

Web Based College Information Management System

Rasika Chandrasekaran*¹, Divya S², Akshatha Patil³, Anushree Patil⁴

^{1,2,3,4}School of Computing and Information Technology, REVA University, Bangalore, India

Corresponding Author: rasikachandrasekar21@gmail.com

DOI: <https://doi.org/10.26438/ijcse/v7si14.176180> | Available online at: www.ijcseonline.org

Abstract—Technological advancements are happening at the speed of thought, and technology plays a vital role in all fields, including education. College Information Management System (CIMS) provides an easy interface for maintenance of student data. It may be utilized by academic institutes and faculties to take care of the records of students easily. Technology is a huge contributor to the well being of human kind. Reports are an integral part of schools but generating it manually in a shorter span of time is very hectic and often prone to calculation errors. The creation and management of correct, up-to-date data concerning a student's academic career and faculty details is critically vital within the universities. This system deals with all kinds of student, faculty details and academic reports. It tracks all exam details, internal and external marks which is available through a secure online interface embedded in the college's website. It also facilitates the activities happening in the university.

Keywords— Student Information System, Database, Excel Sheets, HTML, JSP

I. INTRODUCTION

The implementation and design of a compendious student information system and user interface is to substitute the current paper work. College faculties are able to access all aspects of a student's academic records through a safe, online interface embedded within the college's website. The system uses client verification, thus showing specific information needed for an individual's duties. Each sub-system has validation; enabling approved clients to update or create information in that sub-system. All the records are completely seen and approved on the server before the actual record changes occurs. In addition to a staff user interface, the system plans for an administrator interface and student interface, letting them to access information and submit requests online subsequently hence reducing the overall process time. The data is stored in excel sheets as the database software occupies certain amount of memory space in the system.

Thus to build up a model to demonstrate the working of this system with less memory usage we chose excel sheets to store our data.

Previously, colleges depended intensely on paper records for this activity. While paper records are a conventional method of managing academics related data there are several drawbacks to this method. To start with, to pass on any announcements or information related to exams and events,

it has to be displayed on the notice boards and the students have to visit the notice board to check and get to know regarding the events etc. It takes a very long time to pass on the information to the students. Paper records are difficult to manage and track. The physical effort required to retrieve, alter, and re-document the paper records are all non-value added activities. This system provides a simple interface for the maintenance of student/faculty information.

It can be used by Educational institutes such as colleges, universities etc., to maintain the records of students and staffs easily.

Achieving this objective is difficult using a manual system, as the information is scattered, it can be redundant and collecting relevant information can be very tedious. Through this model we try to eliminate these problems. This paper focuses on presenting information in an intelligible and easy manner which provides facilities like marks update of students, online mentor sheets, examination schedule details, thus reducing paperwork and automating the record-generation process in an educational institution.

A. Purpose: The aim is to design a web based model which contains updated information about the students, faculties, exam schedules etc. This provision is not available in the present ERP (Enterprise Resource Planning) system of REVA University. These modifications will improve efficiency of the college record management.

B. Objectives:

- Providing an online interface for the admin, the teaching staff and the students.
- To increase the potency of college information management.
- Decrease the time required to access and deliver student records.
- To develop a norm to convey our idea to the college management.
- Decrease the time spent on non-value added tasks.

C. Organization of the Paper: The paper is organized as follows: Section II renders literature review. Section III provides the system design. Section IV explains the technologies used. Section V details of the testing results and Section VI, the conclusion.

II. LITERATURE REVIEW

Most of the academic institutions in growing nations are following the conventional technique of handling information device with standby PC machines and keep statistics in different departmental device due to lack of infrastructure. On these structures, the software program implemented does not position the procedures together and cannot interact with each other. This task is aimed towards building an Online Information Management System which is of significance to an academic institution. The important cause of the mission is to provide entire automation to the users.

This can even combine all the commercial enterprise functions like maintaining the test marks, student and faculty details and so on in a single device. It permits the opportunity of a handy, clean and safe way to maintain the required records.

I. SYSTEM DESIGN

This deals with data flow diagram, detailed flow graph, requirement analysis of the student information management system.

A. Data Flow Diagram:

A Data Flow Diagram (DFD) is a graphical delineation of the progression of Student Information System. This outline can likewise be utilized for the perception of Data Processing and furthermore speaks to the progression of information through the framework. Information stream outlines are usually utilized amid issue investigation. It sees a framework as capacity that changes the given contribution to required yield. Development of information through the different changes or procedures in the framework are appeared in Data Flow Diagram of Fig. 1

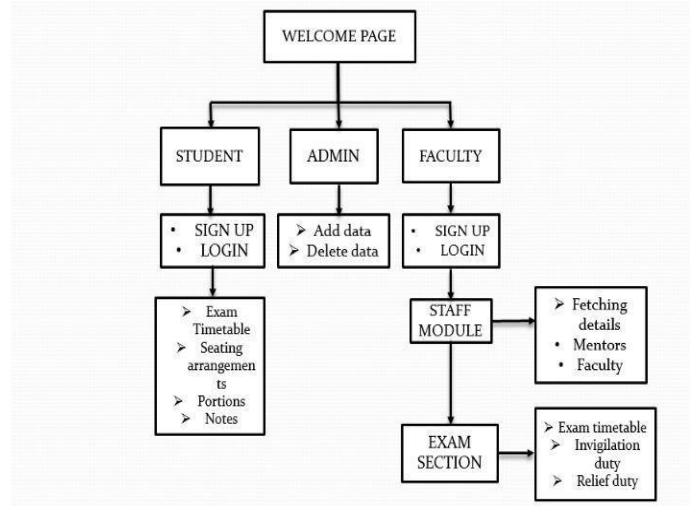


Fig. 1 Data Flow Diagram

This paper mostly centers around dealing with the data of the students, faculty data, related data of the school which is kept up by the school organization through different dimensions of controlling. The utility of the individual modules are explained in detail in the flow graph.

B. Detailed Flow Graph:

The detailed flow graph is shown in Fig. 2. The design of the student information management system includes the design of the homepage which provides the way for users to access the system. The home page solely contains a login form through which another user can register, or an existing user can login to the system by typing the required user details. Every user of the CIMS has a unique username and password with which the user can login.

Staff: The staff can refresh the information with respect to the pupil's internal marks and some other data in regards to the subjects they handle in school. They can likewise investigate the details for better acknowledgment of the pupil's execution and improving the productivity of every individual. The staffs additionally get the reports with respect to any occasions happening in the school. The detailed flow graph of staff module is shown in Fig.2.

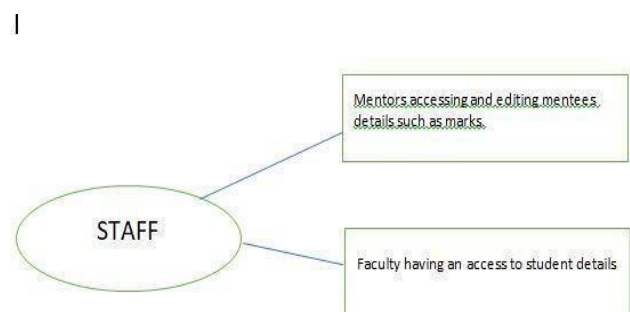


Fig.2 Flow Graph of staff module

Exam Section: This is in charge of updating internal and external examination time table. And also responsible for updating the supervision list for the faculty and class room allocation for the students during the examination. And they aim at the cross checking and approval of the internal marks updated by the staff.

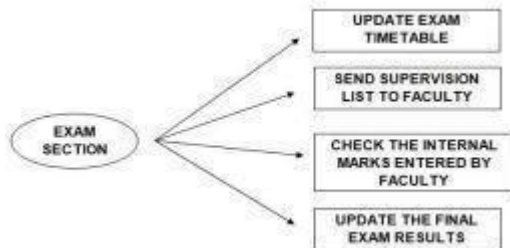


Fig.3 Flow Graph of Exam section

Administrator: He is in charge of entering the details of new understudy. Dealing with the understudy accounts if any progressions in regards to their own details. The admin deals with the faculty accounts like entering another staff, refreshing their details or expelling specific personnel from the database. He likewise will check for every one of the updates for example understudy, workforce and test updates. The admin has the highest level of power in the college information management system.

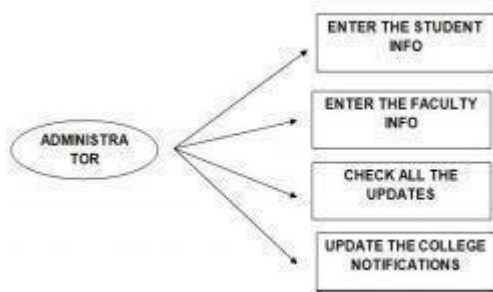


Fig.4 Flow Graph of admin module

Student Module: Here, the student can log in and can have access to the links such as the Exam Time Table, Seating Arrangement and also can view the details of his/her mentor. The detailed flow graph of staff module is shown in Fig.4.

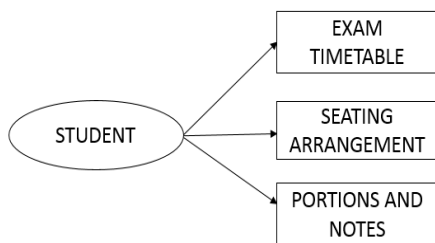


Fig.5 Flow Graph of student module

C. Requirement Analysis:

The basic requirements for the design of the CIMS are:

- Every user should have their own identity like SRN, USNetc.
- User can update his/her personal information and can view the notice, results and exam section updates etc.
- Faculty, administrator, exam sections can update any of the information

II. TECHNOLOGIES USED

The technologies used in this (CIMS) are:

- HTML
- CSS
- Java Script
- JSP
- EclipsePlatform

I. V. RESULTS

Sign Up Page:

The framework starts with the record page where just the allowed client can join as a form of verification by entering their unique id number and setting up their very own secret phrase as password.

IV contain the architecture and essential steps of , section V explain the methodology with flow chart, Section VI describes results and discussion , Section VII contain the recommendation of and Section VIII concludes research work with future directions).

III. RELATED WORK

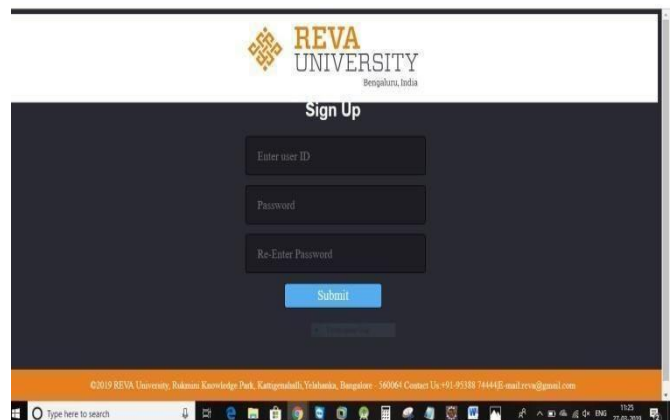


Fig. 6 Sign Up Page

Login Form:

The login portal is where the verified user logs in to perform different tasks and if not, the user is asked to register first.

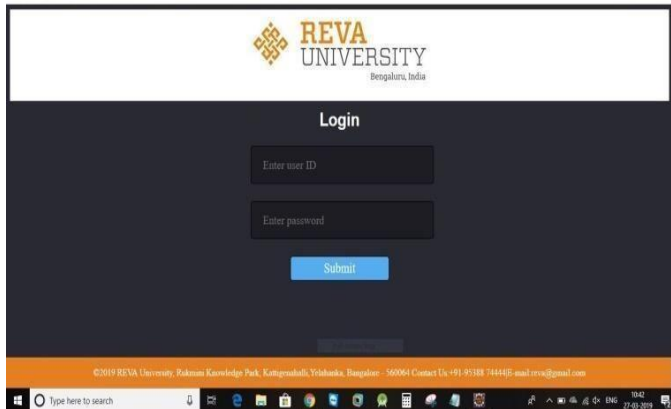


Fig. 7 Login Form

A. Staff Page:



Fig.8 Staff Page

In this page the mentee list of the respective faculty is displayed. They can click on it for marks entry, personal detailscheckctc.



Fig. 9 Marks Sheet

Admin Page:

The admin page allows the authenticated user to add, update as well as delete the student and teacher's information whenever necessary.

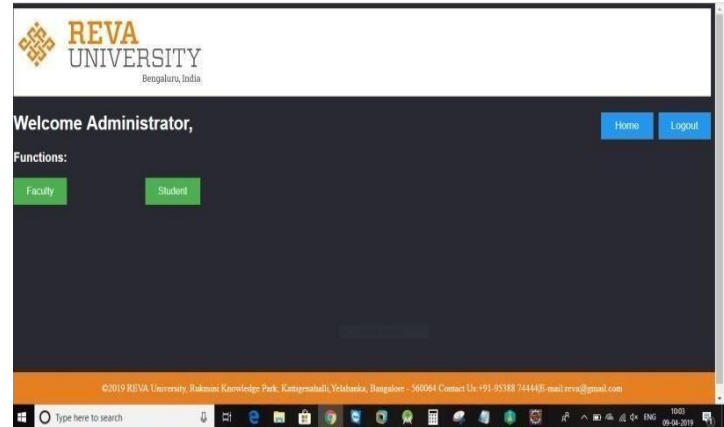


Fig. 10 Admin Page

B. Uniqueness of the system:

The current existing system has a few missing modules which compels the user to login to another portal or even wait for the circulars to be put up on the notice boards. All academic related information such as exam syllabus, notes, exam time table and the seating arrangement of the respective student can be viewed by logging in once.

C. The teaching staff can have access to the required details regarding their exam duties by logging into this system as well. CIMS is based on improving the efficiency of the present working system. Thus it could be used by the college management in order to strengthen the existing system.

VI. CONCLUSION

By utilizing this framework, the administrator can undoubtedly keep up the records of numerous understudies and resources without much desk work. He/ She can include, update and erase data in few ticks. This framework can be observed and controlled remotely. It decreases the labor prerequisite. The data accumulated can be spared and made dependent on circumstances. The information which is in the vault helps in taking canny choices by the administration giving point by point and precise outcomes. The inter-connectivity between the modules decreases an opportunity to perform diverse operational assignments. In this manner it facilitates the activity of the administrator and furthermore dodges the abuse of information. The thought of this framework is to propose the above modules to our college executives to improve the current frameworks.

REFERENCES

- [1] Zhibing Liu, Huixia Wang, Hui Zan “Design and implementation of student information management system.” 2010 International symposium on intelligence information processing and trusted computing. 978-0-7695-4196-9/10IEEE.R.
- [2] S.R.Bharamagoudar¹, Geeta R.B.², S.G.Totad “Web Based Student Information Management System” International Journal of Advanced Research in Computer and Communication Engineering Vol. 2, Issue 6, June 2013.
- [3] Jin Mei-shan¹ Qiu Chang-li² Li Jing³. “The Designment of student information management system based on B/S architecture”. 978-1-4577-1415-3/12 2012 IEEE.
- [4] TANG Yu-fang, ZHANG Yong-sheng, “Design and implementation of college student information management system based on the web services”. Natural Science Foundation of Shandong Province(Y2008G22), 2009IEEE