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Web-Based Guide for Newly Admitted Students in Caritas University, Amorji-Nike, Enugu

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Abstract

Web-Based Guide for Newly Admitted Students in the Caritas University Amorji Nike, Enugu is designed to support newly admitted students at Caritas University, providing comprehensive resources to facilitate a smooth transition to University life. The guide features a clickable map for easy navigation, PDF department guides for in-depth information on academic programs, and a PDF registration guide to streamline the process of obtaining a registration number. The system was implemented using Windows 10 platform and the following technologies were employed; MySQL for database; Python programming language; and HTML, CSS & JavaScript for the frontend.

Keywords: ***Python Programming, Students, School Transition, Technology, Web-Based Guide.***

1.1 Introduction

In the universities, most especially in Nigerian Universities, the transition from being an applicant to a newly admitted student can be an issue or overwhelming. Once newly admitted students are accepted into the university, the find it difficult complete the registration process, have knowledge about the school rules and regulation, and also to navigate or locate areas that the need to have knowledge.

This research paper is designed to solve some of these problems that newly admitted students undergo through providing an online handbook guide for students in terms of behaviour, a map that enables the student to navigate in the school premises and also providing a soft copy guide that students need to complete their admission process as well providing a department online handbook for students to gain information about their various course in the University.

Caritas University is an educational institution like others in the country, offers educational services to students, granting knowledge and thus equipping the students for the outside world. Based on the analysis we carried out using the data gathering or fact-finding techniques, we discovered that the University currently has no online or digital guide to disseminate information to newly admitted students. The new students openly inquire about the procedures of current students. Additionally, they request instructions from their various faculties, departmental offices and the administration offices, which could have been a simple process if there had been a digital guide like the web-based guide which we designed to provide the essential information and directions for the new students.

The proposed system will provide an efficient but simple student guide on the *Internet*. In the proposed system, students will be given access to guide system after authentication (that is after they have logged in to the student guide system). In this system the copies of the students' handbook guide will be provided on the system to give students information or knowledge about the school rules and regulationss in a faster way using the mobile devices at their disposal. The system contains a navigation system which is a map locator, this map locator will have the picture of each building that the student types in or request for in the search bar in the map, so as to enable the new student to access or locate the buildings or offices in Caritas University with ease without asking much questions. The system contains the guide for each department although most departments will not be available due to the time and cost of getting the guide book and converting it to softcopy.

Literature Review

2.1 Review of relevant concept

2.1.1 Review of the term "Guide"

"When you hear the word 'guide', you might immediately picture one of the numerous electronic device guidelines that are available everywhere, such as Tv guide or the microwave guide" claims Robert Moskowite of Matrix, the Magazine for leaders in education (Mathew,2023). In the case of some of professionals like the doctor, nurses, computer scientist etc. they see guide as a tool that assist them to get the results that the need in order to solve the problem. The term guide provides advice or instructions on how to carry out a task (Obin, 2023), thus it implies that a guide serves as a way of assisting an individual in carrying out a task. Tinto (2012) discusses how various institutional supports, including student guides, can improve student retention and success.

Student guides have become widely used in Nigerian colleges throughout time (Aina & Ayodele, 2018). Before, the only instructions students received from the institution were those that were published on the website of school, such as the start of faculty registration or the launch of the portal for paying school fees. These news updates were brief and did not provide students with clear directions on how to pay their tuition or what they needed to do to register. Because of this, students wasted time attempting to determine what paperwork to complete and even where to send it (Nkomo, Daniel, & Butson, 2021). But over time, colleges in Nigeria adopted the notion of producing a unique manual to help students with registration (Cliffe, 2017). However, not all Nigerian colleges have yet started using student guides (Shafiee *et al*., 2022). Software developments have made it easier to create through instructions from start (Schindler et al., 2017).

As a result, the majority of schools can provide a fully working student guide in less than three months (Schindler et al., 2017). Students guide is available at about 65% of colleges right now, according to Connecticut based Gastner group (Hohl et al., 2018), students guides will be available at about 80% of American of American universities with enrollments of more than 1,000 students. According to Matthew, P. (2023), chairman of Blackboard Inc., a Washington, D.C.-based provider of enterprise software to over 1,400 colleges and universities, "they will become as vital to the campus experience as the quad" (Matthew, 2023). According to Dirk Herr-Hoyman, project manager at the University of Wisconsin's Department of Information Technology in Madison, Wisconsin, "student guides are on everyone's mind right now, both inside the university and externally" (Herr-Hoyman, 2015). Every university will have a customized student guidance system in not too many years (Herr-Hoyman, 2015). In the context of the student's adjustment to the University, it is important because it helps to quickly adjust to the standards of the university.

2.1.2 Review of Web-based system

A web-based system is a system that is accessible through a web browser over a network such as the intranet or an intranet (Yang et al, 2005). Offut (2002) described web-based system as a software that is invoked with a web browser over a network. Conallen (1999) described a web-based system as a web system (web server, network, HTTP, browser) in which user input (navigation and data input) affects the state of the business. Dashpande et al. (2002) described web-based system as systems and applications that use web browsers as clients and provide services through the HTTP protocol.

Web based brings a lot of benefits or advantages to their users. Phankokkruad and Woraratpanya (2009) identified accessibility from anywhere with internet connection, reduced costs or software distribution and

updates, platform independence as some of the benefits or advantages of web-based system. Chou and Liu (2005) in their study also identified that flexibility in time and location for learning, Cost-effectiveness for institutions and ability to track user progress easily as a benefit of web-based system. Yang et al. (2007) further identified the following at reduced software maintenance costs, improved information sharing and collaboration and centralized data storage and management as an advantage of web-based system.

Web-based system is important due to its accessibility mode and what it brings to the society and also to the various fields existing in the society. Offutt (2002) emphasized that enabled new business models, improved customer service and engagement, transformed internal business operations as the importance of web-based systems in the field of revolutionizing business processes and customer interactions. Marugesan et al. (2001) emphasized that web-based systems are important in E-commerce, online transaction, distance education and e-learning, government services

2.2 Review of Some online guides in other Universities

2.2.1 St. George's University Online Student Guide

St. George's university online student guide is the guide that outlines the rules, regulations, and administrative polices of the university across the internet (St. George University of Granade, West Indies, 2023). According to Obin (2023) research on St. George's University online guide before the establishment of the guide, the university were looking for methods to enhance its services for students in terms of information delivery, registration, and other school transactions for the past few years. Based on Obin (2023) research the university had planned to gradually develop and improve its systems by moving from manual to partial to full automation. The college made Its initial move by offering some of its services online while keeping this ultimate goal in mind (Obin, 2023). At this point numerous web-based online students' manuals were conceived at this point.
This system basically includes the following

- MY PROFILE: This is the part of the system where students could access their profiles to view their contact and personal information.
- AFTER ACCEPTANCE: This is the part of the system that include a list of all the things the student would be required of after accepting the admission offer.
- AFTER DEPOSIT: This is the part of the system that contains all the things that are needed by the students to do after payment of tuition fees.
- CAMPUS MAP: This is part of the system that helps the student to navigate or in navigating the school.

The student guide system at St. George University was nearly perfect, but it still had some limitations like allowing the students to proceed to the next step in the registration process even if they hadn't finished the previous one, which could cause some problems in the future.

2.2.2 Macquarie University Online Course Handbook Guide

The Macquarie University online course handbook guide is the handbook guide that comprise of a comprehensive resource for students to understand their course structure, unit requirements and important academic (Macquarie University, Sydney, 2023). It was established in 2020 by Macquarie university.

This University online course handbook guide was built to assist students in obtaining faster information on the credentials needed by the students in relation to their courses, thus making it easier for them to understand the course the student is engaging in.

The Features of the system include:

- THE FACULTY SECTION: This is the section of the system where all the links of each faculty in the university is located.
- THE HANDBOOK SECTION: This is the section of the system that shows the 2020 handbook link, the view double grees link and all pace units' link.
- THE RULES, POLICES AND OTHER IMPORTANT INFORMATION SECTION: This is the section of the site that contains the university rules link, student policy link, the pre-2020 handbook link.

As great as it seems it some key features or had some limitations attached to it such as navigation complexity, technical issues, lack of personification, overwhelming details, limited instructions.

2.2.3 Other Institution's student Guide

2.2.3.1 The University of Ibadan, Nigeria

The University of Ibadan, one of the oldest universities in Nigeria, was the first to deploy student guides in the Nigerian university system; however, this did not happen until 2004 (Obin, 2023). The university of Ibadan students were only provided with standard pamphlets at the school's entrance for their use as student guides. These brochures outlined the requirements for students to register (Obin, 2020). This guide was an improvement to the existing system due to the fact that students could get access to the information faster than the existing system as of that time. Although this approach was an improvement over nothing, many blunders were frequently made by students as a result of the nature of the system. They provided only a cursory overview of the complete registration procedure (Obin, 2023). It didn't provide students with directions, the names of the offices they needed to submit their documents to, or instructions on how to arrange their paperwork. It also didn't offer bank information for the payment of school fees or other payments. The fact that they only knew what was in the leaflet about the registration process caused a lot of complications for the pupils. Students walked around looking for offices and buildings due to the size of the university because the particular location was not provided (Obin, 2023).

The pamphlet system was still in use as of 2015, and no changes had been made. Because changes to the registration process could not be reflected on the pamphlets until the institution printed a new batch of pamphlets, this approach was not flexible. This system was not only inefficient since it was sluggish and difficult for students to keep track of their accomplishments and failures, but it was also ineffective.

2.2.3.2 University of British Columbia's Online Student Guide

The University of British Columbia offers a comprehensive online student handbook system even though enrollment is entirely online and all paperwork is submitted and verified online (University of British Columbia, 2023). Like every other system, this one also provides instructions for pupils on how to register (University of British Columbia, 2023). This system instructs the users on how to upload documents in the right size and format (University of British Columbia, 2023). Although this system employs a checklist, a student cannot check a box if he hasn't finished the required steps (University of British Columbia, 2023). Since the registration process is completed online, this system is almost faultless; it has the capability to automatically verify that a specific step has been correctly completed before advancing the student to the next level (University of British Columbia, 2023). Because the University of British Columbia is an international institution, both foreign students and citizens from other countries can use its student manual in different ways (University of British Columbia, 2023).

Unfortunately, despite these benefits, most students still believe that this method is useless since they are unable to access the work that was done during the prior phase or the papers that were uploaded during that procedure (University of British Columbia, 2023).

3.1 Research Methodology

Research methodology can be seen as a systematic way of solving a problem. It is the science of studying how research is carried out. It is the study about how a researcher systematically designs a study to ensure valid and reliable results that address the research aims and objectives.

3.1.1 Object-Oriented Analysis and Design

The methodology which is used in the analysis and design of this study was Object-Oriented Analysis and Design Methodology (OOADM) as the steps involved the development of the proposed system using an existing system as a case study or a prototype that looks like the system that you want to design. It makes use of an evolutionary and iterative process that encompasses abstractions of the system attributes and behaviors using the necessary tools.

The object-oriented analysis and design methodology that is used, analyzes the present system as well as designs the proposed system with the primary aim of:

1. Identifying the problems of the present system
2. Investigating the causes of these problems
3. Proffering solutions to the manual system.

3.1.2. Use Case

Use case diagram is a Unified Modeling Language (UML) diagram that is used to represent how users will interact with the system. During the construction of the use-case diagram, the designer makes use of an actor, use cases and relationships. The actor represents the user, use cases are the actions the actor can perform, and relationship links the actor to the use cases. The following diagram depicts the use cases of the guide system.

Student/intern: when a user is logged in as a student, he is able to access the student's information form as well as the progress chart. The student can view the student handbook guide, department guide, navigation map, registration guide.

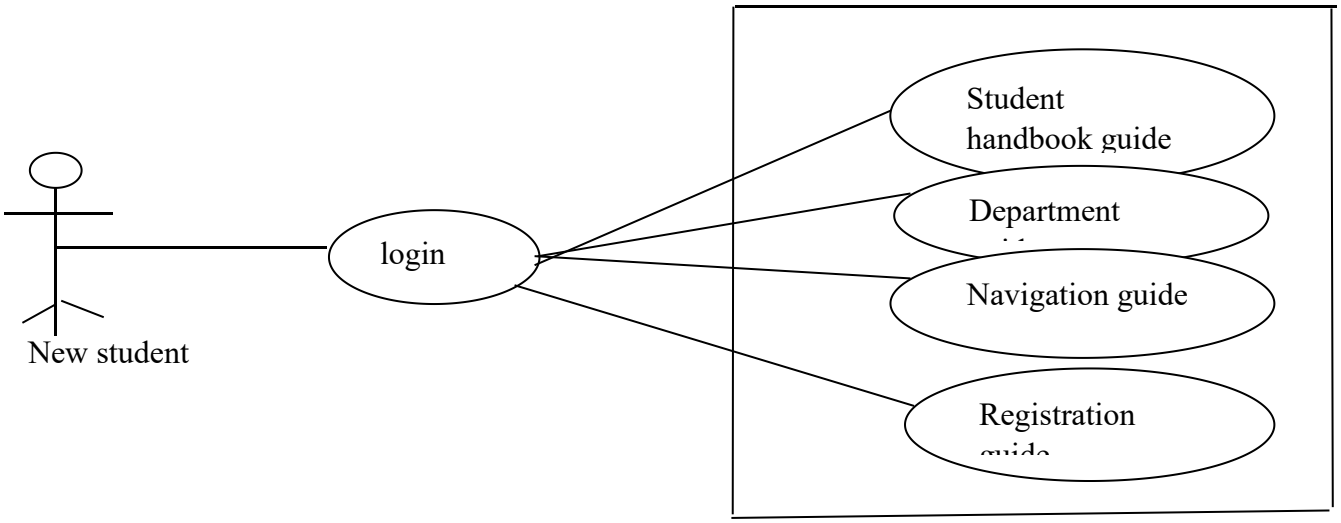

Fig 1: Use case Diagram for students

Conclusion

The Web-based Guide project for Caritas University newly admitted students is a valuable initiative, enhancing the overall student experience. By leveraging technology, it addresses common challenges faced by newcomers, fostering a smoother transition into University life. The comprehensive nature of the guide promotes inclusivity and reduces the learning curve for students. With the successful implementation of this student guide, we have been able to achieve the objective of the entire system that can be used when needed. This system helps to ease the stress that students go through during registration.

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