ERP for College Management System

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AbstractThe objective of this paper was to propose a design of ERP for college management system which provides a simple interface for maintenance of different student, department, faculties, library and other information. It can manage daily activities of college which include the management of Employees, Students, Books and Library Records, Parents details, Assignments, Admission Process, Results and Reports, Exams, Events, Attendance, Timetable, Fees and Other Report. It uses C4.5 algorithm to analyse student based on their performance and placement prediction of student.

Key words – Placement prediction, Result analysis, Student analysis, Time table.

1. INTRODUCTION

ERP stands for Enterprise Resource Planning.

Enterprise resource planning (ERP) is business management software or a system which is typically used to manage core departmental data of respective business. ERP provides an integrated view of business processes, often in real-time, using common databases maintained by database management systems. ERP system track business resources— raw materials, cash, production capacity and the status of business commitments like: payroll, purchase orders, and orders.

In the current system details are entered manually and maintenance of records is a tedious task. There is a chance for more manual errors and loss of data. The current system requires lots of manual work, difficult to generate reports, redundancy of data.

The ERP system for college management is to override the problems prevailing in the current system. This reduces paper work, manual work, maintenance of data and records made easy. This system has some features like prediction of student placements based on their scores and also analysis of students' performance. Accessing results from university database.

The ERP system is error free, secure, reliable and fast management system. The organization can maintain digital records without redundant entries. The valuable data/information can be stored for a longer period with easy accessing and manipulation of the same.

2. LITERATURE REVIEW

Half of the educational institutions in developing countries following the traditional method of managing information system with standalone computer machines and store data in different departmental system due to lack of infrastructure. On these systems, the software implemented do not integrate processes and cannot interact to each other .In these kinds of system implementation no concept of service architecture being used.

This system is aimed at developing an Online Intranet College Management System (CMS) that is of importance to either an

educational institution or a college.ERP application will integrate all the business functions like Recording attendance, Student information etc in a single system and database. ERP promising the possibility of convenient, easy and safe way to handle business functions of college.

3. PROBLEM STATEMENT

In Existing System for managing various modules such as Student module, Administrative module and Exam cell etc. takes lot of paper work as well as time.

In Student module at present there are various things which includes paper work such as admission form, Notice Board, Revaluation form, Exam time table, Feedback etc. In Administrative module Exam Form, Concession Form, Accounts and updation details, Profile views, Fees details, ID card generation all are very difficult to manage using manual processes and it takes lot of time and paper work.

4. PROPOSED SYSTEM

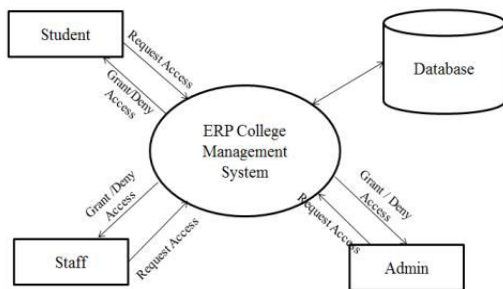The block diagram for the proposed system of ERP for college management is show below:

Figure 4a: ERP System for College Management

The proposed system reduces paper work, manual work. It also helps in maintenance of data and records made easy. It helps in the analysis of placement of a student; it can also access the result database of the university for complete comparative result analysis. Uploading academic project reports for references to student.Student performance analysis for placement prediction.Thus it will reduce the time and preserves the workload and

each student can able to see their report by just login profile.

As this uses database it can store large number of data. Maintaining of data in database is easy and retrieving it also is very easy. Data can also be updated like addition of fields or deletion of field etc. reports of required format can be generated. All these reduce manual work and errors.

In this each student's results can be accessed from university result database. From this student performance can be analysed. The probability of student getting placed in a company can also be predicted. This is done by using C4.5 algorithm.

5. SYSTEM DESIGN

The objective of the system design is to deliver the requirements as specified in the feasibility report. System design involves first logical design (logical design) and then physical construction (detailed design) of the system. The logical design describes the structure and characteristics of features, such as the outputs, inputs, files, databases, and procedures. The physical construction produces actual program software, files, and a working system.

The project has been split up into the following modules for easy and effective implementation.
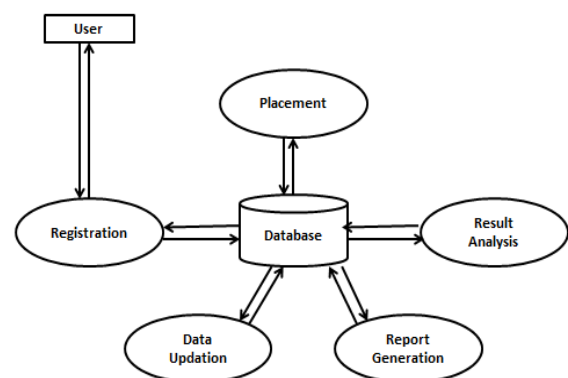

Figure 5a: ERP System Overview

Registration Module

Registration happens when a candidate first uses the system. Registration means the system will take the details of the candidate as required by the

application. The obtained details are then stored in the database.

The registration is for the students and faculties. The students will register by providing the information such as *Name, Parents' name with occupation, address, academic details (10th, PUC), CET ranking, admission quota etc.*

Faculties will register by providing information such as *Name, Address, Email, Contact number, Educational qualification, past work experience etc.*

Data updation

This is to allow the department to update student records (updating IA marks, attendance, student information-address, contact number, email ID, university results, skill test marks, achievements, & to update faculty information.

Results Analysis

The function of this module is to get results of students on USN online, store results in database and later do analysis on results (pass percentage, failure percentage, FCDs, FCs, SCs,) and comparison with previous year/department results.

Figure 5b: Result Analysis

Report Generation

This is to generate reports (in Word/PDF/Excel) format – IA reports, Attendance report, Student BIODATA, Department performance reports etc.)

Student Performance Analysis & Placement Prediction

The main function of the module is to predict the probability of placements for an individual students

or a batch based on history and academic performance of previous batches.

6. RESULTS

These are screenshots of the proposed system —

7. CONCLUSION

The fundamental problem in maintaining and managing the work by the administrator is hence overcome. Prior to this it was a bit cumbersome for maintaining the time table and also keeping track of the daily schedule. But by developing this web-based application the administrator can enjoy the task, doing it ease and also by saving the valuable time. The amount of time consumption is reduced and also the manual calculations are omitted, the reports can be obtained regularly and also whenever on demand by the user. The effective utilization of the work, by proper sharing it and by providing the accurate results. The storage facility will ease the job of the operator. Thus the system developed will be helpful to the administrator by easing his/her task.

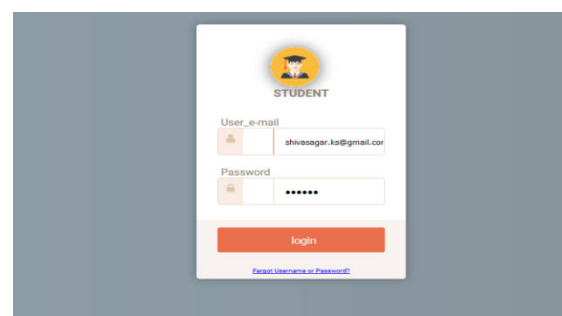## 8. OUTPUT

Figure 8a: Home page
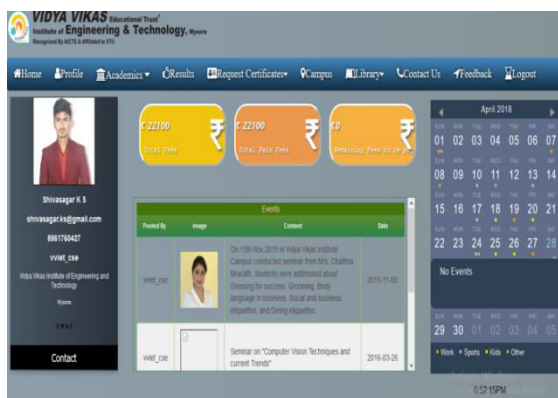

Figure 8b: Student login page
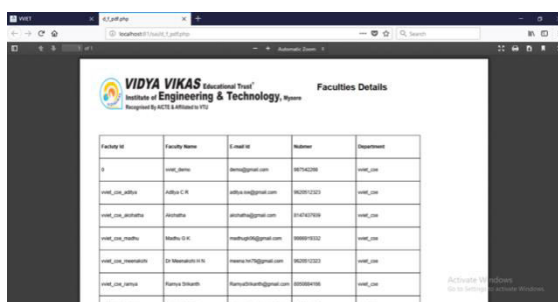
Figure 8c: Student home page

Figure 8c: Report generation(pdf)

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