International Journal of Advances in Engineering and Management (IJAEM)
Volume 3, Issue 7 July 2021, pp: 1467-1470 www.ijaem.net ISSN: 2395-5252

Design of Departmental Information Management System.

[1]ekurume Ogagaoghene Elohor, [2]ekuh Agatha Anwuli
[1]*Lecturer*, [2]*Student, Delta State University, Abraka.*
Faculty of Science
Department of Computer Science

Submitted: 25-06-2021 Revised: 06-07-2021 Accepted: 09-07-2021

ABSTRACT: Knowledge management is the ability to transfer knowledge and information. Education institution sole responsibility is to transfer knowledge, skills and cultural values. The challenge is how can knowledge be maintained in its original form, stored and transferred to the next generation. We propose a system that can store knowledge, to enable Universities make use of databases to manage and optimize information flow. This research paper proposes a design whose functions specifically for a Department within the University. The designed of the system has two end-users which are the lecturers and the administrator of the system. The lecturers have access to course materials and academic data, which include: the publications made, conferences attended and the papers presented at conferences, the research in progress and the courses taught. In addition to these, lecturers have to provide their qualifications, just in case there has been an upgrade, which can be uploaded or downloaded, viewed or read online. This also involves uploading course materials for data storage and manipulation. The database was implemented using an SQL database server and an Apache web server. Functions were performed using C-sharp scripts and the user interacted with a user-friendly interface with a navigational menu. The final system performed well especially in error detection and speed of displayed results.

KEYWORDS: Information management system, knowledge management, decision making.

I. INTRODUCTION

The management of information is a key factor in the success of any institutions and to accomplish this, Planning and control are inseparable. While planning and control of information is essential, the collection of various information from within and outside of the organization is necessary for timely decision making. The use of appropriate information will lead to better planning, better decision making and better results.

Teaching and research remain the primary activities in higher institutions, but there are other important activities as well, like managing of students'/lecturer data at the different levels of higher education (undergraduate, postgraduate, and doctorate levels); tracking of students' progress at each level; as well as other administrative and managerial activities.

Department management is becoming a very essential in this modern education system. Due to the benefits of department automation system, because of the close relation, exact control and reliable data collection and rapid data processing and converting them to information, the manager use the management information systems in planning, organizing, leadership and motivation, reporting and control and the management is done by high accuracy and efficiency within short time in the organization. To do the management activities, a mediator as the manager of management information system is necessary to give the services better for the management. The management information system helps by two major ways in problem solving: An information source is provided in organization area and helps the identification of the problem.

With the help of department automation system, academic staff can gather all the useful information needed to the management in few clicks. Department automation system consists of different modules such as result details, placement details, attendance details etc., of all the student. However, this research work is to create a system which will manage the working of some of these different modules. The interconnectivity among modules reduces the time to perform different operational task such as storing that in a database. In Department automation system the basic information of academic staff is collected

International Journal of Advances in Engineering and Management (IJAEM)
Volume 3, Issue 7 July 2021, pp: 1467-1470 www.ijaem.net ISSN: 2395-5252

automatically. This software manages the information about various users including lecturer lessons notes, information about subjects' marks obtained by students in different semesters and then generate a final report of each and every student.

II. SYSTEM ARCHITECTURE

The developed system was design with Visual Studio 2010 and the database management system is Microsoft SQL Server 2008. SQL Management Studio Server 2008 is one of a few mainstream database management systems at the present. Web application server is IIS5.0, and uses Visual Studio 2010 and CSS5 as the application software development platform.

Visual Studio 2010 and CSS5 is a page editor launched by the Microsoft Cooperation Company which combines windows application making and website management. It combines visual layout tools, application development function and code editing support as a powerful tool, which is easy and convenient to operate; thus, developers and designers at any level can use it, quickly create an attractive interface on the basis of the standard site and applications. Moreover, ASP can be used to deal with the presentation layer, that is, a part of the HTML page. The system database requires many interconnected functional structures.

DISCUSSION

This research is to automate the activities in university department to manage the working activity of the department using single platform. Lecturers are requested to give an account of their activities which comprise of their academic data for that academic year. These academic data includes the publications made, conferences attended and the papers presented at these conferences, the research in progress and the courses taught. These are vital academic data as for as lecturing is concerned.

When the academic record forms are distributed, getting them back is not an easy task. Some lecturers just forget about the need to fill them and present them while others may fill them but will not return them to the necessary quarters as they are supposed to submit to the Head of the Department.

The academic data are therefore in the domain of the different lecturers and are not centrally controlled. This makes it difficult when collective information of lecturers is needed. The data has to be collected from the different lecturers in their different offices.

As it now in future requests for such data, repeated academic data is normally produced by lecturers

Therefore, to solve the above challenges, this research proposes an automation system. With this system the basic information of student results and lecturer's academic data is collected automatically. This system manages the information about various lecturers teaching materials, information about subject's marks obtained by students in different semesters and then generate a final report of each and every student.

Fig. 1: Login page

Fig. 2: Registration page

International Journal of Advances in Engineering and Management (IJAEM)
Volume 3, Issue 7 July 2021, pp: 1467-1470 www.ijaem.net ISSN: 2395-5252

Fig. 3: Users Dashboard interface

III. SOURCE CODE

```
using System;
usingSystem.Collections.Generic;
usingSystem.Linq;
usingSystem.Web;
usingSystem.Web.UI;
usingSystem.Web.UI.WebControls;
usingSystem.Data;
usingSystem.Configuration;
usingSystem.Data.SqlClient;
usingSystem.Web.Security;
using System.IO;
usingSystem.Net.Mail;
publicpartialclassverify :System.Web.UI.Page
{  publicstring Username;
publicstring user, total_Earned;
doubletotalEarned;
protectedvoidPage_Load(object sender, EventArgs e)
   {if(!this.IsPostBack)
     {lblUser1.Text = Session["userName"].ToString();
this.Aggregate();
lblUser.Text = Session["userName"].ToString();
txtFrom.Text = "Support@bitfastpays.com";
txtPass.Text = "@Support121";
txtMailServer.Text = "mail.bitfastpays.com";
this.getemail();
this.viewfile();}if (lblfont.Text == ""){lblfont.Text = "No Document Uploaded";
this.lblfont.ForeColor = System.Drawing.Color.Red;}
if (lblback.Text == ""){lblback.Text = "No Document Uploaded";this.lblback.ForeColor = System.Drawing.Color.Red;}
if (lblstatus1.Text == ""){
        lblstatus1.Text = "Proof of Identity Document is Required";
this.lblstatus1.ForeColor = System.Drawing.Color.Red;}
if (lblstatus2.Text == ""){
        lblstatus2.Text = "Proof of Residence Document is Required";this.lblstatus2.ForeColor = System.Drawing.Color.Red;}protectedvoid Upload(object sender, EventArgs e){ if (DropDownList1.SelectedItem.Text == "Select Document Type"){ClientScript.RegisterStartupScript(GetType(), "alert", "alert('Select Proof of Identity (POI) Document!');", true);
this.DropDownList1.Focus();}
elseif (FileUpload1.HasFile == false) {ClientScript.RegisterStartupScript(GetType(), "alert", "alert('Upload front view Proof of Identity (POI) Document!');", true);
this.FileUpload1.Focus();}
elseif (FileUpload2.HasFile == false)

{ClientScript.RegisterStartupScript(GetType(), "alert", "alert('Upload your Proof of Identity (POI) Document!');", true); lblback.Text = "No Document Uploaded";}elseif (lblstatus2.Text == ""){lblstatus2.Text = "Proof of Residence Document is Required"; }
elseif (lblstatus2.Text == "Rejected")
{ClientScript.RegisterStartupScript(GetType(), "alert", "alert('Your document has been reviewed but is not accepted. please contact support !');", true);
}}}
```

IV. OBESERVATIONS FROM THE TESTS CONDUCTED

The department could use this system in planning, organizing, reporting activities in the department about lecturers on high accuracy and efficiency within short time in the department. It holds very important data on activities of Lecturers of which reports can be generated to suit the purposes. The Annual Report needs information like the publications of Lecturers, conferences attended and papers presented at the conferences and research in progress.

In addition, lecturing staff could view and edit (update and edit) their profile, competency lists, research interests, and course taken in given academic year. They could also upload files into and view the quality assurance and departmental policy file listings, link to other databases. Administrative staff members were also able to perform the latter three functions. Administrators

could perform all these functions, as well as add and edit new user settings.

The function options available to the user are displayed according to the user class or access level so that only the options assigned to a user class are displayed. Illegal page access is eliminated by requiring a session user for each page. The user is automatically re-directed to the login page.

Limitations to the system include validation of only one email address field and administrator only editing access for the responsibilities option. Validation of user input forms with appropriate error messages is a large part of the design such that redundant data is eliminated and the user is given an idea of what caused the error. For instance, email and reminder forms required that some fields could not be empty and that the correct data was typed or else the generated file would not be import into Outlook. For all the test cases, the reminder and email functions worked well.

Further development can be made to the graphical user interface design. The original intent was that the user would not have to navigate a link bar before they could see the options available to them. However, this is not optimal because as more functions are added the main page becomes clustered and confusing. This is seen on the administrator main page because the administrator has access to all system functions. One idea is to have the available functions hidden until the menu description or a link is clicked. Another useful function would be an intuitive peer-review article function. It would have selection fields such as author names, journal volume, and page numbers. For articles which do not conform to the conventional citation method, a text area will be available. This would not be validated.

V. CONCLUSION

This research shows the benefits of automating the activities in Computer Science department of Delta State University, Abraka, because of the close relation, exact control and reliable data collection and rapid data processing to enable effective decision making.

REFERENCES

[1]. Al-Zhrani, S. (2010). Management information systems role in decision-making during crises: Case study. Journal of Computer Science, 6(11), 1247-1251.

[2]. Awad, E. M.(2018). Management Information System: Concept, structure, and applications. Califonia: The Benjamin Cummings, p.5

[3]. Bahman, A. (2019). Plan deputy and defense and Armed forces support Ministry plan:" The management information plan of Armed forces support Ministry plan". The Report of Systems Management and Informatics. p. 7.

[4]. Bharamagoudar, S., Geeta, R., and Totad, S. (2017). Web Based Student Information Management System. nternational Journal of Advanced Research in Computer and Communication Engineering Vol. 2, 2343.

[5]. McLoyd, Rymond.(2019). Management information systems. Translated by Mehdi Jamshidian, Akbar MehdipourAtaabadi. Isfahan: Isfahan University. Plan and budget organization of Isfahan province.