Result Processing System for Adamawa State University Mubi
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Abstract:
This study aimed toward presenting the implementation of a strong, reliable, efficient, and price effective system of Result Process System for tertiary establishment. A tool to mitigate against the inadequacies in wrong computations of students’ result, delay in processing and releasing of the said results. The system was engineered on internet the online the net platform exploitation five (5) major web programming languages. The frontend interface was designed using PHP, HTML, CSS3 and JavaScript, while the backend functionalities are powered by MySQL Database server side scripting language and which runs on a WAMP server. The data used for system testing were obtained from the Department of Computer Science, Adamawa State University Mubi. Nigeria. An empirical analysis of the system showed that the applying quickens the process of Students examination results, preserves and provides students quick access to their records as at once required.

Keyword: Design, System, Processing, Result, and Student.

1.0. INTRODUCTION
A result is an official college report on the record of student, listing courses, grades received. Students’ result’s a vital part of admission, transfer credit process, and graduation process. The majority of result acquired by the University is in paper form through multiple points of entry and is processed in multiple areas counting on the explanation the result is being requested or sought for (admissions evaluation, additional credit, pre-requisite requirements, special programs or graduation processing). [1]. Currently, till result details are entered and processed, there is no reliable way to track incoming result. This creates many problems for students and staff. Students could also be needed to send out their result if their initial submissions can’t be situated. Staff spends a considerable amount of time trying to locate result. Lost or misplaced result can delay admission decisions, prevent a student from registering into a course with pre-requisites and ultimately delay graduation, which can lead to unwanted consequences. [1]. Computation and preservation of students’ results and information in every semester is a fundamental issue for every educational institution [2]. These yield students’ academic records, called transcript. [3] defines a transcript of academic record as a certified statement detailing a student’s complete academic record at the University or other higher institutions of learning. The process of computation, and preservation of students examination results is tedious, time-consuming, and error prone, most especially when not automatically handled and or when large number of students are involved. The increase in students’ population over the years has made the work of examination officers and other officers in charge of processing students’ result a very exasperating exercise [4]. These processes are to be carried out every academic session; consequently it keeps the operators in an unremitting and ever challenging cycle. Except for the use of an accurate and effective system, results computation have tendency to convey misleading information to decision makers [5]. The record checking system in higher institutions is traditionally characterized by pasting students’ scores of a particular subject(s) on notice boards for the students to access; this has many drawbacks aside been stressful for both the students and lecturers, and all other stakeholders involved in the handling of students’ results. Many times, when semester results, notices and students’ records are displayed on the notice board, they are more often than not vandalized. Hence, there's ought to give higher and economical various means of process, preserving and displaying students’ results, and academic records that is reliable than the traditional method currently in used within the tertiary institution educational system. Automating result processing system provides a cost-effective means of processing, preserving and displaying students’ results, academic records and other relevant notices to students. As part of its Benefits, dynamic reverse address resolution protocol (DRARP) enables stress-free, speed-up the processing of students’ Examination results and eradicate channelization of students’ records that have characterized the traditional method [6]. This research focuses on designing a result processing system for result processing system for tertiary institutions that will increase throughput and reduce the response time involved in processing students result immediately after they graduate from the institution. The system will enable students register courses in their various departments.

2.0 CONCEPTUAL FRAMEWORK
Students’ result computation seems to be an old area of research which is Significant to every educational institution; continuous improvement on the existing systems provides better solution to the challenges of managing students’ academic records [7]. [8] Encapsulates the essence of a student information system, and thus, defines Student Management Information Systems (SMIS) as an integrated software package that maintains, supports, and provides inquiry, analysis, and communication tools that organize student answerability information into information to support the academic method. [9] claimed that his intention for the design and implementation of a University’s automated students Result Management System (RMS), was to put in place, a system with capability of storing current and historical data, organizing and analyzing these data as required and as well as integrating them with other Student Information Systems (SIS) packages if the need arises. In an attempt is automated the management of students’ academic records. [10], examined the
inadequacies involved in the Manual method of compiling and processing students’ results proposed a software application which facilitates automated processing of the results, though the study focused on public secondary schools in Nigeria. Several students result computation systems have been developed for use in tertiary institutions to tackle some of these problems [11], [6] designed an application interface system which incorporates a Microsoft Access 2003 database for processing students’ academic records. [12], proposes a simple interface for the maintenance of students’ information. Intelligent Knowledge-Based System & #40;I.KBS& #41; was built by [13] using various programming facilities and Microsoft Excel spreadsheet package. Critical evaluation of these systems confirmed that, most of them are not adequate to meet the need of the tertiary institutions’ challenges. Most of these systems process students’ results with high error rate and produce inconsistent outputs, thereby making data integrity questionable. In this research, the inadequacies involved in the existing method of processing and managing students’ academic records in tertiary institutions are examined. Specifically, in Nigeria, most tertiary establishments make use of ‘semi-automated’ software system packages that run on complete computer for managing students’ results and educational records. The limitations of these systems include but not limited slow response time, high error rate, and poor storage, crashing while processing results, Generating inconsistent outputs and lack of referential integrity. It is thus, sufficient to argue that the present systems of managing students’ educational records in some universities lack ‘integrity’. Over the years several efforts have been made to alleviate the burden of result processing and transcript generation on the desk officers who are in charge of the five faculties or in computer science Departments of various University at the Examinations and Records office. [9].

The effort gone within the method of registration of students and computation of their examination results is impressive. Quite worrisome is that the indisputable fact that these processes square measure administrated each session, putting the operators in a continuous and ever demanding cycle. The computation of examination results associated registration of students is clearly an object-centered activity, the student being the dominant object in this case. Hence, the necessity to evolve a computerized method which will effectively and expeditiously capture all the necessary information related to the registration and examination result processing among the University and the interactions among the objects. Students’ Examination Result is the summary of each of the semester or four years performance in a degree program for Bachelor degree to be terminable. A students’ Result is also demanded by a student who has finished Bachelor’s degree and wishes to transfer to another school or student who wishes to get a job. Transcript is not given directly to a student. It is sent to the college that the student desires to be transferred, or to the organization or establishment that requires the result. A students’ result’s ready or fashioned by the scores entered on the designed score sheet by the individual subject lecturers on semester examinations. [7].

3.0 . MATERIAL AND METHODS

The software development approach adopted for this research project is the waterfall model. This is because the outcome of one phase acts as the input for the next phase sequentially. For the data collections, the primary and secondary methods were used. For the primary methods, interview was conducted for the exam officer and various levels advisors and also records of results processing were also observed, while for the secondary methods, the current journals, lecture notes and relevant articles were consulted and reviewed. Furthermore, various tools were used to transfer or in processes into reality to accomplish design objectives. The front-end of the application was design using PHP, CSS, HTML, JavaScript. While the back-end was done using MySQL Database. Finally, the system was tested on a WAMP server.

3.1. Evaluation and Inspection of Documents

Close examination of some documents was administrated and it verified to be a very important technique within the course of the investigation. Through the scrutiny, some deductions and logical thinking, that are of huge profit to the current analysis, were drawn.

3.2. Analysis of Existing System:

Due to the manual means being used by the university, in keeping information about student’s examination processing, a lot of problems are encountered which includes

i. Students overtly or covertly register more credits units.
ii. Results hardly come out on time for students to know the courses to register for the next semester in case of any carry-over.
iii. There is no uniformity in the mode of course registration.
iv. Loss of vital documents as the filing system is manual.
v. Illegal removal of forms by fraudulent staff leading to insecurity.
vi. Takes a lot of time to retrieve a particular student’s results.
3.3. Analysis of the Proposed System
With the shortcomings within the existing system at the method of operation, a brand new system should be worked upon which can overcome all the inefficiencies that the current system has. In today’s sophisticated world all the on top of mentioned characteristics of the system is out-of-date and a necessity for a brand new, powerful, stable and result orientating software system is needed that is why a new system based on PHP, CSS, JavaScript and SQL is formulated. The proposed system is a web based system. Base on the proposed system is a database, which stores information sent by users of the system. The major factor taken into consideration in the design of the new system is the issue of student course registration, result viewing and uploads by student and lecturers.

![Figure.3.6. Entity Relationship Diagram](image)

3.4.1. Input Specification and Design
Input entails the various data supplied to the system, which are processed to give out an output. The input is supplied to the system using keyboard and mouse. The inputs to the system are: student data portal and staff portal.

3.5.1. Output Specification and Design
The output of the designed work is student result as a result of scores manipulation that is supplied by the lecturers

3.6. Hardware Requirements
A computer system that will be used for developing and testing the application, having the following specifications:

- i. Pentium IV Processor
- ii. 512 MB RAM
- iii. 40GB HDD
- iv. 1024 * 768 Resolution Color Monitor

3.7. Software Requirements
The following software requirements are:

- i. Web design text editor (Sublime text, Dreamweaver)
- ii. Web browser (Chrome, Microsoft internet explorer/Mozilla Firefox/Opera)
- iii. Apache
- iv. WAMP server 3.2.1

3.8. Use Case Diagram

![Figure.10. Use Case Diagram](image)
4.0. RESULTS

A functional result processing system was developed using PHP and MySQL as the Side-server and HTML and CSS as the client-side. The database used in the Database result processing System (RPS) was designed with MySQL Database result processing System. All the information pertaining to the RPS is stored in the system database. The admin will create an account for each student, before registration process. A sample output/results are shown in the various screen shots presented in this section. Figure 4.1 shows the student Registration and login page.

**Student Login Page**

This is student login form when attempting to log into their dashboard.

![Student Login Page](image)

**Figure.11. Student Login Page**
**Student Dashboard Page:** Shows student dashboard after Login is being succeeded by a student into the system

![Image of Student Dashboard Page](image-url)

**Course Registration Page:** This is student course registration Page for courses registration

![Image of Course Registration Page](image-url)

**Student Result Page:** This page is use by students to check their result

![Image of Student Result Page](image-url)

**Admin Dashboard:** This page is the administrator’s dashboard after Login into the system

![Image of Admin Dashboard](image-url)
Admin Student Registration Page: This page is used by administrators to add a new student into the system.

Figure 16. Admin Student Registration Page

Admin Course Management Page: This page enables the admin to manage (add, view or remove) courses.

Figure 17. Admin Course Management Page

Result Management Page: This page enables the administrator to enter students’ scores in every course.

Figure 18. Result Management Page

Faculty Management Page: This page enables the administrator to manage (add, view and delete) Faculty and departments in the system.

Figure 19. Faculty Management Page
5.0. CONCLUSIONS

In this research, development of students’ result processing system (RPS) is presented. The software is meant to address the challenges facing students’ records processing in the Universities. The RPS is developed using PHP, MySQL, HTML, CSS, and JavaScript and was hosted locally with Apache web server. Also used as the software development methodology. Water fall module, Functional decomposition of the system and its key modules are provided to explain the major functionalities proffered by the system. Also, use case diagram, flow chart module is presented to show the different categories of the system users and the various functionalities associated the different system user.

6.0. REFERENCE

[1]. Ajayatuma and Francis, (2015). Design and implementation of result processing system for tertiary institution in Nigeria intentional journal of computation and information technology, (06), 130-158


