DESIGN AND IMPLEMENTATION OF AN ONLINE JOURNAL MANAGEMENT SYSTEM (A CASE STUDY OF SOKOTO INTERNATIONAL JOURNAL OF COUNSELLING PSYCHOLOGY).

BY

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CERTIFICATION

This is to certify that, this project titled "Design and Implementation of an Online Journal Management System (A case study of Sokoto International Journal of Counselling Psychology) carried out by Maniru Malami Umar Tambuwal (Admission Number: 0911310036) of Computer Science Unit, Department of Mathematics is fully adequate in the scope and qualify for the award of Bachelor of Science Degree in Computer Science of Usmanu Danfodiyo University, Sokoto.

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DEDICATION

This research work is dedicated to Almighty Allah (S.W.T) and the entire family of Prof. Malami Umar Tambawal (Zarumman Tambuwal).

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ABSTRACT

This project research titled “Design and Implementation of an Online Journal Management System which is a case study of Sokoto International Journal of Counselling Psychology (SIJCP)” is a web-based system which is aimed at using the potent ability of the Computer System to solve many of the challenges faced by the current manual system of Journal and Publication processes. It provides numerous benefits which include: Automation of the Submission process, review process, payment process and publication process. Contributors from any part of the world can submit their articles for assessment and publication, also reviewers can be assigned articles to review online without sending the hard copy to them and after the review process they can upload the reviewed article and fill the assessment form online for the contributor to view and download for corrections. Online payment was also integrated in the system using Vogue Pay Processor. With this system, Researchers, students, contributors can access all the published articles from any location in the world since the system is a web-based system. Payment options on the system and online review process need to be improved as indicated by the result of the analysis obtained after administering the usability questionnaire to some users of the system.

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CHAPTER ONE: INTRODUCTION

1.1 BACKGROUND OF THE STUDY

As the need for online systems increases in our social, business and educational sector. There is also need for online systems in the Research and Publication area so as to make their activities easier and automated. Journals are mostly used by Researchers to publish their researches so that many people around the world can use the research for several purposes.

Online Journal Management systems are designed for the purpose of reducing stress made by the contributors, journal managers and other researchers by converting the manual processes to online processes. Records and details of all activities carried out on the system can be traced easily and effectively

This project research titled ***"Design and Implementation of an Online Journal System"*** will help in automating some of the activities that are involved in the process of Journal publications. These will include:

i. Article Submission will be automated so that contributors from any part of the world can submit the articles and will be received immediately on the system.
ii. Accessing of all submitted articles for publications by the Journal Manager.
iii. Published Journal articles can be accessed anywhere in the world by contributors and other researcher.

This system will be a web-based system designed for ***Sokoto International Journal of Counselling Psychology*** which is published by the Department of Educational Foundations, Usmanu Danfodiyo University Sokoto. The system will also provide twenty-four (24) hours a day, seven days a week service.

1.2 STATEMENT OF THE PROBLEM

Some of the problems identified with the current manual system of the Journal management are:

i. International or contributors that are not near Sokoto experience difficulties in submitting their articles for publications, they have to send it by courier.

ii. Lost of manuscripts before or after the assessment is also one of the major problems facing the current manual system.

iii. Other researcher who are not contributors have difficulties in using the journal because only contributors are given single copies of the journal after publication.

iv. Also many researchers may not even know when there is call for submission of articles for publication because the current manual system does so with fliers.

1.3. AIM AND OBJECTIVES

The aim of this project is to design an online journal management system that will replace the present manual system. The objectives of the study are as follows:

i. To design a system that will allow online submissions of articles for contributors and researchers instead of the manual system of submission.

ii. To allow contributors to track their submissions i.e. every contributor can view all his submissions.

iii. To enable the administrator to view and download all submissions made by contributors for the purpose of assessment before publication.

iv. To allow the administrator to upload all published papers online according to their volumes and issues.

v. To enable all contributors and researchers to view and download all published articles online.

vi. To provide a means of requesting for either a Hard copy of or an E-copy of a complete volume of the published Journal.

vii. To enable the editors/assessors fill an online assessment form which will be sent to the contributor notifying him on the result and status of his article.

viii. To evaluate the developed system.

1.4 MOTIVATION OF THE STUDY

Some of the problems that are faced by the present manual system such as lost or misplacement of manuscripts before or after assessment. Also the possibilities of other researchers from different locations to use the articles published in that journal is actually very low. These problems motivated me to develop a system that will solve the problems that are faced by the present manual system. This research will also enable me to apply my knowledge of web-programming, databases, software engineering and other areas in computing to solve the problem.

1.5 SCOPE OF THE STUDY

The scope of this project is to design a web-based (works on the web or internet) Journal management system that will enable researchers to know on the current news or events for the journal which include call for papers/articles, opening and closing date for submissions, submission guidelines, editorial board and other important information. It will also keep the information of all submissions and publications made for the journal. The Journal manager will be able to view and download all submissions made by contributors and will also be able to

notify them on the status of their articles i.e. if their articles are accepted for publication of rejected. Also published articles can be used by other researchers from anywhere in the world.

1.6 LIMITATIONS OF THE STUDY

The project research work is limited to The Sokoto International Journal of Counselling Psychology (SIJCP) which is an official publication of Department of Educational Foundations, Faculty of Education and Extension Services. Usmanu Danfodiyo University, Sokoto.

1.7 DEFINITION OF TERMS

1. **Internet:** Internet is a global system of interconnected computer networks that use the standard Internet protocol suite (TCP/IP) to serve billions of users worldwide. It is also known as the network of networks.
2. **Web-based:** A web-based application is an application that is made available via the World Wide Web.
3. **WWW (World Wide Web):** The World Wide Web is a system of interlinked hypertext documents accessed via the Internet
4. **Online System**: These are systems or application that can be accessed on the internet. It can be globally accessed by users.
5. **Journal:** A journal is an academic magazine published on a regular schedule. It contains articles written by experts in a particular field of study, based on research or analysis that the author, or authors, did.
6. **Management:** The process of dealing with or controlling things or people. Also it is the process of running and controlling something.

7. **Software:** These are set of instructions that are designed to solve a specific problem. Software is made up of data and instructions. There are two categories of software; System software and Application software.

CHAPTER TWO: LITERATURE REVIEW

2.1 INTRODUCTION TO JOURNAL

Thomas (2011) defined a journal is an academic magazine published on a regular schedule. It contains articles written by experts in a particular field of study, based on research or analysis that the author, or authors, did.

According to Oxford English Dictionary, a journal is defined as "a newspaper or magazine dealing with a particular subject".

Also Okon (2011) defines a Journal as a newspaper or magazine that deals with a particular subject or professional activity. He further defines a journal "As a magazine especially one that deals with specified subjects.

From the above definitions, we can say that a journal is made up of collection of articles contributed by different people (Authors or Contributors) of the same profession or different profession. All articles contributed are reviewed and assessed by experts of the same area with the author before publication. Some examples of Journals are:

1. Sokoto Educational Review; Published by Faculty of Education and Extension Services, Usmanu Danfodiyo University, Sokoto.
2. Nigerian Journal of Basic and Applied Sciences; Published by Faculty of Science, Usmanu Danfodiyo University, Sokoto etc.
3. Conference Proceedings for Nigeria Computer Society (NCS).
4. International Proceedings for Computer Science and Information Technology (IPCSIT).
5. The Counsellor: Published by Counselling Association of Nigeria (CASSON).

2.2. CLASSIFICATION OF JOURNALS

Thomas (2011) classified Journals into three (3) common classifications namely:

1. Scholarly & Research Journals
2. Professional, Trade & Industry Journals
3. Popular & News magazines

2.2.1 SCHOLARLY & RESEARCH JOURNALS: These are also known ***as peer-reviewed, academic or referred journals*** because the authors of the articles are usually researchers, academics and scholars. The purpose of these journals is to disseminate new findings and the results of studies, experiments, theories, etc. They may also review and critique these studies and findings.

These journals and the articles in them are usually written/edited by academics, researchers and scholar. Articles are submitted and go through a review and editing process which can often be quite lengthy (often a few months or more). The articles are reviewed by a panel of ***"experts***" usually known as Reviewers or Assessor. These are often other professors who are familiar with the subject being written about. Thus, they are sometimes called ***"peer reviewed".*** Examples are Journal of the American Medical Association, Journal of Abnormal Psychology, Anthropological Quarterly, and Nigerian Journal for Basic and Applied Science etc.

Some of the attributes of scholarly and Research journals according to Thomas (2011) are:

a. "Journal", "Proceedings", "Review" or "Quarterly" may appear in title of the journal. These titles often refer to an academic discipline or specialized field of study.

b. Format usually includes: brief abstract of 50-200 words describing the article, keywords which can be used as search terms, description of methodology used, results/observations, a conclusion or summary, and/or bibliography

c. Articles are usually lengthy, often five pages or more with sophisticated language and the jargon of a particular academic discipline.

d. Author affiliations with academic institutions or research centers are often listed at the beginning of the article.

e. Have in-text citations (example: Marks (2005). which use others work to support or refute a point or provide background research.

f. Indexed, abstracted and some full-text found in subject specific databases such as: *Academic Search Premier, Science Direct, JStor, Project Muse, SportsDiscus*, etc.

g. May have charts, graphs, tables and formulas.

h. Entire issue or volumes of the journal may be focused on a particular topic.

2.2.2 PROFESSIONAL, TRADE AND INDUSTRY JOURNALS: These are types of Journals that are aimed at a particular profession or industry, they are meant to inform people in that industry of current news and happenings. They are also concerned with the practical industry information. Articles are edited by experts in the field as authors, they also use peer-review process prior to publication.

Some of the attributes of Professional, Trade and Industry journals according to Thomas (2011) are:

a. Title usually has name of industry or profession in it.

b. Articles usually short to medium length of an informational nature having to do with up-to-date industry news, product announcements, opinions/editorial pieces, promotions, legislative or regulatory issues, etc.
c. Authors are usually specialists in the field, though some may be journalists who specialize in that particular industry.
d. Usually published monthly though some may be weekly. May use industry jargon though they are usually understood by most readers. Articles not as sophisticated as "scholarly journals".
e. Indexed, abstract and some full-text in such databases as: *Business Source Premier, Business & Company Resource Center, Lexis/Nexis, CINAHL, ABI/Inform.*
f. Illustrations and photos are included, also charts & graphs may be included

2.2.3 POPULAR & NEWS MAGAZINES

These types are basically concerned with the current events and news, hot topics, brief, factual information, short articles and interviews. Authors are usually journalist, staff writer and freelance writers. Also editors of articles are not academic experts in subject field of articles. No peer-review process, articles may be reviewed by an author or editorial board. Publishers are usually commercial/trade publishers and corporate publishers. Some of its attributes according to Thomas (2011) are:

a. Published at least monthly, though some may be weekly or even daily.
b. Articles are short to medium length in easy to understand language.
c. Lots of advertising of mostly consumer products. May account for more than half at the total pages. Publications are supported by advertising revenue.

d. Contains numerous illustrations and photos.

e. Authors usually are magazine staff members or free-lance writers.

f. No peer-reviewed process for articles.

g. Indexed, abstracted and often full-text content found in general purpose databases such as *General OneFile, Lexis/Nexis Academic, ProQuest Direct.*

This project research is based on *Scholarly & Research Journals.* The journal titled "*Sokoto International Journal of Counselling Psychology"* is an official publication of the Department of Educational Foundations, Faculty of Education & Extension Services, Usmanu Danfodiyo University, Sokoto State, Nigeria.

The major research areas for the journal are Guidance & Counselling and other areas in Guidance and Counselling such as Clinical Counselling, Sex and Marital Counselling, Career Counselling, etc. Articles submitted for publications are usually of the types; Research paper, position papers, Review of Literature and Policy Papers.

Akinade (2010) explains Research paper, Position paper, Review of Literature and Policy papers as:

i. **A Research paper** may refer to an academic paper (also called *scholarly paper*), which is published in academic journals and contains original research results or reviews existing results

ii. A **Position paper** is an essay that presents an opinion about an issue, typically that of the author or another specified entity; such as a political party. Position papers are published in academia, in politics, in law and other domains.

iii. **A literature review** is a text written by someone to consider the critical points of current knowledge including substantive findings, as well as theoretical and methodological contributions to a particular topic.

iv. **Policy Papers** are also known as **white paper** is an authoritative report or guide helping readers to understand an issue, solve a problem, or make a decision. White papers are used in two main spheres: government and business-to-business marketing. They may be considered as grey literature.

The Sokoto International Journal of Counselling Psychology uses peer-review process to edit and assess articles submitted by contributors for publication. The review process is done by experts in various areas of Education. Each paper is reviewed and assessed by an expert in the same area with the author (contributor)

2.3 ONLINE JOURNALS (ELETRONIC JOURNALS)

According to Scoles (2012), Electronic journals also known as *ejournals*, *e-journals*, and *electronic serials*, are scholarly journals, intellectual magazines or any type of journal that can be accessed via electronic transmission. In practice, this means that they are usually published on the Web. They are a specialized form of electronic document: they have the purpose of providing material for academic research and study, and they are formatted approximately like journal articles in traditional printed journals.

Some electronic journals are online-only journals; some are online versions of printed journals, and some consist of the online equivalent of a printed journal, but with additional online-only (sometimes video and interactive media) material.

Most commercial journals are subscription-based, or allow pay-per-view access. Many universities subscribe in bulk to packages of electronic journals, so as to provide access to them to their staff and even students. It is generally also possible for individuals to purchase an annual subscription to a journal, via the original publisher.

An increasing number of journals are now available as online open access journals, requiring no subscription and offering free full-text articles and reviews to all. Individual articles from electronic journals will also be found online for free in an ad-hoc manner: in working paper archives; on personal homepages; and in the collections held in institutional repositories and subject repositories. Some commercial journals do find ways to offer free materials. They may offer their initial issue or issues free, and then charge thereafter. Some give away their book reviews section for free. Others offer the first few pages of each article for free.

Most electronic journals are published in HTML and/or PDF formats, but some are available in only one of the two formats. A small minority publish in DOC, and a few are starting to add MP3 audio. Some early electronic journals were first published in ASCII text, and some informally published ones continue in that format.

2.3.1 FEATURES OF ONLINE JOURNALS

Some of the features of online journals according to Scoles (2012) are:

2.3.1.1 Web based Submission of manuscript: Authors are able to register and submit manuscript to the journal directly through the journal's web site. The Author is asked to upload the manuscript, accept copyright statement as well as to provide keywords and other basic information about the article.

2.3.1.2 Real time tracking of manuscript: The Author are able to track the submission through the editorial process (awaiting review, in-review, accepted as it is, not accepted, major revisions required etc.) as well as participate in the proofreading of submissions accepted for publication - by logging into their various accounts.

2.3.1.3 Online Peer Review System: Two models for managing the review process are commonly used:

1. **Standard Online review process:** The Standard Review Process is recommended because it steps reviewers through the process, ensures a complete online review process for each submission, and takes advantage of having all review process online and standard recommendations for submissions (Accepted as it is; Accepted with revisions; Submit elsewhere; Not Appropriate for publication).
2. **Email attachment review process:** Editors send Reviewers the request to review with the submission attached to the email. Reviewers email editors their assent (or regrets), as well as the review and recommendation. A number of review options are configurable: including how long reviewers have to complete their review, when to send reminders to reviewers, use a rating system for reviewers (visible only to the editors).

2.3.1.4 Online Editorial Work: The Editor oversees entire editorial and publishing process. The Editor, working with the Journal, typically establishes the policies and procedures for the journal management/publication.

Editors assign peer reviewers; monitor their progress rate the performance of the reviewers. The Editor can also play the role of Section Editor in the Editing process,

seeing accepted submissions through copyediting, layout, and proofreading. The Editor also schedules submissions for publication, arranges the Table of Contents and publishes the issue, as part of the Publishing Process.

2.3.1.5 Publishing of the e-Journal: This feature allows the journal managers to publish all accepted articles on the journal website in any format (preferably PDF format) according to their volumes and issues. This is among the most important feature of online journal systems.

2.3.1.6 Prepared Emails: E Journal system facilitates work flow communication through the use of fully customizable internal email messages. Customized emails will be used to communicate between authors, reviewers and administrator.

2.3.2 ADVANTAGES OF ONLINE JOURNALS

Some of the advantages of online journals according to Scoles (2012) are:

1. Some documents are more useful in electronic form due to enhanced search ability, e.g. in allowing statistical calculations to be affected
2. Electronic format is sometimes the only alternative so it represents a net increase in the information base
3. Economy of storage: the increase in cost for keeping printed material makes electronic forms more attractive from an economic viewpoint.
4. Availability for readers and researcher to access the journal anywhere in the world.

5. It also, offers speed of delivery, eliminates printing, and saves money in terms of postage costs.

2.3.3 DISADVANTAGES OF ONLINE JOURNALS

Some of the disadvantages of online journals Scoles (2012) are:

1. The lack of peer review of materials and slowness of the Internet and power outrages is one of the major disadvantages of online journals
2. Lack of accessibly to online journals for those who do not have access to the Internet or any other kind of electronic service

2.4. REVIEW OF SOME EXISTING ONLINE JOURNAL WEBSITES

Many online journal websites has been developed for the purpose of having electronic publications. This project research reviewed some of online journals which are:

2.4.1 International Proceedings of Computer Science and Information Technology (IPCSIT) ISSN: 2010-460X (www.ipcsit.com**)** started in April 2009 is a scholarly open access, peer-reviewed, interdisciplinary, monthly and fully refereed journal focusing on theories, methods and applications in Computer Science and Information Technology.

The journal aims to maintain a rapid editorial procedure and a rigorous peer-review system. All of the papers submitted by contributors are peer reviewed by leading expert researchers. The Journal is published by International Association of Computer Science and Information Technology (IACSIT) Press. The limitation of this online journal is that contributors cannot submit their articles using an online web based submission method

rather they submit their articles via an email address that is dedicated for the submission of articles for publication. Also it doesn't have an online review process. Contributors cannot track their submission i.e. they can't see the status of the papers they submitted unless they receive an email for the status of their papers from the editors.

2.4.2 International Journal of Applied Physics and Mathematics (IJAPM) ISSN: 2010-362X (www.ijapm.org) started in September 2010. International Journal of Applied Physics and Mathematics (IJAPM) is an international academic journal which gains a foothold in Singapore, Asia and opens to the world. It aims to promote the integration of applied physics and mathematics.

The focus is to publish papers on state-of-the-art applied physics and mathematics. Submitted papers are reviewed by technical committees of the Journal and Association. The audience includes researchers, managers and operators for applied physics and mathematics as well as designers and developers. The limitation of this online journal website is that contributors cannot submit their articles using an online web based submission method but they send their paper for publication through an email address, when the papers are reviewed, the papers are sent back to their email addresses and after they have made corrections, they send the papers again back to the email address. Also it doesn't have an online review process.

2.4.3 Online Journal of Social Sciences Research (www.onlineresearchjournals.org) (ISSN 2277-0844) is a monthly open access, peer reviewed international journal that provides a RAPID avenue to publish outstanding applied researches in all the fields of

Social Sciences that can result in the development of new procedures that can lead to improvement in these areas. The Online Journal of Social Sciences Research (OJSSR) is published by Online Research Journals. Article accepted for publication upon double blind peer review and the final evaluation of the revise (improve) version of the original submission are published as soon as possible. All materials published in the Online Journal of Social Sciences Research can be viewed and downloaded for free at the journal's website. The limitations for this journal is that it does not have an online submission, real time tracking and online review system. But after the review process, all articles accepted for publication are published online.

2.4.4 Nigerian Journal of Basic & Applied Science (http://njbas.udusok.edu.ng) is published by Faculty of science, Usmanu Danfodiyo University, Sokoto. Articles submitted to this journal for publications are articles from various fields or areas in Science such as; Computer Science, Chemistry, Physics, Biology, Zoology, Biochemistry, Microbiology etc. Articles are reviewed by experts in the same area with the contributors. Some of the features of online journal mentioned earlier are found on this journal website such as; online web based submission of manuscripts, tracking of submission, prepared emails etc. The limitation of this journal website is that a reviewers does not have online assessment form to fill after the assessment rather they just upload the reviewed paper online.

Online submission, online review process, online editorial work are the key problems that are facing most of the online journal website.

2.5 SOFTWARE TOOLS

The software tools reviewed in this research work are: HTML, PHP, JAVASCRIPT, MYSQL and WAMP SERVER.

2.5.1 HYPERTEXT MARKUP LANGUAGE

According to Brooks (2007), Hypertext Markup Language (HTML) is the basic language and foundation that makes the world wide web function accurately. It is the major language used in web designing and it is understood by most computers and the compliance for creating static web pages. He also agued that HTML is not only a programming language in the traditional sense, but rather a set of instructions about how to display a content and the application that translates the instructions is called the web browser. Some of the features of HTML include:

i. An HTML document provides an I/O interface, JavaScript and other scripting languages handles the calculations. An advantage of HTML is that it provides a wealth of interface that far surpass those of text-based language such as C
ii. HTML displays a running text on the web page, a feature called a marquee behavior.
iii. Using HTML, pages can linked together to form a continuous interactive session.

The benefits of HTML in this research work is that, it enables us to markup the structure of the interfaces for this project such as interface for online submission, and login form.

2.5.2 HYPERTEXT PREPROCESSOR (PHP)

PHP is a general-purpose server-side scripting language originally designed for Web development to produce dynamic Web pages. It is one of the first developed server-side scripting languages to be embedded into an HTML source document rather than calling an external file to

process data. The code is interpreted by a Web server with a PHP processor module which generates the resulting Web page. It also has evolved to include a command-line interface capability and can be used in standalone graphical applications. PHP can be deployed on most Web servers and also as a standalone shell on almost every operating system and platform free of charge. Some of the features of PHP are:

i. Supported by most web servers and operating systems
ii. Supports many standard network protocols libraries available for IMAP, NNTP, SMTP, POP3
iii. Supports many database management systems libraries available for UNIX DBM, MySQL, Oracle.
iv. Text processing features, from the POSIX Extended or Perl regular expressions to parsing XML documents
v. A fully featured programming language suitable for complex systems development.

PHP functions will be used in the research project to achieve some of the objectives of this research such as login process, submission process, review process, editorial work process etc.

2.5.3 JAVASCRIPT

JavaScript (**JS**) is an interpreted computer programming language. It was originally implemented as part of web browsers so that client-side scripts could interact with the user, control the browser, communicate asynchronously, and alter the document content that was displayed. More recently, however, it has become common in both game development and the creation of desktop applications.

JavaScript is a prototype-based scripting language that is dynamic, is weakly typed, and has first-class functions. Its syntax was influenced by the language C. JavaScript copies many

names and naming conventions from Java, but the two languages are otherwise unrelated and have very different semantics. The key design principles within JavaScript are taken from the Self and Scheme programming languages. It is a multi-paradigm language, supporting object-oriented, imperative, and functional programming styles.

JavaScript's use in applications outside of web pages—for example, in PDF documents, site-specific browsers, and desktop widgets—is also significant.

JavaScript will be used in this research project in user login authentication i.e. alerting if the username or password entered are wrong also it will be used in the process of deleting records i.e. it will enable an alert if you are sure you want to delete the record.

2.5.4 MySQL

The Database Management System (DBMS) is a collection of programs that enables users to create and maintain databases. The DBMS is hence a general purpose software that facilitates the purpose of defining, constructing and manipulating database for various applications. The DBMS used for handling the data in this research work is MySQL. MySQL is a fast easy-to-use DBMS used on many websites. The main focus of the developers was speed from the beginning. In the interest of the speed, they made the decision to offer fewer features than their major competitors such as Oracle and Sybase. However even though MySQL is less full-featured than its commercial competitors, it has all the features needed by majority database developers. Its easier to install and use than its commercial competitors, ad the difference in price is strongly in MySQL's favor.

Some of the benefits and Advantages of MYSQL are:

i. **Cost Effective:** MySQL database is an open source system and from everyone to anyone can use it as it is under General Public License. This gives developers the opportunity to create ***Free MySQL Database.*** At the same time, you can make changes to the code and customize the same as per your requirement and with the features that are available anyone would love to opt for MySQL database. However there are some limitations though for people planning to use MySQL database for commercial use as they might have to purchase standard edition of SQL server for a very nominal charge.

ii. **Cross Platform Operability:** One of the biggest factors which makes MySQL the most opted form of database is Cross Platform Operability. It has proved itself in getting installed in all the major platforms such as Linux, Windows, Solaris and so on and at the same time performance has not been affected. Apart from that, the presence of APIs makes its integration with C, C++, Perl, Java and Python etc pretty easy.

iii. **Security:** Databases setup on MySQL are very, very secure as all the passwords that are stored are in encrypted form, hence restricting unauthorized access to the database.

This project research is going to use MySQL Database as the back-end storage for all records. All data stored from the stage of account creation, submission of article, review process, payments, online publication and editorial work will be stored on the SQL Database.

2.5.5 WAMP SERVER

WAMP Server is a package of independently created programs installed on a computer that use Microsoft Windows Operating system. The Linux version of this is LAMP Server which runs on Linux Operating systems. The full meaning of WAMP is Windows, Apache, MySQL and PHP. Apache is a web server, MySQL is an open source database and PHP is a scripting

language that can manipulate information held in database and generate web pages dynamically each time content is requested by a browser. Other programs are also included in the package such as PhpMyAdmin which provides a graphical user interface of MySQL database manager or the alternative scripting languages Python and Perl.

WAMP Server will be used in this project to as a testing server i.e. after the source code has been created, we will use WAMP Server to test the output of the project.

CHAPTER THREE: SYSTEM ANALYSIS

3.1 INTRODUCTION

Systems are created to solve problems. One can think of the systems approach as an organized way of dealing with a problem. In this dynamic world, the subject System Analysis and Design (SAD), mainly deals with the software development activities.

According to Williams (2010), Systems analysis is a process of collecting factual data, understand the processes involved, identifying problems and recommending feasible suggestions for improving the system functioning. This involves studying the business processes, gathering operational data, understand the information flow, finding out bottlenecks and evolving solutions for overcoming the weaknesses of the system so as to achieve the organizational goals. System Analysis also includes subdividing of complex process involving the entire system, identification of data store and manual processes.

3.2 ANALYSIS OF THE CURRENT SYSTEM.

The analysis of the current system at the Department of Educational Foundations, Faculty of Education and Extension Services of Usmanu Danfodiyo University Sokoto was conducted by interviewing the users of the existing system (Editor-In-Chief, Secretary and some members of the Journal's Editorial Board) for clearer understanding of the current system. All the steps currently for calling of articles, assessing/reviewing articles and publishing articles in completely manual and offline.

The problems of the current system are: There is no efficient means of advertising or call for papers, some researchers that are not in Sokoto or nearby states and even outside Nigeria may

not even see the poster or flier hence they cannot contribute to the Journal. Also sending papers by post is another problem because the contributor may have wrong address or it can be delayed by the post officials. Another problem of the current manual system is that the published Journal cannot be used by some researchers within the country and even outside the country because copy of the Journal is only given to those who contribute to the Journal i.e. other researchers that doesn't have articles in the Journal cannot have access to the articles unless they get a copy from those that have it or they purchase a copy of the Journal which is also done manually therefore researchers outside the country would find it very difficult to purchase a copy of their own use.

3.2.1 ANALYSIS OF THE INPUT

The input requirements include information that must be presented to the system by the user to enable it performs its operations properly. The input requirements for the current system include:

i. Title of the Article.
ii. Name of the Author(s)/Contributor(s).
iii. Address or Affiliation of the Author(s).
iv. Email Address of the Author(s).
v. Phone Number of the Author(s).
vi. Reference Number (used to identify every article submitted).

3.2.2 ANALYSIS OF THE OUTPUT

Output is what the system gives back to you or the result of your process when the right inputs are in place. The output of the current system is through the published and printed

Volume(s) of the Journal where all articles that have been submitted, assessed/reviewed and accepted for publication are published. Other researchers that can have access to the printed copies of the Journals can use them for their own purpose.

3.2.3 ANALYSIS OF THE EXISTING SYSTEM PROCEDURE

Procedures are concerned with the processes or steps taken while working with the system to obtain maximum benefit. In the current system, all the processes of advertising, collecting, reviewing and publishing articles are done following the below procedures:

i. Call for article or papers which are done using posters and fliers.
ii. Receiving Hard copies of Articles from different authors or contributors via post.
iii. Sending Received articles to receivers of Review process via post.
iv. Sending of Reviewed papers to the Journal Management for Consideration via post
v. Sending of the Reviewed papers to the authors for corrections via post.
vi. Contributors send backs their corrected papers for publications and evidence of their publication payment via post.
vii. Corrected papers are then published in the corresponding Volume of the Journals.
viii. Copy of Journal published is sent to the contributors whose article appears in the Journal.

The above procedures are followed to ensure successful publication of articles in the corresponding volume(s) of the journal.

3.3 FILES MAINTAINED

The files maintained takes care of records that requires some information about the author/contributor which include title of the article, author’s name, address, email and phone

number etc. The essence of file maintenance is to enable easy retrieval of information when needed. In the current system, all articles submitted for review before publication are recorded and given a reference number for easy identification. Hard copies of the papers accepted for publication together with a CD are kept in a drawer or cabinet in the office of the Secretary of the Journal.

3.4 WEB-DESIGN METHODOLOGY

The new system to be developed for this research project is a web-based system. The methodology used in this research is Web-site Design Methodology (WSDM). Achebe (2002) stated that there are five phases in web-site design methodology which are:

1. Mission Statement
2. Audience Modeling
3. Conceptual Modeling
4. Implementation design
5. Actual Implementation

3.4.1 MISSION STATEMENT: The Mission statement also known as the "*Mission Statement specification*, is the first phase in web-based design methodology. It attempts to provide answer to the questions; what is the purpose of the web application, what is its subject and ho are the target audience? Once the above questions are answered, that means the mission statement phase is completed.

3.4.2 AUDIENCE MODELING: This phase comprises of two sub-phases which are audience classification and audience characterization; At Audience classification, Audience classes are

identified by considering only the activities of the organization related to the purpose of the project and identifying the people involved; these people can now be grouped into audience classes by looking at those information and functional requirements that are similar to them. Lastly, at the Audience characterization, the characteristics of the various audience classes are given.

3.4.3 CONCEPTUAL MODELING: This is also known as the conceptual design phase. It consist of three parts that can be performed simultaneously; Information modeling, functional modeling and navigational design. ***Information modeling*** is mainly intended for data intensive web sites; it deals with the "conceptual what" i.e. the type of information and how it is structured. ***Functional modeling*** consists of the interaction between the users and the system. For the purpose of the interaction, the functional requirements are listed according to the various audience classes based on how they are related to the system. Lastly, ***Navigational Design*** addresses how to navigate through the information. Each audience class is considered and the various information components external that are related to it are considered. The integration of Information, functional modeling and navigational model is known as ***Conceptual Modeling.***

3.4.4 IMPLEMENTATION DESIGN PHASE: The Implementation Design Phase is a three-phase model that comprises Page structure design, Presentation design and Logical Database design. ***Page structure design*** entails packaging information in form of chunks in the right proportions. ***Presentation Design*** deals with the *'look and feel'* of the web site. And may constitute a lot of literature. Lastly, ***Logical Database Design*** is the design of the underlying

database that may be used to maintain the data in case of data intensive web applications. The output of the implementation design is an implementation model.

3.4.5 IMPLEMENTATION PHASE: The implementation phase is concerned with realizing the web applications by using the design made in the previous phases.

This project research is going to use the above methodology for the design of the online system for Sokoto International Journal of Counselling Psychology (SIJCP). The diagram in figure 3.1 shows all the phases discussed in the methodology above.

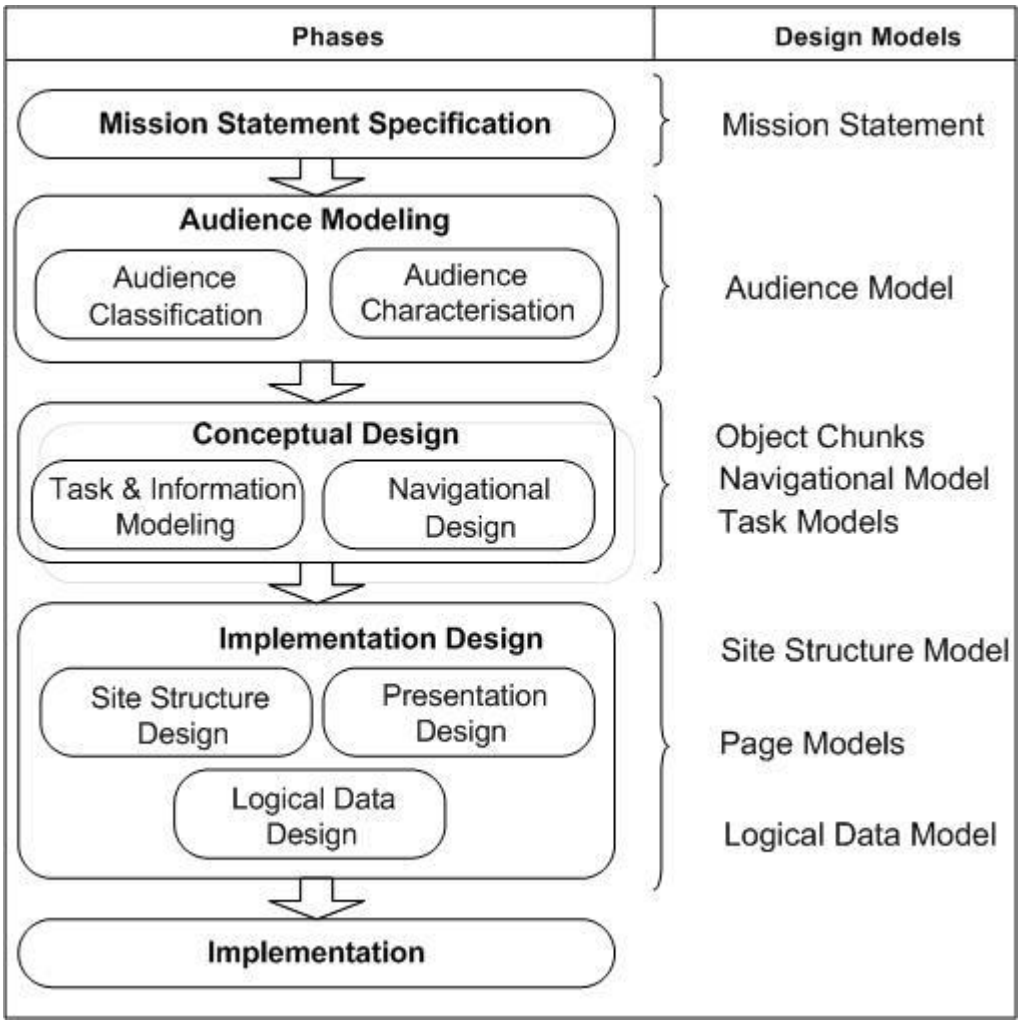

Figure 3.1: Web-based design method phases

3.5 EXPECTATIONS OF THE NEW SYSTEM

Retrieving Information electronically tend to overcome all these weakness present in the current manual system of Sokoto International journal of Counselling Psychology (SIJCP). This could be seen in terms of:

i. Speed

ii. Accuracy

iii. Provision of Information from databank.

Journal system using an automated system means that all submission, review and publication process will be done online which will make it faster instead of the current manual system.

Accuracy refers to the state of being exact. This is the ability to retrieve particular submission and publication information that is needed by either a reviewer or researcher without mistakes. For instance it is possible to search for publications of a specific author/contributor, but retrieving it manually will not give accurate result or will take too much time.

All information saved on an online system are stored in a database, therefore it will be stored there will be kept for as long as it is needed. Time sharing is also another advantage of an online system. In a network environment, more than one person could read the information about a particular publication at the same time but it varies in current manual system.

The aim of any information system is to improve the efficiency of already existing system irrespective of the system type i.e. manual or automated (Kautz, 2009). This efficiency can be achieved by proper planning. Online Journal Management systems may be complex to design and program because it is like training a computer to behave like human being, so the process of designing an Online Journal Management System is a complex task that requires its own expertise.

CHAPTER FOUR: SYSTEM DESIGN AND IMPLEMENTATION

4.1 INTRODUCTION

Based on the user requirement and the detailed analysis of the existing system, the new system must be designed. This is the phase of system designing. It is the most crucial phase in the developments of the system. The logical system arrived at a result of system analysis is converted into physical system design.

Williams (2010) stated that, normally design proceeds in two stages***: Preliminary or General Design and Structural or Detailed Design.***

4.1.1 Preliminary or General Design: In the preliminary or general design, the features of the new system are specified. The costs of implementing these features and benefits to be derived are estimated. If the project is still considered to be feasible, we move to the detailed designed stage.

4.1.2 Structured or Detailed Design: At this stage, the design of the system becomes more structured. Structure design is a blue of a computer system solution to given problem having the same components and inter-relationships among the same components as the original problem. Inputs, outputs, database, forms, codification schemes and processing specification are drawn up in detail.

This chapter explains the detailed design process of the new system putting into consideration the new requirements, new system procedure, new output requirement, data modeling, behavioural modeling, testing and finally implementation aspect of the new system.

4.2 NEW INPUT REQUIREMENT

Since attributes for article submission always require same details for each contributor, the new input requirements will still remain as the field possessed by each contributor. The fields are:

i. Author Name
ii. Author Affiliation
iii. Other Authors (if more than one author)
iv. Corresponding Author Name
v. Corresponding Author Affiliation
vi. Corresponding Author Email
vii. Corresponding Author GSM
viii. Title of the Paper/Article
ix. Abstract
x. Paper Type
xi. File (Copy of the paper to be attached)
xii. Mode of Payment (Bank Deposit or Bank Transfer)
xiii. Bank Deposit (Bank Name, Branch, Depositor Name, Teller Number, Branch, Amount, Date of Payment, Copy of the Teller to be attached)
xiv. Bank Transfer (Transfer Bank, Account Name, Account Number, Country)

4.3 NEW SYSTEM PROCEDURE

The new system procedure involves the following: Home Page, Editorial Board, Submission Instruction, Creating of Account, Login form, Submission of Paper/Article,

Assigning Review, Review Assessment form, Publication Payment, Submission of Corrected Paper/Article, Publishing Accepted Articles Online, Achieves Page and Order form.

i. **Home Page:** This is the first page that will appear or be displayed on the computer screen when the new system starts running. This page contains links of the most frequently accessed pages.

ii. **Editorial Board:** The Editorial Board page provide a list of all Editorial Board Members, their Affiliation and their rank in the Board.

iii. **Submission Instruction:** This page provides guidelines for the online article submission. It also involves guidelines on all processes that are related to the contributor.

iv. **Creating of Account:** On this page, a contributor that is willing to contribute or submit an article will be able to create his profile on the system. Some of the details required to create an account are: username, password to enable the contributor login to his/her account etc.

v. **Login Form:** Login form enables registered users to login to their various accounts by providing valid username and password.

vi. **Submission of Article:** This form enables only registered contributors to submit their articles online using the form. Details about the author, paper and payment details are required on the form.

vii. **Assigning Review:** This page is accessed by the Administrator, it is used to assigned papers that have been submitted for review to the reviewers. Only registered reviewers can be assigned to review an article

viii. **Review Assessment form:** The form enables the reviewer to assess the article/paper he/she has reviewed. The assessment form is sent to the contributor together with the

reviewed paper/article.

ix. **Reviewer's Upload Reviewed Paper:** This page enables the reviewer to upload the reviewed paper i.e. after the reviewer has downloaded the copy of the paper, assess the paper and has made correction/comments of the paper then he upload the copy of the paper which has the comments/corrections for the author/contributor to effect corrections.

x. **Publication Payment:** This is the section where the contributor whose paper/article has been accepted for publication makes the payment for the publication. The author generated invoice from his/her account for the payment. There are two payments option which are Bank deposit and online payment using ATM and Masters Cards.

xi. **Publication Payment Confirmation:** After the contributor has made his/her Publication payment at the bank (for bank deposit), the admin uses the page to confirm his/her payment, regardless of those that paid using online payment option, they don't need to be confirmed as the payment will be confirmed by the online payment server.

xii. **Submission of Corrected Articles/Papers:** This is the form which enables the contributor to submit his/her corrected paper for publication after paying his/her publication fees.

xiii. **Publishing Accepted Articles Online:** This is done by the Administrator. The Admin upload all corrected papers online according to Journal Volumes and issues for other researchers to view and download.

xiv. **Achieves Page:** The Achieves page displays all the published articles according to their Journal Volumes and Issues. Researchers can also search for an article that has been published on this Journal.

xv. **Order:** Order form allows researchers that are not contributors on this Journal to request

for a complete hard copy of an E-copy of any volume or issues of the Journal. The form provides a mean of an online payment to simplify the process.

4.4 NEW OUTPUT REQUIREMENT

The output is the end result of the processing stage, when the new inputs are entered and processed i.e. all processes that are required from the submission stage, review process, assessment, payment, submission of corrected papers and publishing corrected papers are done, then the final output will be displayed which is the published papers that are uploaded online for other researchers to use. For example once all the accepted papers/articles has been published online by the Journal Administrator, a researcher can search, view and download articles/papers that has been published on that journal according to their various volumes and issues of publication. Once the researcher search for a specific article, the title of the article, author(s) and a view/download link will be displayed for him either to view or to download the article. Also a researcher can request for a hard or e-copy of a complete volume/issue after seeing what is relevant for his/her research.

4.5 NEW FILES MAINTAINED

In the new system, all the information about an author, submitted article/paper and published papers/articles are recorded in the database of the system and can be assessed by the Administrator and other authorized personnel. Examples of the files maintained in the new system are:

i. Username and password of the contributor

ii. Full Name of the contributor

iii. Affiliation of the Contributor

iv. Payment records for Assessment, Publication and Purchase of Journal

v. Articles/Papers Submitted by every contributor

vi. Articles/Papers reviewed by a reviewer

vii. Articles/Papers assessed by a contributor

viii. Articles/Papers corrected and submitted by a contributor

ix. Articles/Papers published online

By maintaining all the above mentioned files, some if not all the difficulties in the previous system (manual system) such as misplacement of submitted papers/articles, not having proper records of payment etc. has been eliminated and also more security, reliability and efficiency has been provided to the Journal System.

4.6 NEW SYSTEM REQUIREMENTS

As known in every system, there has to be system requirements which are usually the minimum requirements for the system. In this section, we will see both the hardware and software requirements for the system.

4.6.1 HARDWARE REQUIREMENT

The following are the minimum hardware requirements for the system

i. Minimum of 128MB of RAM.

ii. Minimum of 5GB HARD DISK.

iii. V.G.A color screen monitor.

iv. A keyboard.

v. A mouse.

vi. P-III processor or equivalent.

4.6.2 SOFTWARE REQUIREMENT

The following are the minimum software requirement for the system to work:

i. Operating System: Microsoft Windows98/2000/XP/VISTA/SEVEN or EIGHT.

ii. Web browser: Internet Explorer, Opera, Google chrome, Mozilla, Firefox.

4.7 BEHAVIOURAL MODELING

Williams (2010) stated that: Behavioural modeling refers to the behaviour of the system, usually from the user point of view. The diagrams in behavioural modeling are used to specify the aspects of the proposed system. The diagram capture the essential aspects of the system and are able to communicate those aspects both to the developers and to the user to ensure that, the system is what he/she wants. In this section, we are going to use use-case modeling as our behavioural model.

4.7.1 USE CASE

According to Williams (2010): In a use-case diagram, we try to show the important users (actors) and the functionality of the system (use-case). Actors are represented by a stick figure and the functionalities are represented by an oval. Figure 4.1 shows the use case of the new system showing four actors which are Administrators, Contributor, Reviewer and the User with their functionalities.

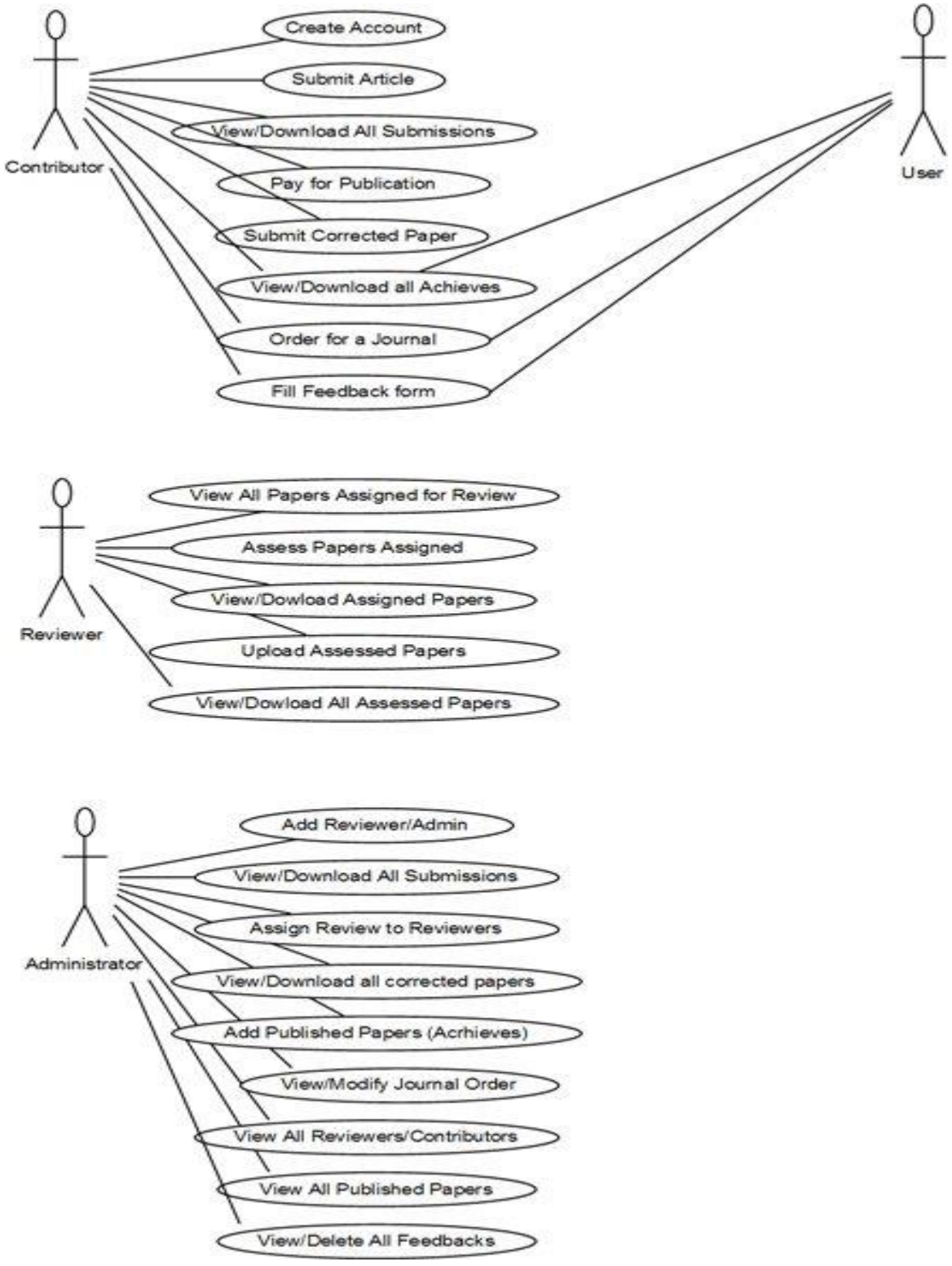

Figure 4.1: Use Case Diagrams

The above use case diagram (figure 4.1) is summarized in the below table:

Actor	Description
System Administrator	The system administrator has the highest priority control of the system. He performs the most crucial and secured actions on the system which include assigning review to reviewers, adding reviewers to the system, downloading all submissions, publishing accepted papers online etc.
Contributors	This are the researchers that submit articles/papers for review and publications. They can view all their submissions, status of their submission, make payments etc.
Reviewers	The reviewers on this system are those that have the privilege of reviewing the contributors papers for publication. They are assign review process by the admin.
Users	These can be other researchers that have interest in downloading the published articles, ordering for a complete volume or issue that is published.

Table 4.1: Use case summary

4.8 DATABASE DESIGN

This section shows the basic structure of all tables that are in the database of the system. Database modeling and description of all tables in the database of the system will be discussed in this section.

4.8.1 DATABASE MODELING

In this section, we see all the tables in the database and the relationship that exist between all the tables in the database. I use Modeling software known as MySQL Work-bench to model the database. The database model is shown below:

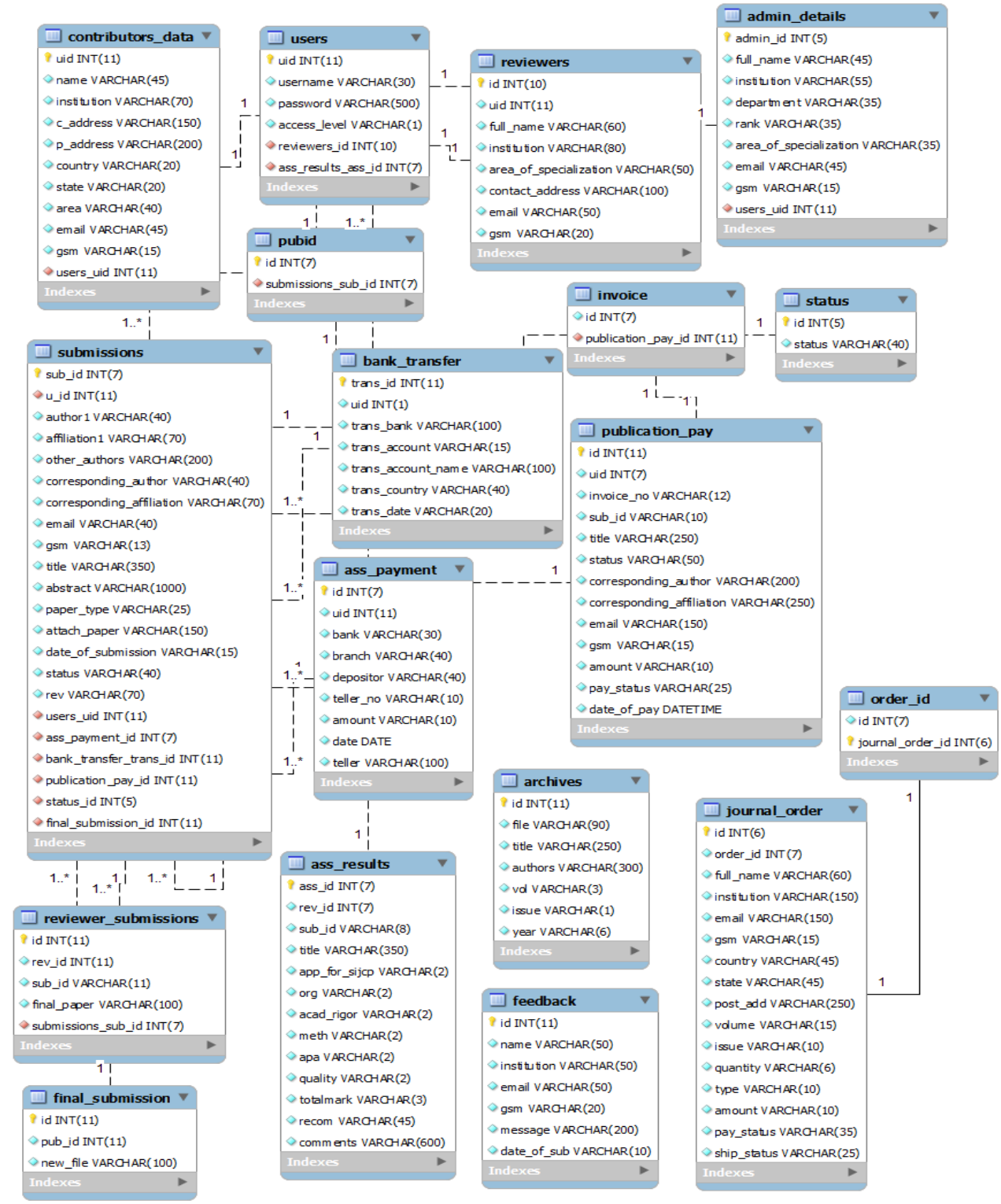

Figure 4.2: Database Model

4.8.2 DESCRIPTION OF ALL TABLES IN THE DATABASE

All the tables in the database of the system are described as shown below:

TABLE 4.8.2.1: ADMIN_DETAILS_TABLE

Field	Type	Status
Admin_id	Int(5)	Not Null
Full_name	Varchar(45)	Not Null
Institution	Varchar(55)	Not Null
Department	Varchar(35)	Not Null
Rank	Varchar(35)	Not Null
Area_of_specialization	Varchar(35)	Not Null
Email	Varchar(45)	Not Null
GSM	Varchar(15)	Not Null

TABLE 4.8.2.2: ACHIEVES_TABLE

Field	Type	Status
Id	Int(11)	Not Null
File	Varchar(90)	Not Null
Title	Varchar(250)	Not Null
Authors	Varchar(300)	Not Null
Vol	Varchar(5)	Not Null
Issue	Varchar(5)	Not Null
Year	Varchar(6)	Not Null

TABLE 4.8.2.3: ASS_PAYMENT_TABLE

Field	Type	Status
Id	Int(7)	Not Null
Uid	Int (11)	Not Null
Bank	Varchar(30)	Not Null
Branch	Varchar(40)	Not Null
Depositor	Varchar(40)	Not Null
Teller_no	Varchar(10)	Not Null
Amount	Varchar(10)	Not Null
Date	Date	Not Null
Teller	Varchar(25)	Not Null

TABLE 4.8.2.4: ASS_RESULT_TABLE

Field	Type	Status
ass_id	Int(7)	Not Null
rev_id	Int (7)	Not Null
sub_id	Int(10)	Not Null
Title	Varchar(350)	Not Null
app_for_sijcp	Varchar(2)	Not Null
Org	Varchar(2)	Not Null
Acad_rigor	Varchar(2)	Not Null
Meth	Varchar(2)	Not Null
Apa	Varchar(2)	Not Null
Quality	Varchar(2)	Not Null
Totalmark	Varchar(3)	Not Null
Recom	Varchar(45)	Not Null
Comments	Varchar(350)	Not Null

TABLE 4.8.2.5: BANK_TRANSFER_TABLE

Field	Type	Status
trans_id	Int(11)	Not Null
Uid	Int (7)	Not Null
Trans_bank	Int(100)	Not Null
Trans_account	Varchar(15)	Not Null
Trans_accoun_name	Varchar(100)	Not Null
Trans_country	Varchar(40)	Not Null
Trans_date	Varchar(20)	Not Null

TABLE 4.8.2.6: CONTRIBUTORS_DATA_TABLE

Field	Type	Status
u_id	Int(7)	Not Null
Name	Varchar(45)	Not Null
Institution	Varchar(70)	Not Null
C_address	Varchar(150)	Not Null
P_address	Varchar(200)	Not Null
Country	Varchar(20)	Not Null
State	Varchar(20)	Not Null
Area	Varchar(40)	Not Null
Email	Varchar(45)	Not Null
Gsm	Varchar(15)	Not Null

TABLE 4.8.2.7: FEEDBACK_TABLE

Field	Type	Status
Id	Int(7)	Not Null
Name	Varchar(50)	Not Null
Institution	Varchar(50)	Not Null
Email	Varchar(50)	Not Null
Gsm	Varchar(15)	Not Null
Message	Varchar(200)	Not Null
Date_of_sub	Varchar(10)	Not Null

TABLE 4.8.2.8: FINAL SUBMISSION_TABLE

Field	Type	Status
Id	Int(7)	Not Null
Pub_id	Int(11)	Not Null
New_file	Varchar(100)	Not Null

TABLE 4.8.2.9 INVOICE_NO_TABLE

Field	Type	Status
Id	Int(7)	Not Null

TABLE 4.8.2.10: JOURNAL_ORDER_TABLE

Field	Type	Status
Id	Int(7)	Not Null
Order_id	Int(7)	Not Null
Full_name	Varchar(60)	Not Null
Institution	Varchar(150)	Not Null
Email	Varchar(100)	Not Null
Gsm	Varchar(15)	Not Null
Country	Varchar(45)	Not Null
State	Varchar(45)	Not Null
Post_add	Varchar(25)	Not Null
Volume	Varchar(15)	Not Null
Issues	Varchar(10)	Not Null
Quantity	Varchar(6)	Not Null
Type	Varchar(10)	Not Null
Amount	Varchar(10)	Not Null
Pay_status	Varchar(35)	Not Null
Ship_status	Varchar(25)	Not Null

TABLE 4.8.2.11: ORDER_ID_TABLE

Field	Type	Status
Id	Int(7)	Not Null

TABLE 4.8.2.12: PUB_ID_TABLE

Field	Type	Status
Id	Int(7)	Not Null

TABLE 4.8.2.13: PUBLICATION_PAY_TABLE

Field	Type	Status
Id	Int(11)	Not Null
Uid	Int(7)	Not Null
Invoice_no	Varchar(12)	Not Null
Sub_id	Varchar(10)	Not Null
Title	Varchar(250)	Not Null
Status	Varchar(20)	Not Null
Corresponding_author	Varchar(100)	Not Null
Corresponding_affiliation	Varchar(250)	Not Null
Email	Varchar(150)	Not Null
Gsm	Varchar(15)	Not Null
Amount	Varchar(10)	Not Null
Pay_status	Varchar(10)	Not Null
Date_of_pay	date	Not Null

TABLE 4.8.2.14: REVIEWERS_TABLE

Field	Type	Status
Id	Int(10)	Not Null
Uid	Int(11)	Not Null
Full_name	Varchar(60)	Not Null
Institution	Varchar(80)	Not Null
Area_of_specialization	Varchar(50)	Not Null
Contact_address	Varchar(100)	Not Null
Email	Varchar(50)	Not Null
Gsm	Varchar(20)	Not Null

TABLE 4.8.2.15: REVIEWERS_SUMISSION_TABLE

Field	Type	Status
Id	Int(11)	Not Null
Rev_id	Int(11)	Not Null
Sub_id	Varchar(11)	Not Null
Final_paper	Varchar(100)	Not Null

TABLE 4.8.2.16: STATUS_TABLE

Field	Type	Status
Id	Int(5)	Not Null
Status	Varchar(40)	Not Null

TABLE 4.8.2.17: SUBMISSIONS_TABLE

Field	Type	Status
Sub_id	Int(7)	Not Null
U_id	Int(11)	Not Null
Author1	Varchar(40)	Not Null
Affiliation1	Varchar(70)	Not Null
Other_authors	Varchar(200)	Not Null
Corresponding_author	Varchar(40)	Not Null
Corresponding_affiliation	Varchar(70)	Not Null
Email	Varchar(60)	Not Null
Gsm	Varchar(15)	Not Null
Title	Varchar(350)	Not Null
Abstract	Varchar(700)	Not Null
Paper_type	Varchar(25)	Not Null
Attach_paper	Varchar(150)	Not Null
Date_of_submission	Varchar(15)	Not Null
Status	Varchar(40)	Not Null
Rev	Varchar(10)	Not Null

TABLE 4.8.2.18: USERS_TABLE

Field	Type	Status
Uid	Int(11)	Not Null
Username	Varchar(30)	Not Null
Password	Varchar(100)	Not Null
Access_level	Varchar(1)	Not Null

4.9 SYSTEM IMPLEMENTATION

According to Williams (2010): System implementation refers to the point in software design where the analysis and modeling that are done regarding the system is realized through

programming and deployment of the new system i.e. software. We are going to see some of the interfaces in the system which may include home page, account creation page, achieves pages, login page, article submission page etc.

4.9.1 USER INTERFACE IMPLEMENTATION

The user interface was implemented using software tools such as HTML, PHP and JavaScript's. These are the languages that were used to implement the user interface. Some of the pages for the system are shown below:

4.9.2 HOME PAGE

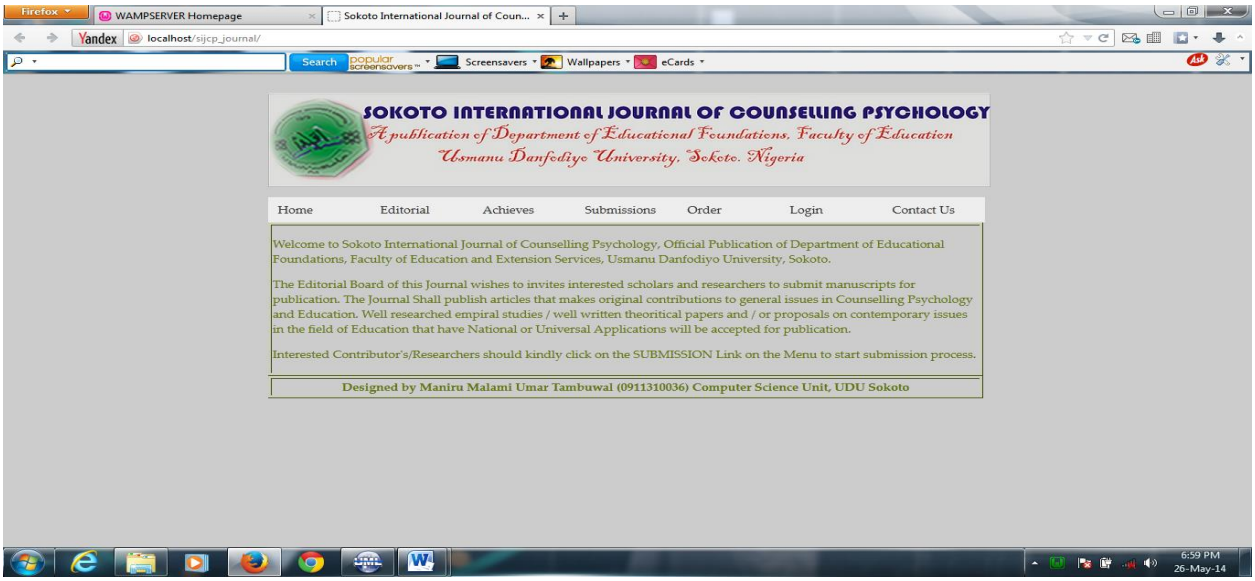

Figure 4.2: Home Page

The home page is the initial page that will be displayed to the user upon his/her visit to the system.

4.9.2 NEW ACCOUNT PAGE

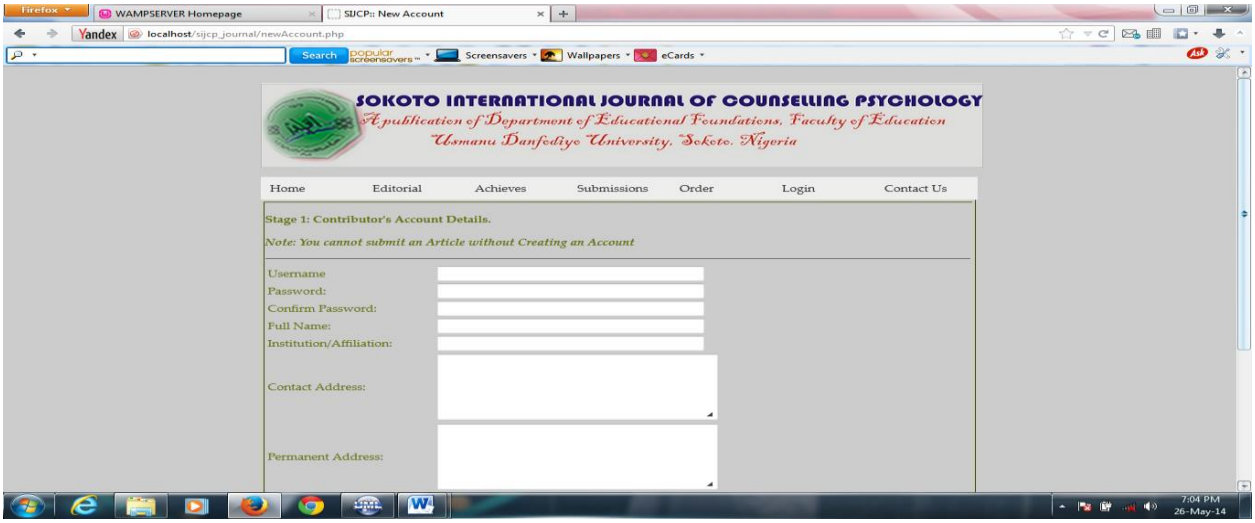

Figure 4.3: New Account Page

This page enables interested contributors to create account for them to have access for the submission of articles to the Journal.

4.9.3 LOGIN PAGE

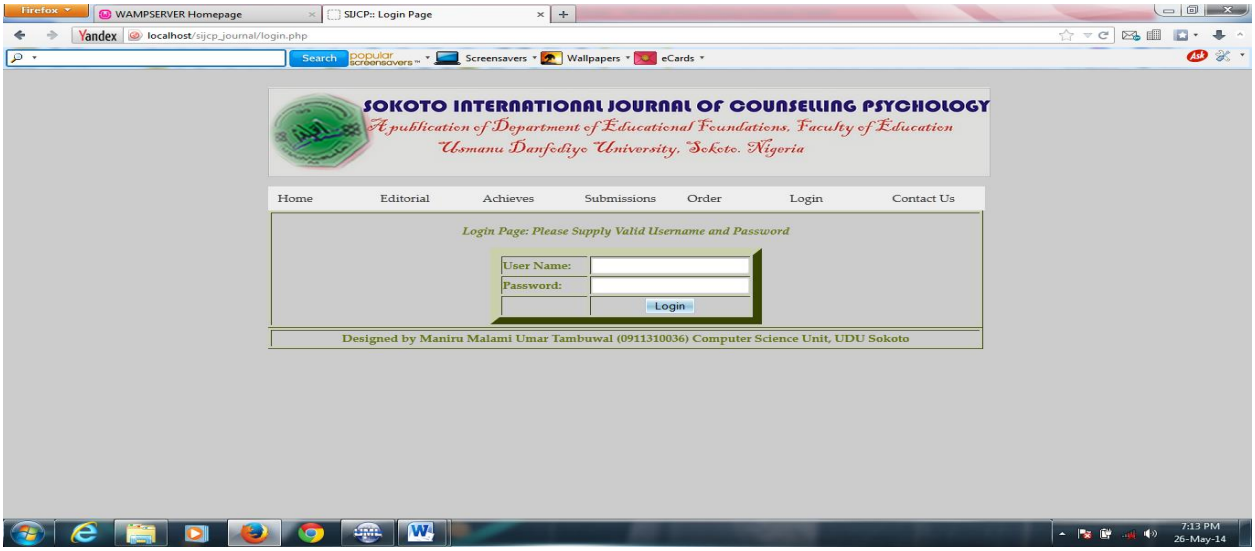

Figure 4.4: Login Page

The login page allowed registered contributors, reviewers and administrator to supply their valid usernames and password to access their various accounts.

4.9.4 ACHIEVES PAGE

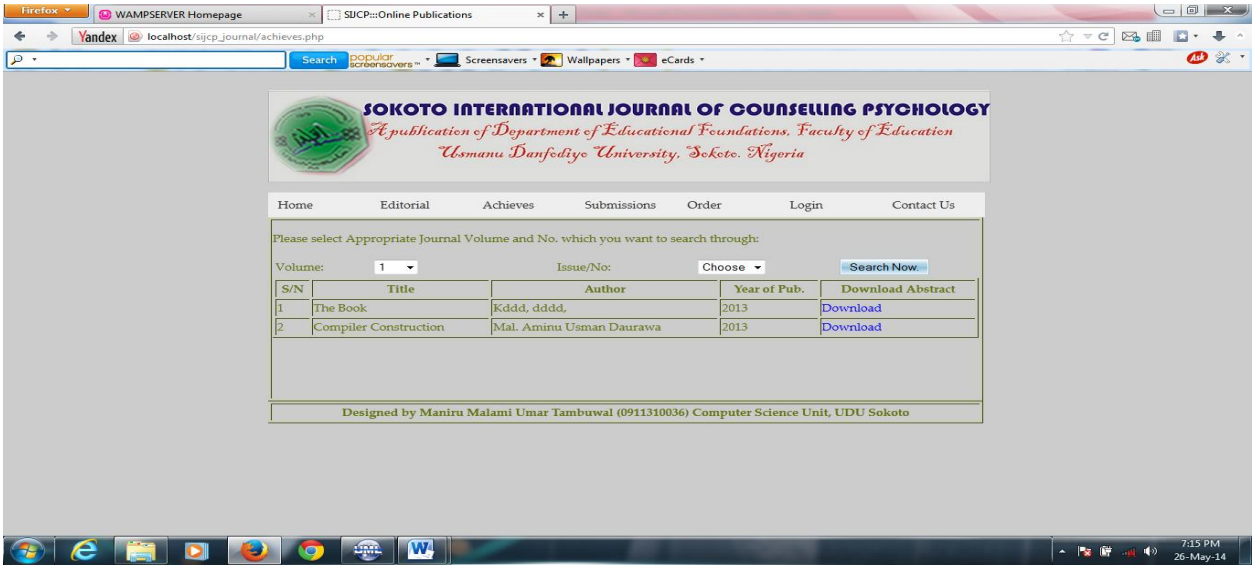

Figure 4.5: Achieves Page

The page displays all published articles that have been uploaded online by the Journal Admin.

4.9.5 ARTICLE SUBMISSION PAGE

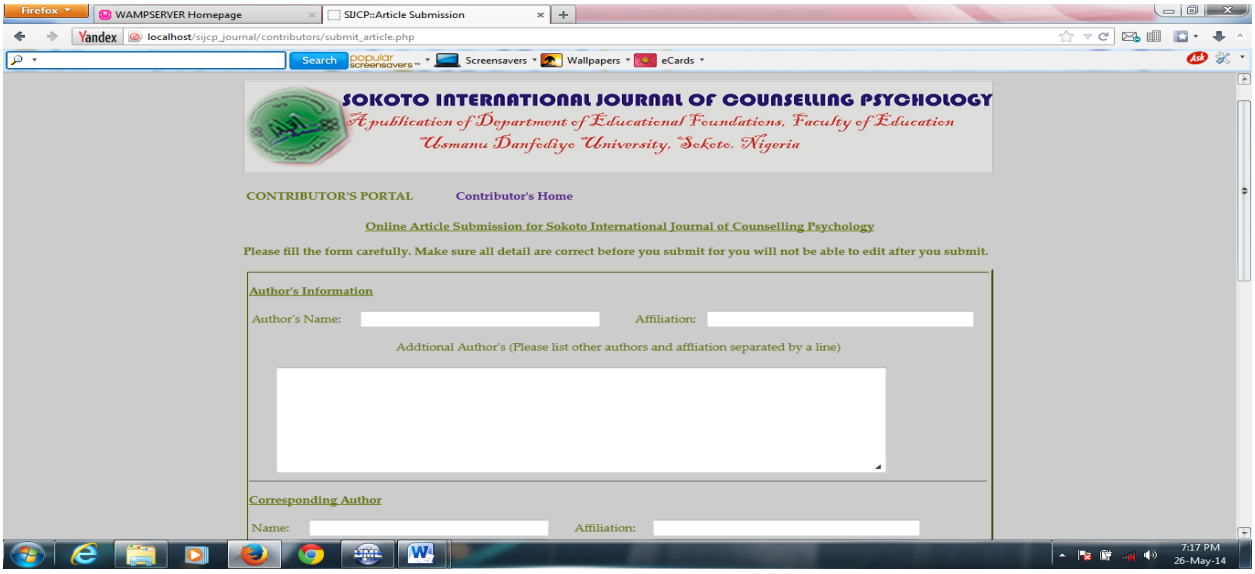

Figure 4.6: Article Submission Page

This page allows registered contributors to submit their article for review process.

4.9.6 ADMIN HOME PAGE

Figure 4.7: Admin Home page

This page enables the Journal Admin to perform all his privileges which include assigning review, downloading all submissions, adding reviewers, confirming publication payments etc.

4.10 TESTING AND EVALUATION

Before actually implementing the new system into operation, a test run of the system is done for removing the bugs, if any. It is an important phase of a successful system. After codifying the whole program of the system, a test plan should be developed and run on a given set of data. The output of the test run should match the expected results. Sometimes system testing is considered as part of the implementation process.

Monica (2009) stated that Testing a system often requires much effort as developing it. Though it does not usually involves much planning because sometimes it is regarded as the final stage of every systems development. The purpose of testing is to prove that the developed system addresses the pre-defined requirement and will operate efficiently and accurately after being

implemented. System testing should prove that the system works as intended and its acceptable of some if not all users that will come across it.

Usability testing was carried out to test if the system is easy and can be used effectively and efficiently by the users. A questionnaire was administered to Fourteen (14) users after demonstrating the system to them at their various institutions. Four (4) users were from Usmanu Danfodiyo University, Sokoto, Six (6) users from Shehu Shagari College of Education, Sokoto and four (4) users from Sokoto State University Sokoto.

Evaluation can be considered as a process which involves knowing how good, useful or success of the system designed. Through the testing that was carried out, it can be seen that the system design was useful and successful which is the aim of every system. The result obtained from the questionnaires is shown in the below table:

Ques.	**System Features**	**5**	**4**	**3**	**2**	**1**
Q1	Is the system easy to use?	6	5	2	1	0
Q2	Are the Font size, font type and graphics ok?	3	6	1	4	0
Q3	Are the Navigation, Login and other forms easy to use?	3	10	1	0	0
Q4	Is Submission Process easy and ok?	3	6	1	4	0
Q5	Is tracking of submission easy and ok?	4	4	2	4	0
Q6	Are the modes of payments for assessment, review and journal order ok?	3	4	1	5	1
Q7	Is the review Process i.e. assigning review, online assessment etc. ok?	3	4	5	1	1
Q8	Is searching or Retrieval, download and viewing of online publications easy?	4	8	1	0	1
	Total	**29**	**47**	**14**	**19**	**3**
	Percentage	**25.89%**	**44.56%**	**10.92%**	**16.96%**	**2.67%**

Table 5.1: Summary of data obtained from questionnaire

Note: 5= (Strongly Agreed), 4= (Agreed), 3= (Strongly disagree), 2= (Disagreed), 1= (Can't say)

4.11 RESULT INTERPRETATION AND DISCUSSION

From the table above, the research indicated that users responded to question one which is; Is the system easy to use? As; six (6) respondents strongly agreed, five (5) respondents agreed, two (2) respondents strongly disagreed, one (1) respondent disagreed. Therefore we can say that the system is easy to use having eleven (11) respondents agreeing that it is easy to use compared to only three (3) that disagree.

The result also shows that the question "Are the Font size, font type and graphics ok?" have response as: three (3) strongly agreed, six (6) agreed, one (1) strongly disagreed, four (4) disagreed. Therefore, we can also say that the font size, type and graphics are ok since we have nine respondents that agreed with it.

The third question "Are the Navigation, Login and other forms easy to use?" have response as; three strongly agreed, ten agreed, one strongly disagree, no user disagree. Therefore the result shows that the navigations and forms are easy to use since thirteen respondents agreed with it.

The forth question "Is Submission Process easy and ok?" gets; three strongly agreed, six agreed, one strongly disagree, four disagreed. Also from the result shows that the submission process is easy since nine respondents agreed with the question.

Question five "Is tracking of submission easy and ok?" have responses of four strongly agreed, four agreed, two strongly disagreed, also four users disagree. Therefore the tracking of submission is easy since eight users agreed that it is easy.

Question six "Are the modes of payments for assessment, review and journal order ok?" three strongly agreed, four agreed, one strongly disagreed, five agreed and one user doesn't

know what to say. Therefore there is a great challenge here because seven respondents agreed and six disagreed with the mode of payments, this need to be enhanced.

The result shows that question seven “Is the review Process i.e. assigning review, online assessment etc. ok?” three strongly agreed, four agreed, five strongly disagreed, one disagreed and one user doesn’t have anything to say. Therefore also in this aspect we have a challenge because seven respondents agreed with it and six disagreed, this need to be enhanced.

The last question “Is searching or Retrieval, download and viewing of online publications easy?” four strongly agreed, eight agreed, one strongly disagreed, no user disagreed and also one user doesn’t know what to say. There this question has a positive answer from twelve respondents.

Finally we can say that from the above result, the responses with strongly agreed status have the highest percentage of 44.56%, followed by agreed with 25.89%, disagree with 16.96%, strongly disagreed 10.92% and respondents that can’t say anything with 2.67%. There some part of the system needs to be enhanced. These parts are the parts where we have high response of respondents that disagree which are question six and seven that are asking about mode of payments and online review process. Below is the graphical representation of the result:

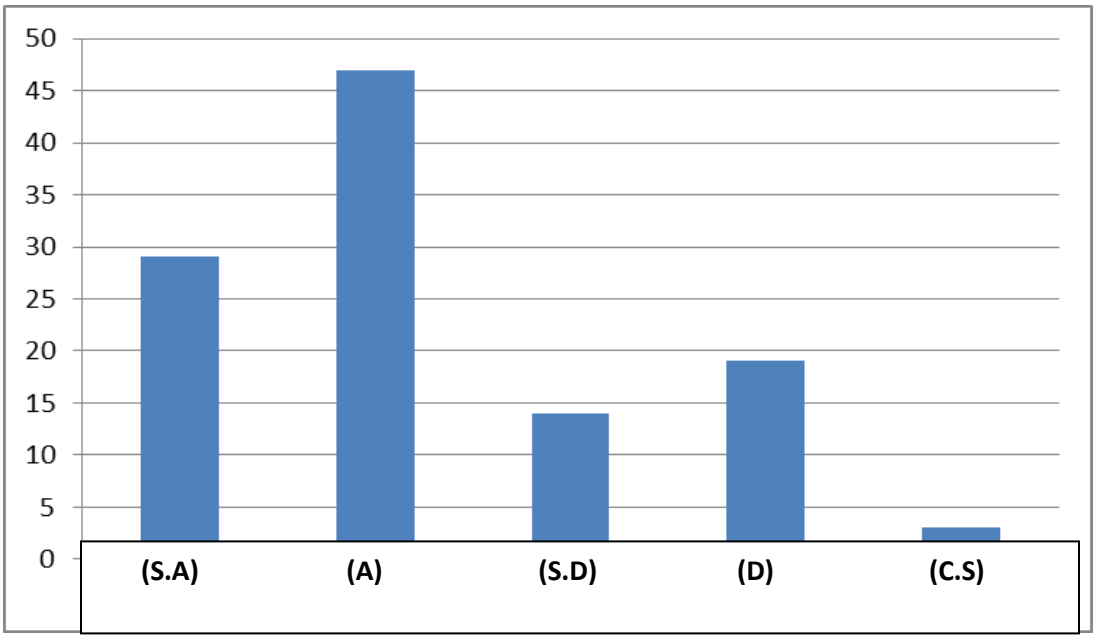

Figure 5.1: Graphical Representation of the data using Bar Chart

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 SUMMARY

The system for Online Journal Management system (A case study of Sokoto International Journal of Counseling Psychology) has been successfully designed. This project research work consists of five chapters are will be summarized below:

In chapter one, background of the study, statement of the problem, aims and objectives, motivations, scope of the study, limitations of the study and definition of some terms were discussed.

In chapter two, relevant literatures were discussed; concept of journals, classifications of journals, online (electronic journals), features of online journals, advantages of online journal, disadvantages of online journals, review of existing online journal system and software tools that were used in the development of the system such as HTML, PHP, JavaScript, MySQL etc.

In chapter three, analysis was carried out in terms of; analysis of the current manual system, analysis of the input, analysis of the output, analysis of the existing system procedure, files maintained, web-design methodology and the expectations of the new system were discussed.

In chapter four, a detailed explanation of the new proposed system was given in a general term covering; new input requirements, new system procedure, new output requirements, new files maintained, new system requirement (both hardware and software), use case modeling, database design(modeling), system implementation which include all user interface implementations were all discussed.

Finally, chapter five gives us a brief summary of all the previous chapters. Also in this chapter, all necessary documents used in the course of carryout this research will be well referenced. The chapter also contains conclusion, recommendation and suggestions for further research, references and appendices.

5.2 CONCLUSION

The effort being putten together for this project research have finally yielded a positive result. The Online Journal Management System will now have a positive impact on the current manual system being used by the Journal Administrators. This lead to the conclusion of saying that the aim of the project has successfully been achieved. Proper and well usage of the developed system will facilitate and ease almost all the processes involved from the stage of article submission up to the stage of article publication. The developed system also need to be hosted onto the World Wide Web (www) so as to be accessed and used by other researchers and users around the world.

5.3 RECOMMENDATIONS

Having developed the new system for Journal Management to Sokoto International Journal of Counselling Psychology (SIJCP), below are my recommendations/suggestions:

i. The designed system should be hosted on the World Wide Web (www) so that other researchers and users around the world can fully use the system.

ii. If hosted on the www, the system should be periodically updated with latest information about call for articles, review process or any other information concerning the Journal.

iii. The system should be fully implemented and adopted by the Journal Administrators i.e. all functionalities right from the stage of article submission up to the last stage which article publication should be fully used by users, administrators, reviewers and researchers.

iv. The system should be properly advertised by means of either television media, newspapers, magazines, notice boards in some institutions, other journals or even using Google advertisement.

5.4 SUGGESTIONS FOR FURTHER RESEARCH

The system at its current state can be implemented and will function effectively. But for the sake of other interested students that will like to extend this project in the near future, I have the below suggestions for them:

i. The result of the analysis obtained after the usability test shows that payments methods used by this system are not sufficient therefore I will suggest and improvement in the methods of payment such as adding more payment options like Paga, Interswitch, and PayPal which are globally accepted and secured.

ii. Also the result indicated that the review process has not been accepted by many respondents, so I will suggest an improvement in that part.

iii. Tracking of submission should be a little bit made easier by having a module where a researcher can only supply his submission Id to check the status of his submission without login into his account.

iv. The system should be integrated with an SMS API which will be used to send notifications to users, researchers and reviewers to their Mobile phones.

v. A mobile version (application) for the system that can run on Windows, androids and Black-berry mobile phones since the world is now moving to a mobile world.

vi. Finally, I will suggest an interested student that wants to continue with this project to go through other Online Journal websites and the current system procedure to upgrade this system based on the status of the period he/she is.

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APPENDIX A: QUESTIONNAIRE FOR SYSTEM EVALUATION

USMANU DANFODIYO UNIVERSITY, SOKOTO
DEPARMENT OF MATHEMATICS
COMPUTER SCIENCE UNIT

QUESTIONNAIRE FOR EVALUATING ONLINE JOURNAL MANAGEMENT SYSTEM FOR SOKOTO INTERNATIONAL JOURNAL OF COUNSELLING PSYCHOLOGY (SIJCP)

I am Maniru Malami Umar Tambuwal by name, studying B.Sc. Computer Science at Usmanu Danfodiyo University Sokoto and currently undertaking a research project on Design and Implementation of an Online Journal Management System. The system was built with the aim of eliminating the current manual system used by the Journal Board such as submission of articles, tracking of articles, review process, publication payment, online publication etc. Please contribute toward the existence of this research work by TICKING appropriately.

Name: …… Staff No: ……

Institution: ……

S/N	Questions	Strongly Disagree	Disagree	Agreed	Strongly Agreed	Can't say
1	Is the system is easy to use?					
2	Are the Font size, font type and graphics ok?					
3	Are the Navigation, Login and other forms easy to use?					
4	Is Submission Process is easy and ok?					
5	Is tracking of submission easy and ok?					
6	Are the modes of payments for assessment, review and journal order ok?					
7	Is the review Process i.e. assigning review, online assessment etc. ok?					
8	Is searching or Retrieval, download and viewing of online publications easy?					

If you have any comment, please provide in the below space:

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……
……
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Thank you for your time.