

edge. Studies also reveal that organizations that don't have an ERP implemented are facing numerous problems in their internal processing like attendance management, payroll management, quick decision making, etc. So in order to be different and ready for action the institutes need a central resource planning that can manage the entire information and operations of the institutions. This paper deals with the implementation of Educational ERP, the technology used and why every higher educational institute should opt for an ERP. Higher education environments are extremely dynamic, where the education system has been fundamentally changed. Higher education institutions should leave behind the question of Information support for business processes and should focus on informatics as one of the key factors of quality assurance in higher education. ERP provides a unified enterprise view of the business that encompasses all functions and departments as well as an enterprise database where all business transactions are processed, monitored, and reported. But implementing an ERP system requires careful exercise in strategic thinking, precision planning

1.1 OBJECTIVES

The objectives of an ERP is to allocate the all resources to the particular institutes and companies by providing all department modules within a single application. It is easy to interact the students with faculty and the institute managements. The ERP system will modernize the education system and business processes. Automate Educational and business Solutions. Increase Operating Efficiency. Provide Access to Standardized College Data. This will empower staff and students to access information and provide services through an intuitive and integrated

interface, and ultimately aims to the improving the quality of the education system.

1.2 PROBLEM STATEMENT

The present system has certain major disadvantages. A few to be listed can be excessive paperwork, time consuming process flow, laborious work environment for employees, difficulty to access historical data and all these problems lead to inefficient working of faculty and management causing dissatisfaction in the general public.

Maintaining the records of the business and the institutes are the heavy task to the management. An institute has a many departments, students and faculty, Maintaining these all at a time is burden to the management of the particular institutes. It is a huge struggle to accessing information of the each person in an institute in the manual mode.

For giving any notice to the students we are using a manual notice Boards or Using the third party apps like whatsapp and messenger. When it comes to the usage of manual notice. Every person has to be their in the college. Absentees will not get to know about the notice issued by the Faculty and the management

When paying the college fees, Everyone has to come to college or location of fee payment and standing in a queue. It is the waste of everyone's time. It is also a burden for the administration officers to collect the fees from each and every student.

In libraries, librarians are facing an issues to maintain the records of books and the students. They have to maintain a records of books and the students who took the books froms the library. They are maintain a manual registers to maintain a

records. These manual data of the books and the students may be lost in any accidents.

Apart from the above stated problems there is lack of transparency in the existing system. This being one of the major drawbacks in the system needs special attention. The problems stated above have certain deep rooted problems like time-consuming process flow for which may need to change the structure of the process flow in certain cases so that the system output can become faster.

II. SYSTEM ANALYSIS

2.1 EXISTING SYSTEM

The current ERP System deals with maintaining a physical contact with the academy management dept. for filling all the details and the documentation work. The management doesn't need to visit the academy management dept. and collect the assignment and submitting his/her documents directly.

According to the current system, the management has to fill in the forms manually, go to the account management dept., and submit him the form. The applicant needs to visit the academy portal now and then in order to get his work accomplished. The admin also has to manage all the users. He needs to maintain records of all the users, their activity status, submission methods and installation details on paper. The Manual process is more error prone and also slow. Moreover Students in the academy can interface his/her work area only. But if an online application is available then they can communicate whole system. Thus a simulation of this entire process can be a boon to the applicants as well as the admin.

All the colleges usually have a number of departments and educational modules such as courses information, notices, etc. Managing all these departments and other modules manually is a very difficult to maintain.

- Here are the some drawback of the existing system
- Student's must be present in the college to get the any information.
- lots of ways can data lost.
- It consumes more time.
- Data is located in single place.
- Files can be jumbled
- Data can't be over written easily
- It is very risky and time taking process

2.2 LIMITATIONS

1. Inaccessibility:

Administering paper-based evaluations in-class may exclude certain students from participating. Students who are absent from class, or who have impairments, may not be able to access or complete the evaluation. The inability to accommodate all students in the process can lead to incomplete, skewed feedback with a very narrow view-point.

2. Lower quality data:

Many factors can affect the quality of data retrieved through in-class paper evaluations. Students may feel that their responses are not anonymous and worry that instructors can trace the feedback to them. They may feel their anonymity is compromised due to their writing or by the comments they divulge. This causes students to be less open and honest on their assessments. Other issues such as peer pressure and in-class evaluation time limits can also negatively affect the quality of the data collected.

3. Limited flexibility:

Using traditional paper-based assessments often does not allow for the customization of questions. The questions used may be standard, university set queries without instructors being able to add tailored course-specific questions. Using a paper-based process also doesn't afford much flexibility in terms of the reports that can be generated for instructors and faculty. Standard reports are often used without the ability to present results differently, whether showing results over time or across multiple courses.

4. Lengthy process:

The process of administering paper-based assessments is a lengthy one. It can take several months to complete the cycle from administering the forms to collecting and analysing the results, to sharing reports and acting on the feedback obtained. As instructors do not receive results quickly, valuable time is lost in responding to student concerns and implementing possible course changes.

5. High cost:

A major disadvantage of using paper assessments is the high cost associated with the process. The number of personnel involved as well as the printing, distributing, scanning, rekeying, filing and archiving is very costly. When institutions move to an online system these significant costs can often be reduced by at least 50 percent.

2.3 PROPOSED SYSTEM

ERP is described as a single complete system which aims at integrating all the business processes and the sub processes in a single system.

This system is integrated in an organization or an institute so that all the business and educational goals are managed and organized effectively and efficiently. It also helps to adapt the daily changes and business practices while maintaining a stable business growth.

It helps the education system in growing the education sector and also responds to the new opportunities. The handling too becomes powerful and easy. It becomes fast to manage the institutes process and flexible for the supporting scalability. As the Organization starts growing the challenges start increasing. ERP will help in handling all such challenges and this system help in expanding the business. It will help in being flexible and even in the difficult upgrades.

ERP means the techniques and concepts for integrated management of business as a whole, from the viewpoint of effective use of management resources to improve the efficiency of enterprise management. A fully integrated web-based ERP will capture and create accurate, consistent and timely relevant data, and assist in intelligent business decision-making. The primary purpose of ERP is to provide mechanisms for automated processing and management of the entire institution. It reduces data error, ensures that information is managed efficiently and is always up-to-date. Complete student histories for all years, can easily be searched, viewed and reported on press of button.

It is made after extensive study of all the departments like student, faculty, etc of colleges and is provided with the extract of everything a college requires for their database handling, department management and student/staff management. The security issue within ERP has been there for a long time, but most of the solutions

are based on the assumption that an ERP system is a closed environment. Higher education institutions are persisting in this era by adopting and implementing ERP system. The need to evaluate their benefits and impacts on organizations and individuals are increasingly essential.

Purpose

The project is about to handle all the information of the student regarding course and examination. Also it manages resources which were managed and handled by manpower previously. The main purpose of the project is to integrate distinct sections of the organization into consistent manner so that complex functions can be handled smoothly by any technical or non-technical persons.

The project aims at the following matters:

- To manage information of student, faculty and courses.
- Consistently update information of all the students.
- Reports.
- Assistance in decision-making.

Scope

- Different people, place from different departments can view the same information about Student Information.
- To enable the head and technical supporting group to access the system from anywhere.
- To enable the Student to view as well as raise suggestion from anywhere.
- To enable the student evolution with giving online exam and get the result on the spot.

2.4 ADVANTAGES

Organizations from a variety of industries benefit from Enterprise Resource Planning (ERP) software, but, there are certain types of businesses that see more benefits of ERP. Increase Operating Efficiency. Provide Access to Standardized College Data. While many factors indicate the need for implementing an ERP system, educational institutes and organisations stand to gain the most from making the move.

Here, we will talk to some key trends that suggest when it's time for a business to implement or upgrade their ERP system, which include:

Times of Growth

- The organization is growing, has grown or is planning to grow significantly

Issues with Operations

- The organization needs enterprise software to better manage processes

Mergers or Acquisitions

- For example, the parent organization needs to streamline systems across companies

Old Legacy Systems

- The organization's current system is outdated and not available for upgrades, or no longer serves the business and users adequately

Strategic Roadmapping

- Organizations with forward-thinking executives have outlined a business technology roadmap that includes a new enterprise solution

2.5 FEATURES

Enhanced Business Reporting:

- Better reporting tools with real-time information .
- A single source of truth – one integrated database for all business processes

Better customer service:

- Better access to customer information.
- Faster response times
- Improved on-time delivery
- Improved order accuracy

Improved Inventory Costs:

- Only carry as much inventory as needed, avoid these common issues
- Too much inventory, and higher overhead costs
- Too little inventory, and longer customer fulfillment times

Boosted Cash Flow:

- Better invoicing and better collections tools to bring cash in faster
- Faster cash means more cash on-hand for the business

Cost Savings:

- Improved inventory planning
- Better procurement management
- Better customer service
- Improved vendor relationship management

Better Data & Cloud Security:

- Dedicated security resources
- Avoid installing malicious software
- Data distributed across multiple servers

Business Process Improvements:

- Automate manual or routine tasks
- Implement smarter workflows
- Gain efficiency

Supply Chain Management:

- Effective demand forecasting and lean inventory

- Reduce production bottlenecks
- Transparency through the business

III.SYSTEM ARCHITECTURE

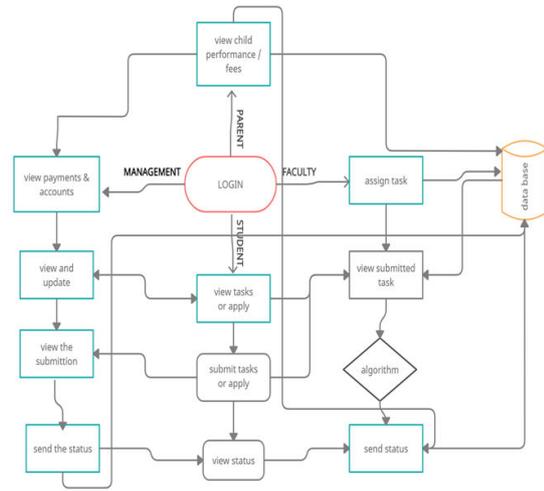


Fig 1- System architecture

3.1 MODULES

3.1.1 Student Module

Student Information Management System provides a simple interface for maintenance of student information.

Student Master:

- Create edit, delete, student id entry, promotion.
- Create login to students.
- Create Edit, delete of degree details of student.
- Create edit, delete of course and semester details of student.

Student Transaction:

- View student details
- View new admission details
- View updated student-id details
- View promotion details

3.1.2 Faculty module:

Faculty module provides a simple interface for maintaining and updating of student information.

Faculty master:

- Assigning a task to the students
- Updating the students information
- Can take Attendance

Faculty transaction:

- View student details
- View uploaded Assignment
- View Notices

3.1.3 Parents module:

Parents module provides a login credentials to the parents to view the Students Academic performance.

Parents master:

- Check the students Notices
- Gives the review
- Pay the fees

Parents Transaction:

- View students Attendance
- View student updates
- View Students Marks
- View Fee Payment History

3.1.4. Accounts Module:

Accounts module is to pay the fees of the Students.

Accounts Master:

- Request the fees
- Upload the Students fee details

Accounts Transaction:

- View students payment
- View history of payment

3.1.5. Attendance Module:

Attendance Management System is software developed for daily student attendance in schools, colleges and institutes. It facilitates to access the attendance information of a particular student in a particular class.

Attendance master:

- Enter the degree name
- Enter the course and department name
- Enter the academic year and date of admission details

Attendance Transaction:

- View the Attendance report
- View the attendance entry
- View the attendance list by semester wise
- View of attendance session

3.1.6 Fees Module:

Fee management software helps in billing students of a college / school. It provides Course Fee details, Student payment, mode of payment and balance information.

Fees Master:

- Enter academic year details
- Enter degree student details
- Enter department details
- Enter semester details(semester 1, 2, ...)

Fees transaction:

- Set the fee details
- View fees type details
- View of total amount paid details
- View the fees structure
- Fees receipt

3.1.7 Academic module:

Academic management automatically allocate time table individually and also generate exam schedule, meeting, scholarship programs, assignments and progress report for student and staff members.

Academic master:

- Allocate time table for student
- Allocate time table for staff members
- Allocate time table for exam schedule
- Allocate meeting, scholarship programs, assignments
- Entering the mark details in progress report

Academic transaction:

- View of staff timetable
- View of student timetable
- Show of semester exam schedule

- View of meeting, assignment of work for staff
- View of scholarship details

3.1.8 Administration Module

Admin can login using username and password. If it is new user can register the account by username, email id

The Admin role can be as follows:

- Add/Modify faculty
- Add/Modify Student
- Add/Modify batches
- Attendance
- Search student (course, progress, batch, basic information)
- Search faculty (course, batch, basic information)
- Reports

3.2 ALGORITHM (COSINE SIMILARITY)

- Cosine Similarity is a common calculation method for calculating text similarity. The basic concept is very simple, it is to calculate the angle between two vectors.
- The angle larger, the less similar the two vectors are, the angle smaller, the more similar the two vectors are.

$$\text{Cos}(x, y) = \frac{x \cdot y}{\|x\| * \|y\|}$$

Where,

- X and y = vector
- X.Y= product(dot)of the vector's "x" and "y".
- $\|x\|$ and $\|y\|$ =length of the two vectors" X" and "y".
- $\|x\|*\|y\|$ =cross product of the two vectors "X" and "Y"

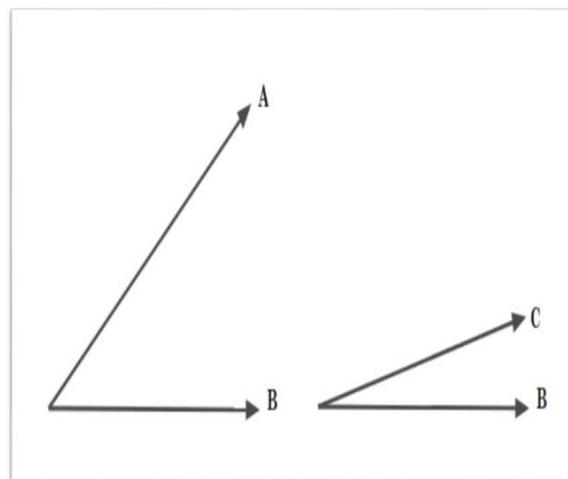


Fig 2- Algorithm graph

IV.CONCLUSION

While employing an ERP system may be expensive, it offers organizations a cost efficient system in the long run.

ERP software works by integrating all the different departments in on organization into one computer system allowing for efficient communication between these departments and hence enhances productivity.

The organizations should take extra precautions when it comes to choosing the correct ERP system for them. There have been many cases that organizations have lost a lot of money due to selecting the 'wrong' ERP solution and a service provider for them.

V.FUTURE ENHANCEMENT

Make online exam more effective, efficient and more dynamic so that it helps to get a good support from the student.

It has been marking while this application open in other browser due to designing support. It's more support to Mozilla as compare to other browser.

Online result printing and more user interaction functionality and features need to be developed. Needs to improve more security for the purpose of the safety.

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