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# A Review on College Management System

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**ABSTRACT:** College Management System project is supposed to be developed in open source platform. The main objective of this system is to design and develop a software portal for schools or colleges for maintaining lectures details, student's attendance information, and student's fees details. Students will use this system from anywhere to know about details on attendance and fees paid and online classes. Latest data on attendance and online classes and fees paid will be modified or updated by the administrator which will be available for lecturers and students. Presently to maintain data about different aspects, the school or college is using manual process i.e., using huge registers and books. Now the school or the college needs a computerized and advanced environment where it is simple for storing data regarding student information, their attendance, fees details, fees, online classes and schedules. In current manual flow it is a difficult job to manage and maintain data. It's also time consuming. There is a total wastage of stationery products and more human resources and manpower effort is required. We are now planning to develop a computerized and automatic environment which will replace all these issues.

**KEYWORDS:** Online Class, Fees Management, Attendance Management, College Management, Online Attendance.

## I. INTRODUCTION

The main objective behind this research is to develop a GUI (Graphical User Interface) based online software application i.e. platform independent & user friendly and it can be fit into any college system. Though a college management software is actually custom based, as it is developed for meeting the requirements of a particular college but we are proposing a system as a global one which can satisfy the needs of all college systems as well as schools and institutions. The topic of our research is very diverse as it will manage a college which is itself a huge organization. Some features of the proposed system are like online classes management, student fees management & student attendance management. The system will be used to manage the data of all type of educational institutes. It will support both stand alone and also networking environments. The system will use web technologies in its design & implementation. Our proposed system will have a database of students' details in all aspects which can facilitate the user to explore all the attendance, online classes & fees payment transaction-related activities happening in the college.

## II. RELATED WORK

In [1] This paper used Jsp-Servlet which is more flexible and more convenient. When using JSP-Servlet, user can increase dynamic flexibility of the pages. With advance java technology more efficient enterprise portal can be created. [2] This prototype provides an amalgamated solution for replacing existing conventional attendance system with embedded attendance system. Main advantages are its very low cost, small size, efficient with low energy consumption, this prototype is not only cheaper, efficient, having low power design, upgraded for any other type of data acquisition system, easy to use but also not having any troublesome process of installation like in biometric and RFID devices which includes wall mounting and stretching of long wires [3] Both learners and teachers can benefit from such a system by getting proper feedback on performance. Medical educators as well can benefit by optimizing managerial and educational aspects of assessments. [4] It is an Android based mobile application for College Management System. it is reliable, fast execution and easy control. This app can be used as a fundamental prototype for creating and enhancing applications for viewing results, tracking attendance for colleges or any workplace. Parents and students can view results, attendance and curriculum details using this prototype. Students can view details, notifications anywhere and anytime. This prototype simplify and speed up the result preparation and management task. It has advertisements of the college thus provide better satisfaction to the HSC and diploma students. This prototype gives us high security and a system that is the good replacement of traditional process. Its attractive and responsive user interface provides a new way of computation. [5] This is a smart connect application in automating the existing manual system. This is a paperless work. It can be monitored and controlled remotely. It reduces the man power required. It provides accurate



information always. Malpractice can be reduced. every years gathered information can be saved and can be accessed at any time without any delay. The stored data helps in decision making by the management. So it is good to have a Web and Android Based College Management system. All the management, faculty, student and parents can get the required information without delay. This system is essential in the colleges. [6] This paper assists in modifying the existing system to a site-based system. This is paperless work. It can be monitored and controlled remotely. It reduces the manpower required. It provides accurate information always. Malpractice can be reduced. All saved and extra collected information can be accessed at any time. The stored data in the project helps in taking intelligent and quick decisions by the management. All the stakeholders, staff members can get the desired information quickly without any delay. This system is very useful in the colleges/hostels and universities. [7] This prototype objective is to solve the issues by integrating face recognition in the process. Even though this system still lacks the ability to identify each student's presentation in class, there is still much more room for improvement. it implements a modular approach that can improve different modules until we reach an acceptable detection and identification rate. [8] This paper gives us the idea of site based or web based system. This is paperless work. It can be monitored and controlled remotely. It reduces the manpower required. It provides accurate information always. Malpractice can be reduced. Complete information gathered online can be accessed at any time. The stored data in the system helps in taking intelligent and quick decisions by the management. So it is a good practice to have a Web-Based college Management system. All the stakeholders can get the desired information without delay. This system can be use as a good replacement of traditional pen paper system for colleges/hostels and universities. [9] This study focuses on the features of college track and field sports, such as numerous competition events, many athletes, tight time and heavy workload, and proposes an automatic checking mode for athlete identification combined with ID cards, an card reader, and a computer. Given that RFID technology is unique, it can rapidly identify personal information of athletes, prevent cheating, and improve sport management level. The completion of this system serves a promotional function for the development of college sports. Moreover, using RFID technology in college sports also significantly promotes sports as a whole. [10] The review helps in building the system for attendance automation. It also gives monthly individual attendance for proper action to be taken accordingly. With this approach, they have proposed an efficient Student Attendance System to take and maintain the attendance of students for all educational institutes. This proposed system along with taking and viewing attendance will provide additional features i.e. to put requests to the respective teachers so that unmarked attendance can be marked. Also, there will be a provision for resuming lectures to other teachers. Thus this system will be beneficial for all institutes.

### Proposed algorithm

The objective of this prototype is to manage each and every required section. A prototype will handle with accuracy eliminating many mistakes that a person on the job performs due to any reason and will be able to make the operations even faster. Every department for us will be a module and will have independent working criteria but in one way or the other, they will be related with one other, and by collecting these modules a collage is formed which we have to manage. The main modules involved in this system will be:

1. Online Classes – This will be used to schedule and manage the video conferencing based sessions for the students with video recording feature.
2. Student Fee Management - This will be use to manage the student’s fee details like paid amount, balance amount & transaction reports.
3. Student Attendance Management - The user will be able to get the attendance percentage of a batch and can also be useful for all reporting purpose & tracking of attendance.

Hardware requirements for our proposed system	Software requirements
Pentium 4 or Higher Generation Processor	Any web browser (Internet Explorer, Chrome, Firefox, Opera etc.)
Minimum 256MB RAM & 10GB free HDD disk space	XAMPP or WAMPP Server
Network connection with 100 Mbps transfer rate	
Server to control the database	
Minimum 1MB cache memory	
Web camera with HD picture resolution	

### III. PROPOSED SYSTEM FLOWCHART

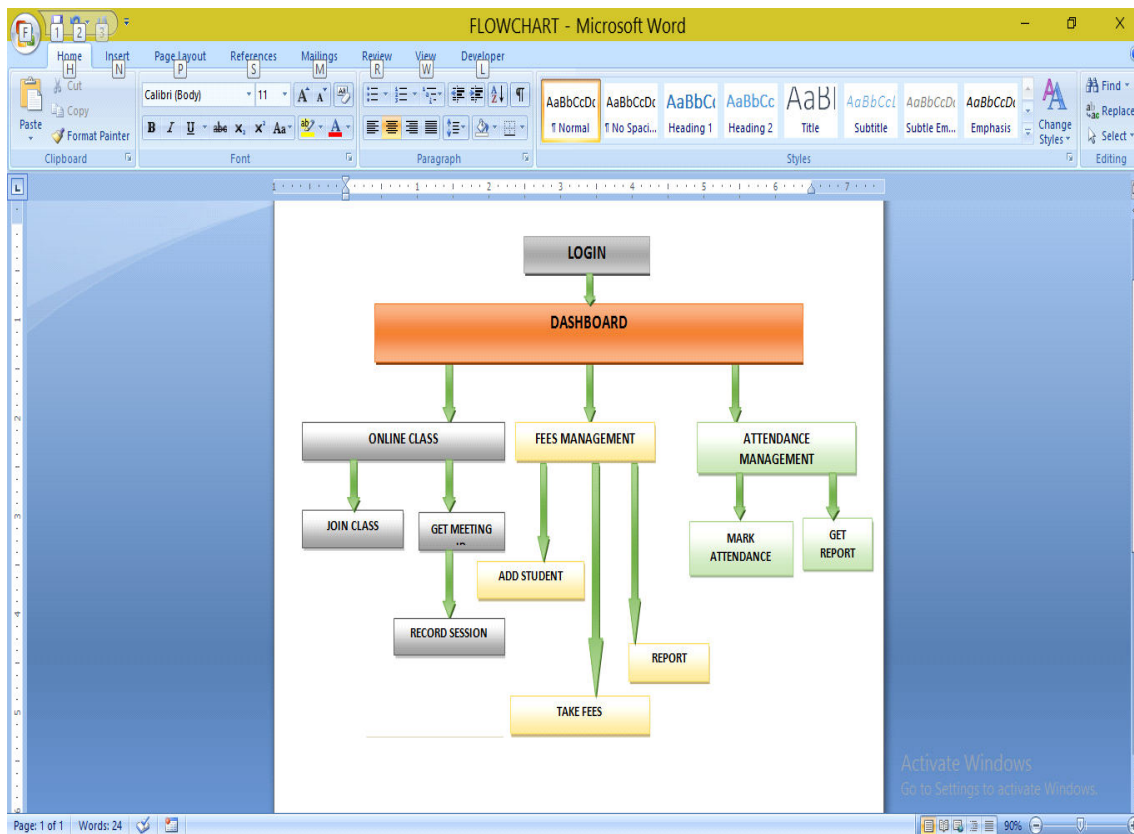


Fig: proposed system flowchart

### IV. CONCLUSION AND FUTURE WORK

As per the literature review our proposed algorithm will performs better in networking environment and also make the execution faster than any other pre-existing software application. The proposed algorithm will provide an cost efficient way of data management and wastage of memory will also be overcome. As we know that storage devices are cost consuming so by saving space we will save money and will provide a cost effective system. We will analyze the performance of the proposed system and will try to make highly efficient application with open source platform.

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