
<?php
session_start();
```

```
if (isset($_SESSION["username"])) {
   session_destroy();
}
include_once 'dbConnection.php';
ob_start();
$ref      = @$_GET['q'];
$username = $_POST['username'];
$password = $_POST['password'];

$username = stripslashes($username);
$username = addslashes($username);
$password = stripslashes($password);
$password = addslashes($password);
$password = md5($password);
$result = mysqli_query($con, "SELECT name, id FROM user WHERE username
= '$username' and password = '$password'") or die('Error');
$count = mysqli_num_rows($result);
if ($count == 1) {
   while ($row = mysqli_fetch_array($result)) {
      $name = $row['name'];
                $iduser = $row['id'];
   }
   $_SESSION["name"]     = $name;
   $_SESSION["username"] = $username;
        $_SESSION["id"] = $iduser;
        ob_end_flush();
```

```
    header("location:account.php?q=1");
} else
        ob_end_flush();
    header("location:$ref?w=Wrong Username or Password");


?>
```

ADMIN PAGE CODE

```
<?php
include_once 'dbConnection.php';
$ref      = @$_GET['q'];
$username = $_POST['uname'];
$password = $_POST['password'];
$username = stripslashes($username);
$username = addslashes($username);
$password = stripslashes($password);
$password = addslashes($password);
$result = mysqli_query($con, "SELECT id, username FROM admin WHERE username =
'$username' and password = '$password'") or die('Error');
$count = mysqli_num_rows($result);
$row = mysqli_fetch_array($result);
if ($count == 1) {
    session_start();
    if (isset($_SESSION['username'])) {
        session_unset();
    }
```

```
   $_SESSION["name"]     = 'Admin';
   $_SESSION["key"]      =
'54585c506829293a2d4c3b68543b316e2e7a2d277858545a36362e5f39';
   $_SESSION["username"] = $username;
         $_SESSION["id"]                  = $row['id'];
   header("location:dash.php?q=0");
} else
   header("location:$ref?w=Warning : Access denied");
?>
```