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e-ISSN: 2320-9801 | p-ISSN: 2320-9798



INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN COMPUTER & COMMUNICATION ENGINEERING

Volume 10, Issue 5, May 2022

ISSN INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA

Impact Factor: 8.165



9940 572 462



6381 907 438



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ERP System of Siddhant College of Engineering

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ABSTRACT: In this project our main motto is to create the students ERP (Enterprise resource planning) system. Now a days it's very difficult to manage all the record and difficult to analyse all the record in any department. The objective of this project 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.

KEYWORDS : Wi-Fi, Html, Php, Mysql, Admin, College, Database, Faculty, System, Students.

I. INTRODUCTION

Enterprise Resource Planning (ERP) college web application is the one kind of web application which integrates all the modules and functionalities of college system on a single system that can be handled by the administrative head and access by the students and faculties with valid user id and password.

As we know that, a college consists of different departments, such as course departments, fees management, library, event management etc. Nowadays applications and uses of information technologies is increased as compared to before, each of these individual departments has its own computer system to do their own functionalities. By having one main system they can interact with each other from their respected system by having valid user id and password.

The main goal of the entire system is to provide a user- friendly interface and powerful data system which make this system more useful. The College ERP system computerizes all the details of the college system which are updated by admin only can access by the students and faculties. ERP on college management system reduces the most of the human work that are done earlier to managing the college system. Once the details are entered into the system by the authorized person then there is no need for other users to deal with separate section. Only a person that is having an administrative authorization is enough to maintain all the reports and records of the system. The security can also be provided as per the requirements. The main thing is that our system reduces the human works at a great effort.

It can be helpful such that

- Records are always updated.
- Manpower is decreased or reduced.
- Large amount of data regarding college and their modules can be stored.
- Accurate and perfect calculations are made.
- Maintenance of file is efficient and flexible.

Purpose

The purpose is to design software for college database which contains up to date or accurate information of the college. That should improve efficiency and flexibility of college record management and to provide a common and or simple platform for everyone to access the student's information.

II. SCOPE FOR DEVELOPMENT OF THIS PROJECT

1. Search information.
2. View/change his/her details.

3. Login to the system through the first page of the application.
4. Changes can be done by admin only.

III. DIFFERENT MODULE OF ERP ON COLLEGE MANAGEMENT SYSTEM

1. Registration/login of admin.
2. Student/faculty registration/login.
3. Management of exam/lecture time table.
4. Management of attendance of student/faculty.
5. Management of library system.
6. Fees Management Module.
7. Account Management.
8. Student management Module.

FIGURES AND TABLES

1. Flow Chart

A flowchart is a type of diagram that represents an algorithm, workflow, or process, showing the steps as boxes of various kinds, and their order by connecting them with arrows. This diagrammatic representation illustrates a solution model to a given problem. A flowchart is described as "cross-functional" when the page is divided into different swim lanes describing the control of different organizational units. A symbol appearing in a particular "lane" is within the control of that organizational unit. This technique allows the author to locate the responsibility for performing an action or deciding correctly, showing the responsibility of each organizational unit for different parts of a single process. Flowcharts are used in analysing, designing, documenting, or managing a process or program in various fields.

The flowchart of our project is describing the general flow of data that how the user is sending the request by enabling his GPS location and by clicking photos and videos.

We have constructed our flowcharts in two sections (describing the two features) so that it becomes easy for us to understand the flow of our project.

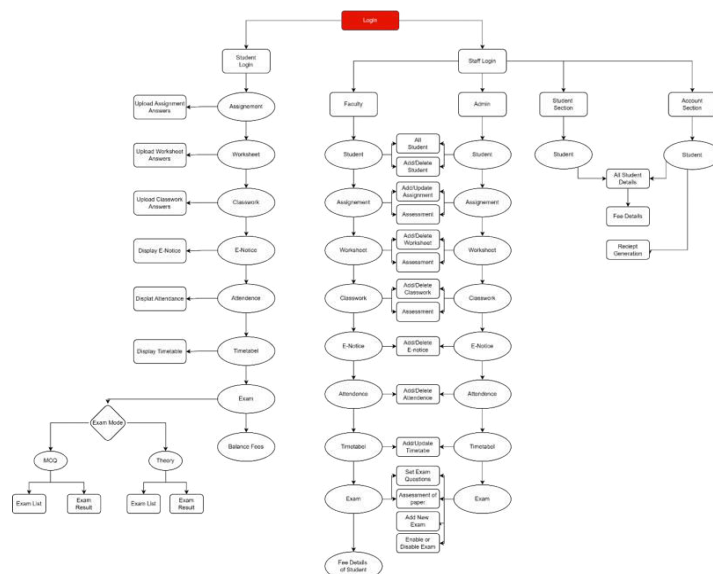


FIG. Plan of Work

2. Use-case Diagram

A use-case diagram are usually referred to as behaviour diagrams used to describe a set of actions (use cases) that some system or systems (subject) should or can perform in collaboration with one or more external users of the system (actors). A use case diagram at its simplest is a representation of a user's interaction with the system that shows the relationship between the user and the different use cases in which the user is involved. A use case diagram can identify the different types of users of a system and the different use cases and will often be accompanied by other types of diagrams as well.

- Elements of Use case Diagram
- Actor: It is an external entity that interacts with the system and it is denoted by a stick man
- Use case: It specifies a distinct function of a system, and it is denoted by an oval
- System Boundary Box: It is used to collect all the use cases of a system and it is denoted by a rectangle
- Association: It is used to denote the functionality performed by an actor and it is denoted by directed line.

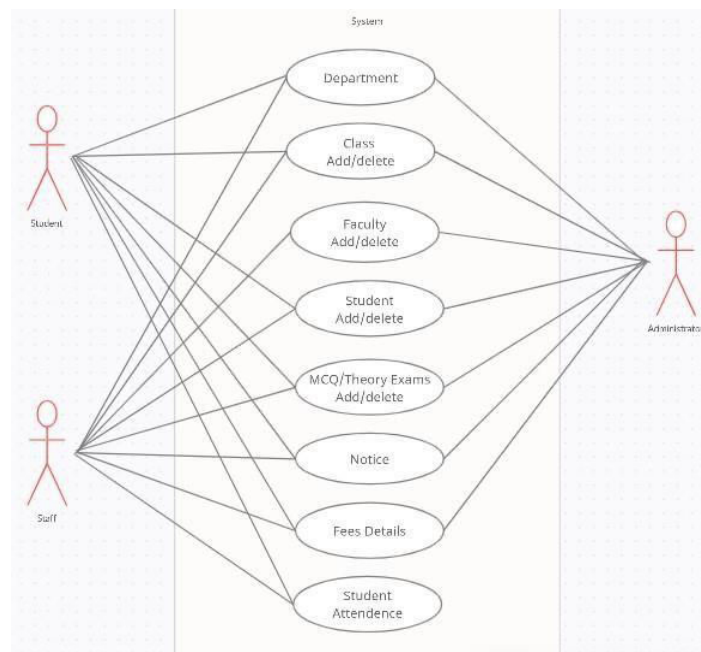


Fig. Use case Diagram

3. Data Flow Diagram

- A data flow diagram (DFD) is a graphical representation of the "flow" of data through an information system modelling its process aspects. ADFD is often used as a preliminary step to create an overview of the system, which can later be elaborated. DFDs can also be used for the visualization of data processing (structured design).
- A DFD shows what kinds of information will be input to and output from the system, where the data will come from and go to, and where the data will be stored. It doesn't show information about the timing of processes, or information about whether processes will operate in sequence or in parallel.
- Guidelines of DFD (Data Flow Diagram):
- Naming conventions
- No more than 7 - 9 processes in each DFD.
- Data flows must begin, end, or both begin & end with a process.
- Data flows must not be split.
- A process is not an analog of a decision in a systems or programming flowchart.
- Loops are not allowed.
- A dataflow cannot be an input signal.

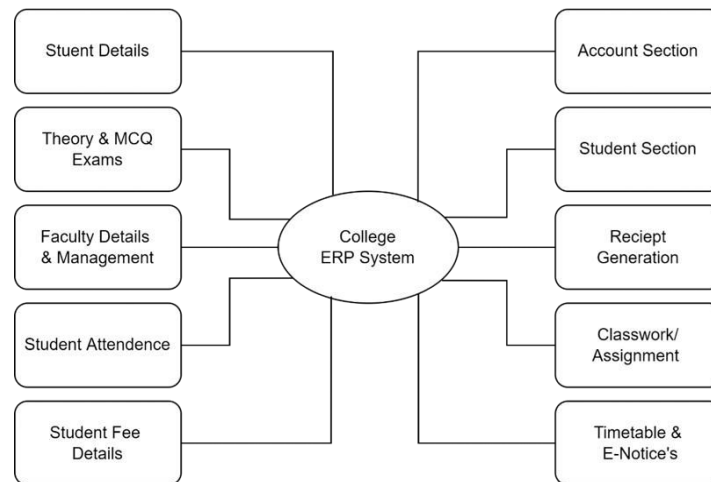


Fig.Data Flow Diagram

Highlight of some main modules of the system:

1. Department Information: This module gives the information about,
 - Course: This contains the information about the number of the courses offered by the college and number of seats present in each.
 - Staff: This contains the number of staff available in each department.
2. Student Information: This module gives information about,
 - Profile: This provides personal details of the student.
 - Attendance: This shows the attendance of students.
 - Marks: This shows the internal/external marks of a respected student.
 - Feedback: By this student gives their feedback to the management
 - Remarks: Shows their marks given by the teachers to a student according to their performance.
3. Faculty / Staff Information: This module deals mainly with,
 - Profile: This provides personal details of the staff.
 - Attendance: This shows the attendance of faculty/staff.
 - Feedback: Faculties/staffs gives the feedback to the management.
4. Examination Form: This gives the information about the issue of the examination form.
5. Administration: This module deals mainly with,
 - Admission: This mainly deals registering the students/staff and assigning them with a login id and password.
6. Library management: deals with, Issue books.
 - Update books collection according to requirements
 - Late fine.
 - Issue books.
 - Update books collection according to requirements
 - Late fine.

Some Features:

1. User login.
2. Admin login.
3. Forget password control by admin and or by user.
4. Update details/delete/add detail by admin.
- 5.

Types Of Testing

1. Testing Strategy

Software testing methods are traditionally divided into white- and black-box testing. These two approaches are used to describe the point of view that a test engineer takes when designing test cases.

2. White box

Testing in white-box testing an internal perspective of the system, as well as programming skills, are used to design test cases.

3. Black box

Testing Black-box testing treats the software as a "black box", examining functionality without any knowledge of internal implementation. The testers are only aware of what the software is supposed to do, not how it does it.

5. Grey-box

Testing Grey-box testing involves having knowledge of internal data structures and algorithms for purposes of designing tests, while executing those tests at the user, or black-box level. The tester is not required to have full access to the software's source code.

Testing Levels

2. Unit testing

It is the testing of individual software units of the application .it is done after the completion of an individual unit before integration. Unit testing involves the design of test cases that validate that the internal program logic

is functioning properly, and that program inputs produce valid outputs. All decision branches and internal code flow should be validated. This is a structural testing, that relies on knowledge of its construction and is invasive. Unit tests perform basic tests at component level and test a specific business process, application, and/or system configuration. Unit tests ensure that each unique path of a business process performs accurately to the documented specifications and contains clearly defined inputs and expected results

IV. ANALYSIS AND DESIGN

1. Hardware Requirements

1. Our Project is just a onetime investment product, which has the minimum requirements that every user already possess.
2. Hardware Specification (Minimum):
3. > CPU: Intel i3 (2.3GHZ or Higher)
 - RAM: 4GB or Higher
 - Storage Space: 80GB
 - Monitor: 19" inches LED with VGA & HDMI Port
 - Bandwidth: 10mbps scalable
4. The software requirements of our project consisted the following: > PHP (Hypertext Pre-processor) > MySQL Database

3. Cost Analysis:

Costing Analysis is most frequently used for evaluation of the effectiveness of the system. More commonly known as economic/benefit analysis the procedure is to determine the benefits and saving that are expected from a system and compare them with costs, decisions made to design and implement system. This part of feasibility study gives the top management the economic because very often the top management does not like to get project of this kind. A simple economic analysis that gives the actual comparison of costs and benefits.

V. ADVANTAGES AND DISADVANTAGES

a. Advantages

5. Easy access to find out the details.
6. Safe and secure of data or information and files.
7. Lowering the task weigh
8. Increasing efficiency
9. Better control
10. Real time reports
11. Better student relations

b. Disadvantages:

- The success depends on the skills and experience of the workforce, including education and how to make the system work properly.
- Sharing internal information between departments can reduce the efficiency of the software.

VI. ACKNOWLEDGMENTS

It gives us great pleasure in presenting the preliminary project report on 'ERP System for Siddhant College of Engineering'. We would like to take this opportunity to thank our internal Guide name and HOD Prof. Sushma Shinde for giving us all the help and guidance which we needed. we are grateful to them for their kind support. Their valuable suggestions were very helpful.

At last, we must express our sincere heartfelt gratitude to our Parents who helped us directly or indirectly during this project work.

VII. 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 timetable and keeping track of the daily schedule. But by developing this web- based application the administrator can enjoy the task, doing it ease and 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.

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