

Designing Of an Online Employee Assessment and Performance Evaluation System for Private Universities in Nigeria

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Abstract

The success of any organization, establishment or institution depends on its ability to evaluate the performance of each employee, to assess the contribution of each employee towards achieving the vision, mission, goals and objectives of such establishment. No organization can attain its desired goals and objectives without its workforce. Therefore, employees are an important factor in any institution as they stand as the core of the institute. Performance evaluation is an important component of the human resource management and it is widely used method to evaluate the employees in an effective manner. It is needed to recognize and reward the performance of the employees to improve their commitment and satisfaction. However, the most common method of evaluation in most Universities still remains the use of paper based assessment forms or physical presence of employees, this method wastes time, energy, tend to be bias and very slow and most likely lead to loss of records.

Therefore this study identifies some challenges in the existing paper based system, proposed and a prototype design of an online based Employee assessment and evaluation system which will be an improvement upon the existing system.

1. Introduction

The progress and success of any organization, establishment, or institution depends on its ability to evaluate the performance of each employee, to assess the contribution of each employee towards achieving the vision, mission, goals and

objectives of such establishment. No establishment can attain its desired goals and objectives without the employees. The goals and achievements of an organisation rest on the quality and characteristics of the employees [1]. The management cannot simply attain their desired goals and objectives without the employees, because the employees are an important factor in any institution as they stand as the core of the institute. Employee Performance means employee productivity and performance evaluation is the review of an employee's work based on a set of specific criteria or standards of that organisation . The performance review generally looks back at an employee's performance over the past year and involves setting new plans and goals for the year ahead. Employee performance reviews are necessary at all universities to assess a staff member's progress in the workplace. However, employees should no longer need to be filled out on reams of paper, scanned into a management system, and stored in a filing cabinet. The use of the Employee Performance evaluation system should digitally complete your employee assessments with no paperwork.

2. Brief Overview Of Employee Performance Evaluation System

The use of performance appraisal started as far back as the industrial revolution when it was used as a means of measuring organizational efficiency [2]. In the 1920s, Elton Mayo, the Father of Human Resources, measured the relationship between productivity and the work environment. As a result of the Great Depression, pensions, labour standards and minimum wages were instituted, which helped changed the treatment of employees in the 1940s, where managers started acting more like leaders instead of taskmasters. During that era, it was utilized as a disciplinary mechanism for punishing poor performance [5]. This resulted in the negative notation of the appraisal system which turned out to be despised by both the appraiser and the appraisee. The government encouraged worker's satisfaction in the 1950s with the Performance Rating Act which were: Outstanding, Satisfactory and Unsatisfactory, and the Incentive Awards Act, where government employees could be rewarded for good work with cash and recognition. In the 1960s pay for performance was introduced. The term "performance management" was coined by Aubrey Daniels in the 1970s and In the 1990s and 2000s a Society for Human Resource Management survey shows that only 5% of companies were very satisfied with their performance review process[6]. Despite several analysis and wide criticisms of the effectiveness and use of performance evaluation within the organizational there has been no system that has been successful

in meeting the desired goal. Performance Management began around 60 years ago as a source of income justification and was used to determine an employee's wage based on performance[9]. Organisations used Performance Management to drive behaviours from the employees to get specific outcomes. In practice this worked well for certain employees who were solely driven by financial rewards. However, where employees were driven by learning and development of their skills, it failed miserably. The gap between justification of pay and the development of skills and knowledge became a huge problem in the use of Performance Management[8]. This became evident in the late 1980s; the realisation that a more comprehensive approaches to manage and reward performance was needed.

Role of IT in Performance Evaluation

The rapid developments in the information technology have not left any sphere untouched. The organisations are growing in size, functions are working across nations and thus are becoming more and more complex to handle. More and more organisations including universities are integrating information technology into their systems, the use of IT in organizations can create an effective employee performance evaluation activities. Technology helps to measure and manage the employee performance evaluation. It helps to automate the processes involved in evaluating employees and save time and cost and also reduce the effort required and the paperwork.

Online Employee Performance evaluation

System: Online employee performance evaluation system based on an online approach that involves the administrative staff making evaluation from top to bottom and rates the performance of their subordinates 'daily, monthly and yearly tasks to assess performance and ensure training need as well.

4. Statement Of The Problem

Despite the advent of new technologies there are low number of universities in Nigeria using this technologies to evaluate their staff performance. Compared to the traditional way of evaluation, the online system will offers a more flexible, systematic feedback system, where employee can update their task any time of the month has led to the creation of online evaluating and assessing platforms. Online evaluation and assessment system is resorted to address the issue of paper based evaluation and providing more flexible approach for a management to evaluate and assess their staff which will help in reducing time, complexity and others issues associated with the paper based routine, where staff would have to write have to fill out an assessment form or be interviewed on a yearly basis.

5. Objectives

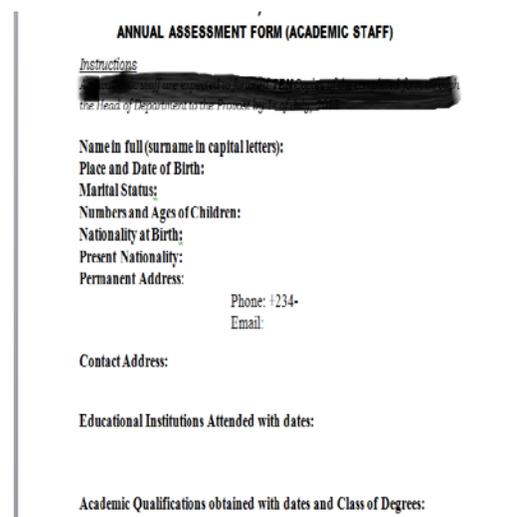
The aim of the study is to design and Implement a web-based information system for Employee evaluation. The main objectives of this system are: To analyse the existing system of evaluating employee performance, To design an employee evaluation system and implement the design using PHP and MySQL software tools.

6. Scope Of The Study

The Study is focused at achieving an efficient and effective means of evaluating and assessing employees in the university system. This study focused on how an online information system for employee evaluation and assessment would be designed using Afe Babalola University as a case study.

7. Methodology

The methodology used in this work involves gathering vital information about the existing system. The purpose of this is to identify the inefficiencies associated with the existing system to determine the requirements of the proposed system. The parameters used to collect data about requirement for the proposed system was through observation and record review. The following challenges was discovered: Filling evaluations forms and lining up before the evaluator can be tedious and often takes a lot of time to complete. Storing and maintaining these records is often mismanaged and lost in the long run.



ANNUAL ASSESSMENT FORM (ACADEMIC STAFF)

Instructions
the Head of Department to the Process of the Department

Name in full (surname in capital letters):
Place and Date of Birth:
Marital Status:
Numbers and Ages of Children:
Nationality at Birth:
Present Nationality:
Permanent Address:
Phone: +234-
Email:

Contact Address:

Educational Institutions Attended with dates:

Academic Qualifications obtained with dates and Class of Degrees:

Figure1: sample of the manual assessment form

8. The Proposed System

After critical review of the related works, the proposed system should be able to provide a platform where staff can input their quarterly or yearly task information and also for each Head of department to appraise their staff through the same channel and later transferred to the school management for recommendations and promotions.

In designing the proposed system, the software development lifecycle ought to be followed. also the different users of the system is identified. Apart from the system administrator, there are other three users of the system namely:

-The Department: The department reviews the entire task performed by all departmental staff and evaluate them using the task and a set of evaluating method.

-The Employee: The employee performs all duties expected by the department and the school.

-The Evaluator/management: The evaluator review employee's assessment and determine sanctions, rewards or promotions.

The design model follows Waterfall model which a sequential development approach, in which development is seen as flowing steadily downwards through the phases of requirements analysis, design, implementation, testing (validation), integration, and maintenance.

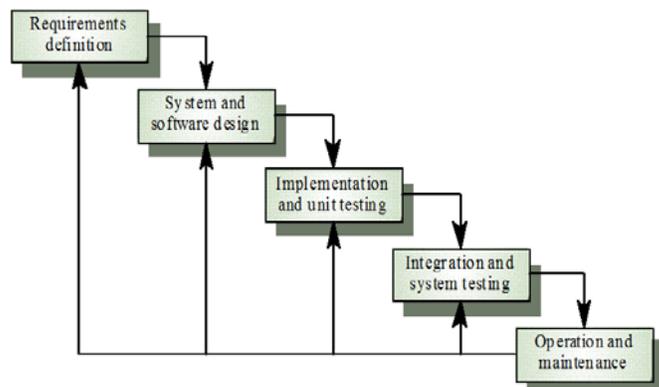


Figure 2: Waterfall development process model

Proposed system requirements: System requirements are the functions the system can perform. This can also be subdivided into: Functional Requirements and non-functional requirements. Functional requirements are the key functions that must be present in the system. The functional requirements of this system are:

- The system login and logout users.
- The system enables employees update their tasks.
- The system enables the department coordinator to review employee's tasks.
- The system enables department set evaluating questions
- The system enables employees to answer evaluating questions
- The system enables both the department and employees to upload and download supporting documents.
- The system enables the evaluator review employee's assessment and recommend sanctions, rewards or promotions

Non Functional Requirements: addresses other aspects of the system other than its specific functions which includes the following:

Response Time: Response time is the time

taken for a message to be sent and receiving a response or reply.

Efficiency: ability of the system to function to its maximum, thereby meeting the stated objectives.

User Friendliness (User Interface): the system should be designed in a manner that it can be used and manipulated by the

intended users easily without stress. The system interface should be user friendly thereby eliminating hassles in manipulating the system.

Hardware Requirements includes; Hardware Type- Desktop, Laptop computer, Platform- Windows OS, Disk space (3 GB above to store all information), Pentium IV and above Memory (1 GB above) among others.

9. Architectural design of the system

The software uses a 3-Tier Architecture which is: Front-End (User Interface), Middle tier (PHP Server) and Back-End (MySQL Database).

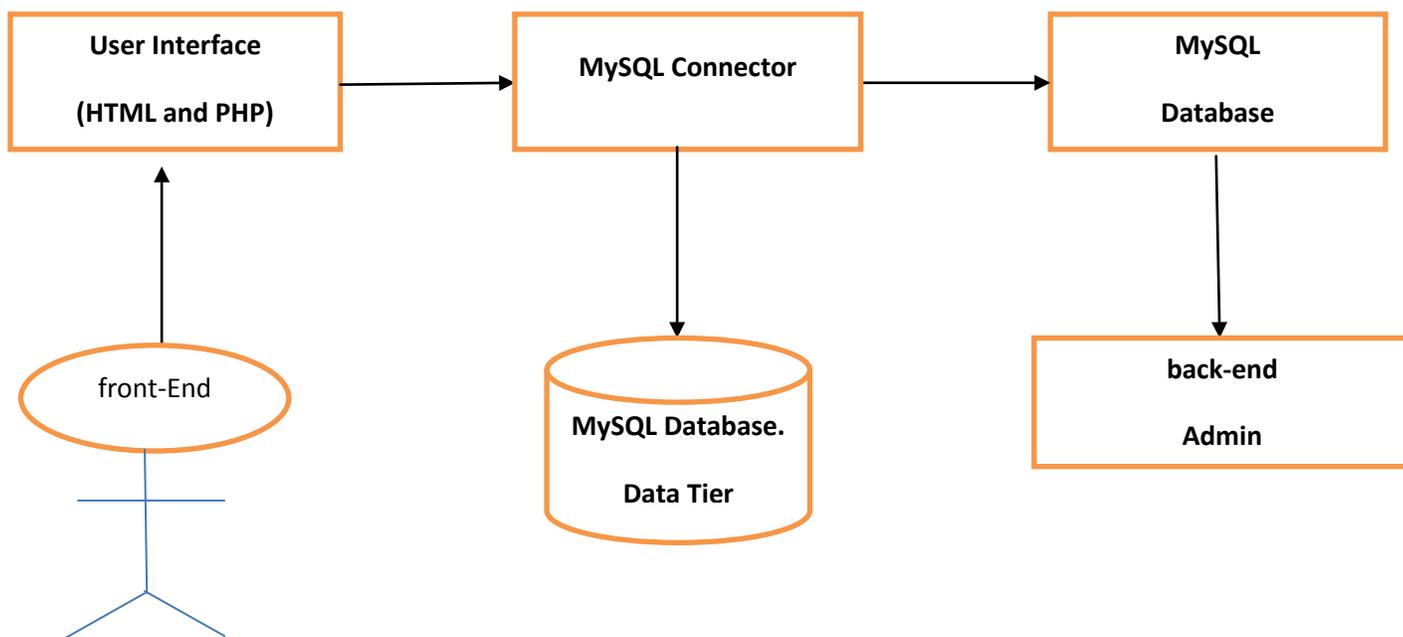


Figure 3: Architecture of the System for Employee Performance Evaluation

System flowchart: the flowchart illustrates the flow of events from one system component to another, showing how different processes are initiated and terminated in a system.

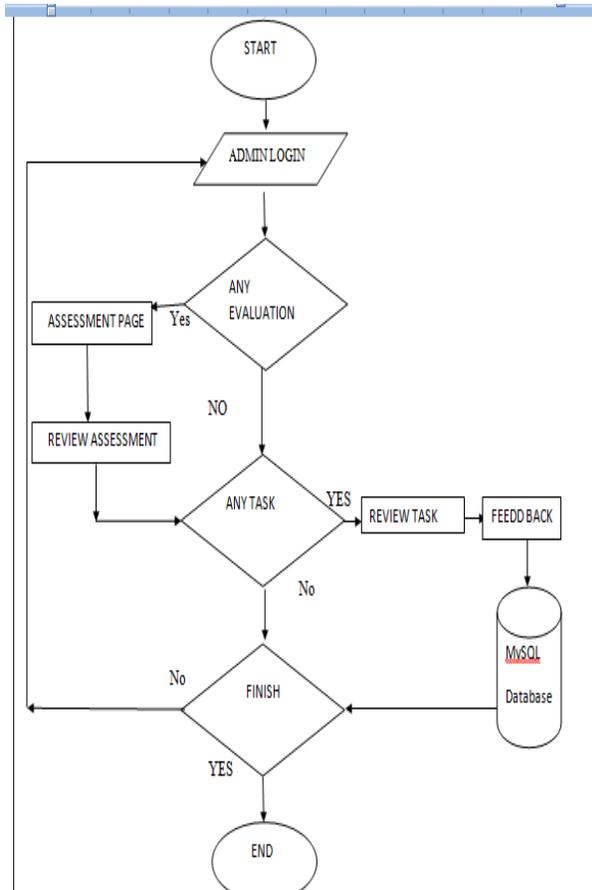


Figure 4: Department System flowchart

Use case diagram: is one of the UML diagrams under the sub-category: behaviour and it is used to show the functionality provided by a system in terms of actors. The use cases of the system for university employee performance evaluation are: **The Department:** The department, as a user of the system can perform the following functions: Login to the system, View submitted tasks, Print submitted tasks, Provide feedback, Give evaluating assessment, Upload, view and download materials. **The Employee:** The employees

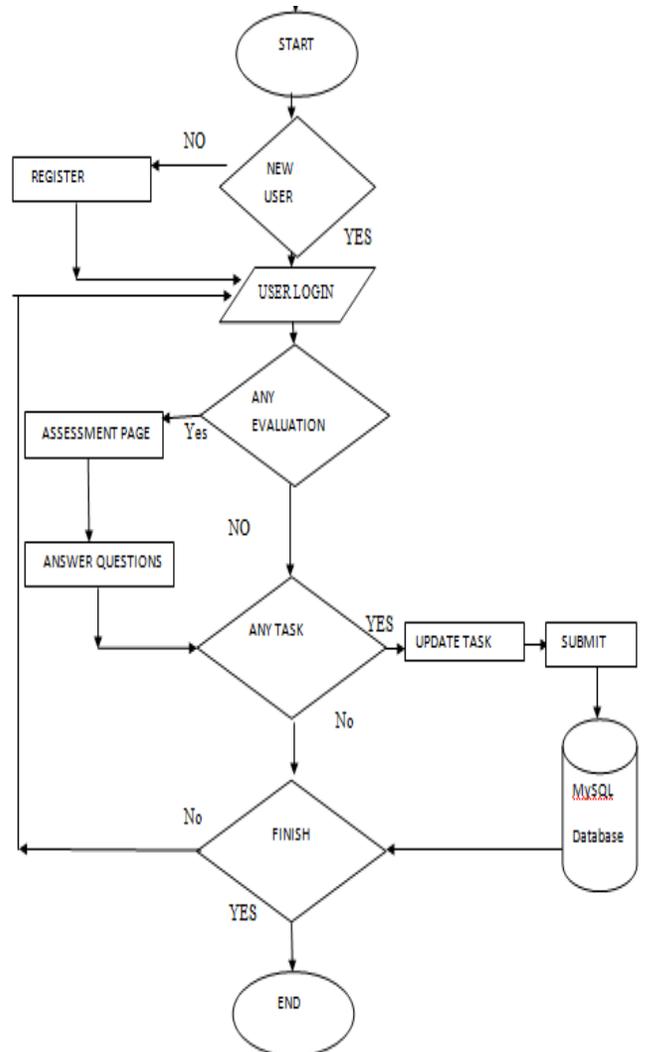


Figure 5: Employee System flowchart

can perform the following functions on the system: Login to the system, Update their tasks, Upload, view and download materials, Read feedbacks, Answer evaluating assessment. **The evaluator:** performs the following read through the tasks, provide feedback and generate report.

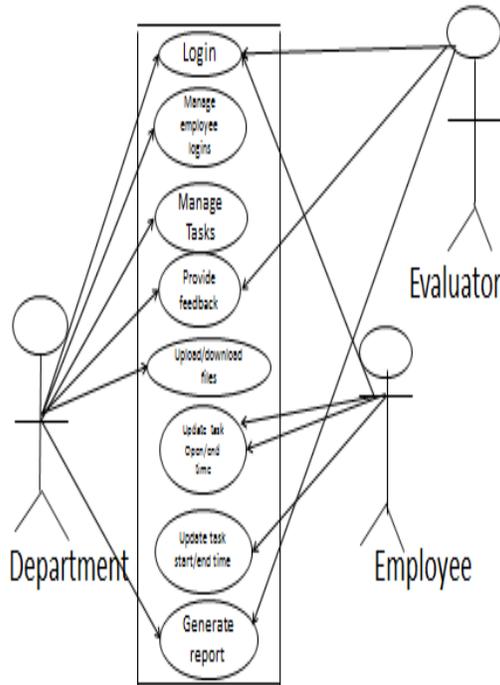


Figure 6: the system use case

The Proposed System Structure Database: A database is a repository for storing data and information. The structure holds the data of each employee with the following tables: official email, Staff Id, username, password, name, lame, verification code. The diagram below shows the database used in MySQL

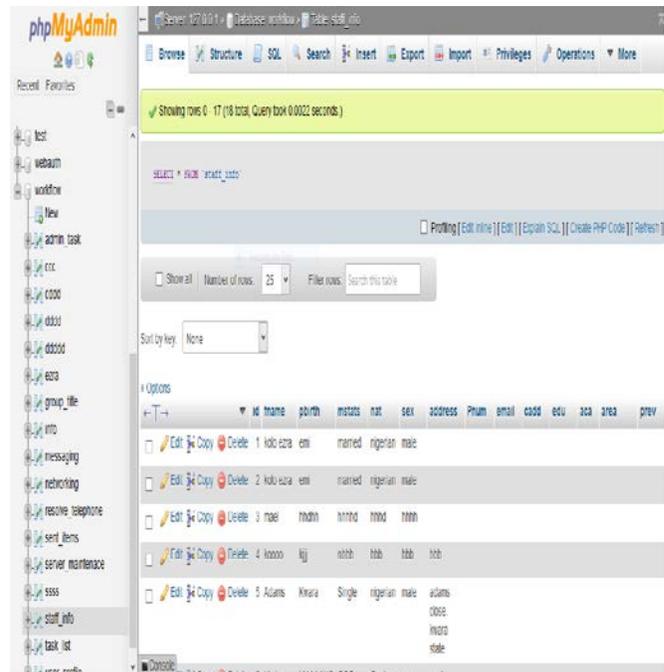
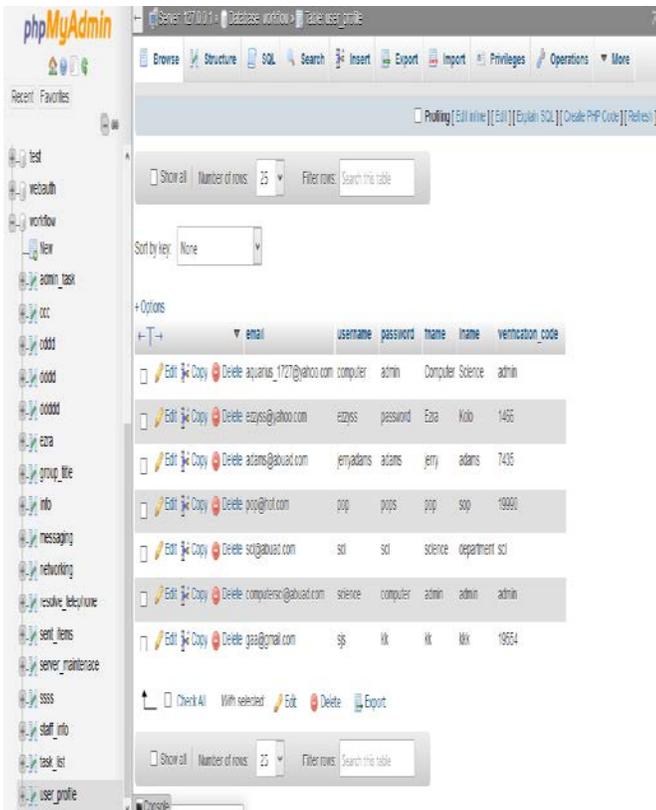


Figure 7: Structure of the database



The User Information structure (figure 8) is classified into; core-which is the Interaction between the database and all sections in the system, Task Analysis- This section update tasks and also to view updated tasks and Assessment: This section is used to fill the online annual assessment form and evaluate filled forms.

10. The Functionability And Workability Of The System

The system interface is designed in the form of a webpage with five hyperlinks.

Login Page: This is the hyperlink that introduces the project and it is the landing page of the website. It is the interface where all the users can sign in to

figure 8: user information

Signup Page: This is the hyperlink where new users can sign up to have access the system.

Verify Page: This is the hyperlink where new users can verify their sign up details using registered email and verification code sent to their email.

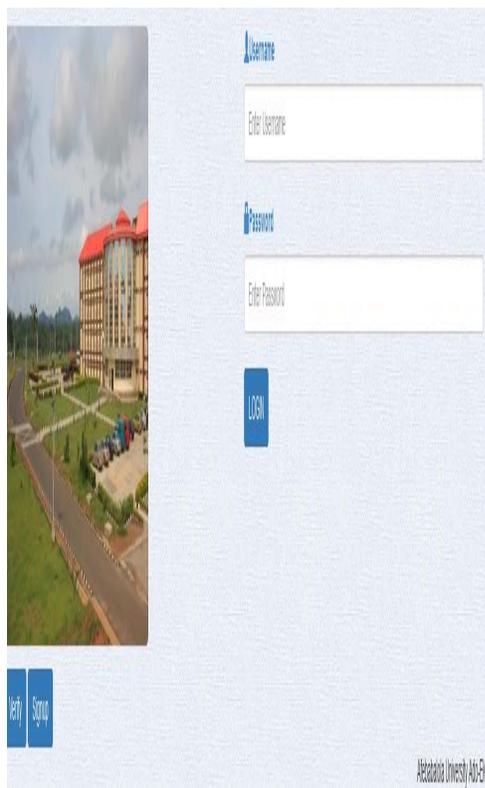
Department Page contains; Homepage: The department page consist various functions such as: task management, staff

have access to the system.

various functions such adding task and viewing employee’s tasks. Assess: The department can view the assessment form completed by employee and also give feedback.

Staff page contains; Task and updates: The employees can update their task on this page and Assessment page where employees fill the online assessment form.

Figures 9,10,11,12,13 and 14 illustrates sample pages for the proposed system



ement. Manage: The department can manage

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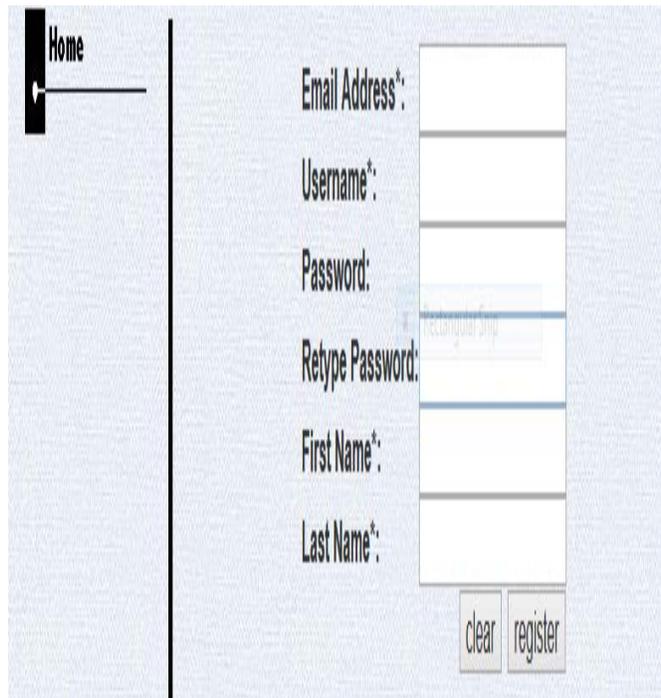
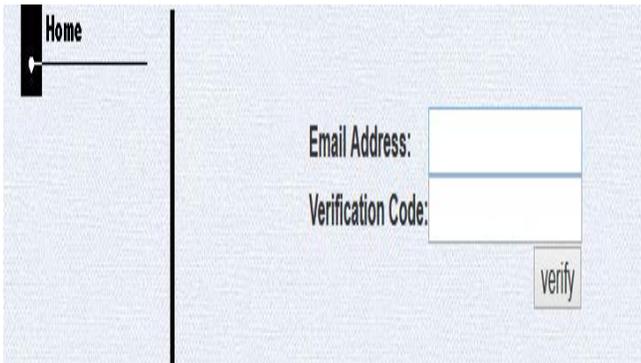


figure 10:sign up page

Figure 9:Login page

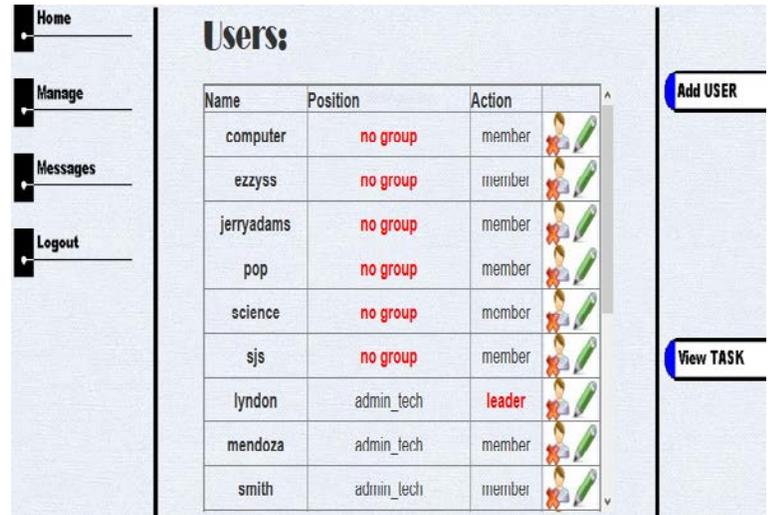


Home

Email Address:

Verification Code:

figure 11:verification page



Home

Manage

Messages

Logout

Users:

Name	Position	Action
computer	no group	member
ezyyss	no group	member
jerryadams	no group	member
pop	no group	member
science	no group	member
sjs	no group	member
lyndon	admin_tech	leader
mendoza	admin_tech	member
smith	admin_tech	member

Add USER

View TASK

figure12:Admin page



Fellowships and Scholarships with dates:

Administrative Experience (if any) :

Membership of Professional Organizations:

Commendations and Honours:

Professional Accomplishments:

International and local Research Support :

Teaching experience:

Courses taught during the current Academic Session:

Major Research, Project and Inventions:

Postgraduate Supervision:

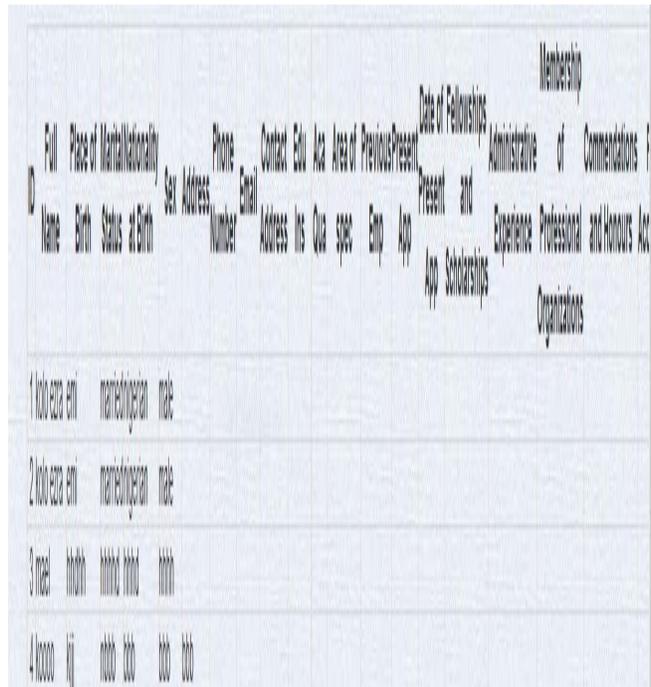
Publications:

Conferences, Seminars and Workshop attended:

Boards and Committee on which you served:

Community Service within and outside the University:

Figure 13:sample page of online assessment



ID	Full Name	Place of Birth	Nationality	Sex	Phone Number	Contact Address	Edu. Address	Area of Spec.	Present Emp.	Date of Present App.	Membership Present and App. Scholarships	Administrative Experience Professional Organizations	Commendations and Honours Acc.
1	valveza eni	manidonejon	mae										
2	valveza eni	manidonejon	mae										
3	mael	hhhh	hhhh	hhhh	hhhh								
4	kkoo	ijj	kkk	lll	mmm								

Figure 14:sample page of evaluator comments and recommendations

11. Conclusion

The employee performance evaluation has been successfully designed and structured developed for the use of higher institutions, various departments and members of staff. In other to be able to evaluate and manage staff within University community, Afe Babalola University was use as a case study, a software program was designed and structured to evaluate Afe Babalola University staff Workflow system and performance. This system will be of immense importance in bridging the gap between employers and employees. However, the implementation of this work is left for future research.

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