Departmental Information Management System

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Abstract

Departmental Information Management System (DIMS) mainly focuses on a simple interface for storing and analyzing information of students considering various aspects including academic, achievements, sincerity and other parameters. The data can be retrieved in statistical form which aids in performance and progress of the department in the institution. It can be used by educational institutions to manage the records easily. The management of accurate and up-to-date information regarding students’ academic career is critically important in the colleges. Departmental Information Management system deals with all kinds of student and staff details, academic related reports, college information, placement details and other resource related details too. Departmental information Management system have capabilities for registering students in courses, results of student tests and other assessment scores, building student Resume, tracking student attendance, Statistical analysis of marks obtained by students, Automated Messaging System for providing necessary information and managing many other student-related data needs in an institution. It will have information about faculty, batch execution details, and various academic notifications by the administrator.

Keywords: Tracking of Attendance, Performance Analysis, Document Updation, Resume Generator, Notices Updation

I. Introduction

In the earlier days when the university was founded, management departments and courses were established. The issues projected are that pupil’s particulars are reported manually in distinct records, which requires multiple resources and manpower to accomplish the task. Managing and updating these records manually increases the probability of errors. In order to solve these problems, a new system has been created, that attempts to operate the whole process considering the database integration approach.

All Management departments provide various records regarding students in aspects of attendance, progress, interests, achievements and many more. It becomes easier for faculty and other staff to keep the Department Records related to all the candidates and Alumni Entities without manual paperwork. Retrieval of Information with respect to any single or multiple Record name of the student or particular Class helps in aiding the Management. Report Generations and Statistical Analysis of the Results of particular student, class helps in drawing easier conclusions over the status or progress of the candidate.

It is a System that allows users to approach the entire information regarding the college, students, faculties here we would gain the recent knowledge regarding the students and Staff. It is a general application planned for aiding the students and Staff of an organization regarding access of the various details of students. It also allows the faculty to know any detail about particular student. The details can be personal, academic, attendance records. The administrator would maintain the accounts of the pupil and staff. The system also provides a new functionality of resume generation at the end of course duration of the pupil. The resume generation will be done on the basis of the students details in the management system. The system will also provide enhanced services of automated SMS to the students regarding attendance criteria at the end of every month which will help the student to keep track of his attendance. The systems database access privileges will be dependent on the type of user (Administrator/Faculty/student). Students can access all their details and can also download the copies of their original documents submitted during admission process. Proposed System aids in many aspects for the benefit of the institution.

II. Literature Survey

Management points to the structure and process of implementing decisions, governance to the process of making decisions and leadership to the structures and processes through which decisions are influenced. In as far as management is about implementing decisions; management has existed since the beginning of higher education institutions. An attempt to define what
management entails with greater accuracy and systemization in higher education has been an important phenomenon since the beginning of the 20th century. The literature in this area focuses on programme planning which entails management control over the expansion of the curriculum through, for example Managing, Analyzing and Information systems. The System development entails on the process of updating and improving academic programmes evaluation and considers the review or assessment of students, programmes and institutions with the focus upon Outcomes. We learnt from the 'College ERP System' paper published by Sagar Pawar and chetan Barhate about the distinct modules aiding in Management of the Institution. It mainly focused on major modules management like Finance, Transport etc. The paper 'Web Based Student Information Management System' published by S.R.Bharamagoudar, Geeta R.B., S. G. Totad was comprehensive about various modules primly focused on Student entity. Our System deals with Integration of specific modules from the Institution which aids in analyzing the outcomes or Performance of a Particular Department in various aspects like Academic, Extra-curricular, Sports etc. It mainly focuses on the Performance of a student in the Institution. It also helps in simplification of Performance statistics, Report Generations which are prime activities in Management of an Institution.

III. EXISTING SYSTEM

The existing system is having all the information maintained manually which is a tedious job. It will require more time to retrieve the information. For example, if staff wants to find the record of passed out student, then faculty have to search through all the files which requires more time for the process. Existing system is not accurate so data can be lost while retrieving any information. As current system will require more time for retrieving the information, progress report cannot be maintained easily. Existing system will have non-centralized data. Hence all the information is not available in a single system. Hence, it requires more manpower to complete the process. So to overcome this loophole in the existing system we have proposed a new system to help us solve the issues.

IV. SYSTEM ARCHITECTURE OF PROPOSED SYSTEM

The key Purpose of our system is management of particular Department in an Educational Institution by Integrating distinct aspects like Performance Analysis, Attendance Management and other Administrative work including Reporting Services (Automated SMS and E-mails), Security for Personal Documents Storage. The System has three distinct authentications for the different levels of users which are:

A. Administrator

The Administrator is Responsible for the overall Handling of Functions in the System. The Administrator has all the Data Access privileges that are Personal, Academic, and other data of the Student. The Reporting Services for Attendance or any other Activity of a Student are fulfilled by the Administrator.

B. Data Feeder

Data Feeder is only responsible for Entering of Information that requires daily updating. Data Feeder has Access to only limited information in order to avoid any security flaws in the System. The data is to be entered under the inspection of the Administrator.
C. Faculty

Faculty has Access to view every student, class Information which may include the Performance in Statistical form or the Attendance. Faculty can also retrieve Data of the Students from a particular class on providing certain parameters for Placement Management. Faculty can view the Eligibility of a particular Student for Examination based on Clearance of Dues. The due may include Tuition Fees, Penalty Fees for any other Activity.

D. Student

Student is the principal entity of the system which is mainly focused on the Performance Improvement by analyzing Information of Students. Student has Access to edit only its own Profile Information. Students are provided with an Automated Resume at the end of the Course based on the Academic, Personal and other Information provided to the System. Also, Performance Analysis of any student at the end of the Course can be aiding in providing any reference letters to other Institution.

V. PROPOSED SYSTEM

The System is mainly designed for handling and tracking performance and progress of every student which ultimately aids in management activities of the entire Department. Also the Clearance Dues or Penalty dues of any candidate can be traced by the Faculty for assuring its eligibility to appear for examination. The system also helps in Generation of progress reports for the Department periodically. The Reporting Services of System generated SMS are handled using third-party SMS service which will be triggered in case of any alerts to be reported to guardians or candidates. Automated Resume Generation at the end of the course is carried out on the basis of distinct types of information provided by the candidate throughout the course. The System also provides a facility for Storing original documents in pdf format for Students which aids during specific times which might include participation in a competition or Placement activities.

VI. CONCLUSION

The web application reduces the tedious manual work of maintaining records of Students and Staff by computerized Automation Management System. This gathered information can be maintained and accessed by any point of time. Student wise, Class wise and Department wise analysis is done to test the performance. Notices are reflected on student’s page to view the updated notices by the staff. It is an integrated system which focuses on statistical analysis, Report Generations for the management of Department.
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REFERENCES