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ONLINE COLLEGE MANAGEMENT SYSTEM- An Smart Web Application for Colleges

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ABSTRACT: The College management system is nothing but an automated version of the manual Student Management System. The system can access by every faculties/employee of the institution through internet-connected computers that can handle all the details about a student. The details include student personnel details, academic enrolment details, etc... In the case of a manual system, organization need a lot of time, manpower, etc. Here almost all work is computerized. So the accuracy is maintained. Maintaining backup is very easy. It can do within a few minutes. College Management System is an integrated web application that handles various activities of a College/Academic Institute and deals with scheduling the online classes, student fees details, due & paid amount related reports, and attendance related details too. It manages all the details of a student from day one to the end of his course which can be used for all reporting purposes, online class management & tracking of attendance. This paper is an extention of our previous published work "Review-college management system."

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 have proposed a system as a global one which can satisfy the needs of all college systems. 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 can be used to manage the data of all type of educational institutes. It will support both stand alone and also networking environments. The system uses 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 anamalgamated 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.

Proposed algorithm

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

1. Online Classes - This is used to schedule and manage the video conferencing based sessions for the students with video recording feature.

2. Student Fee Management - This is used to manage the student's fee details like paid amount, balance amount & transaction reports.

3. Student Attendance Management - The user can get to know the attendance percentage of a batch and can also be used 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. RESULTS

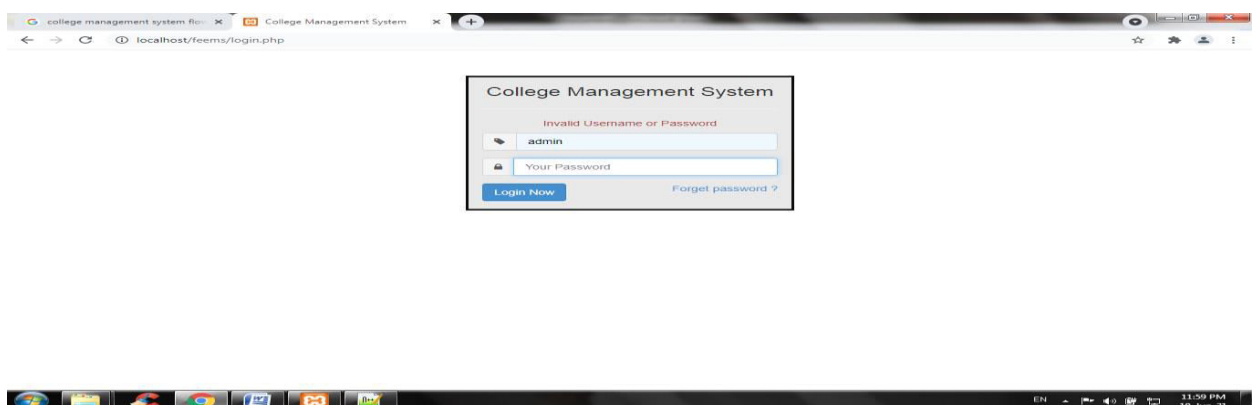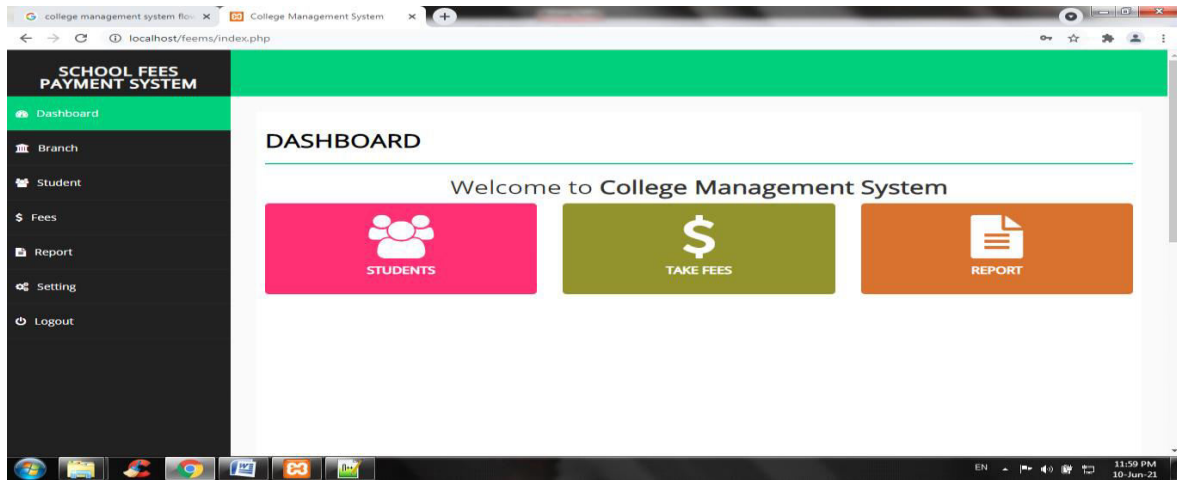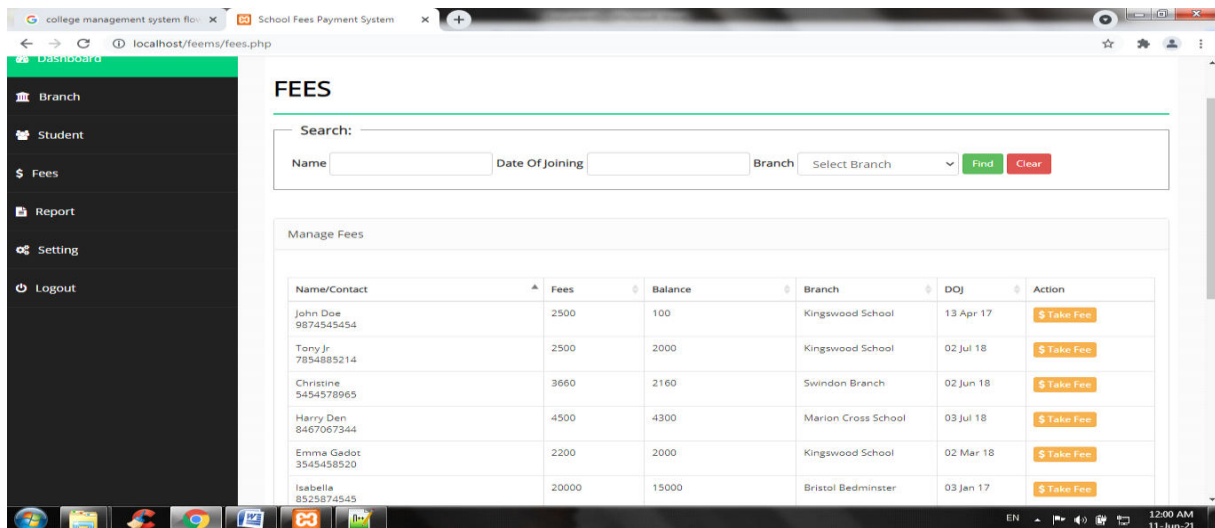
Figure 1: Login Form

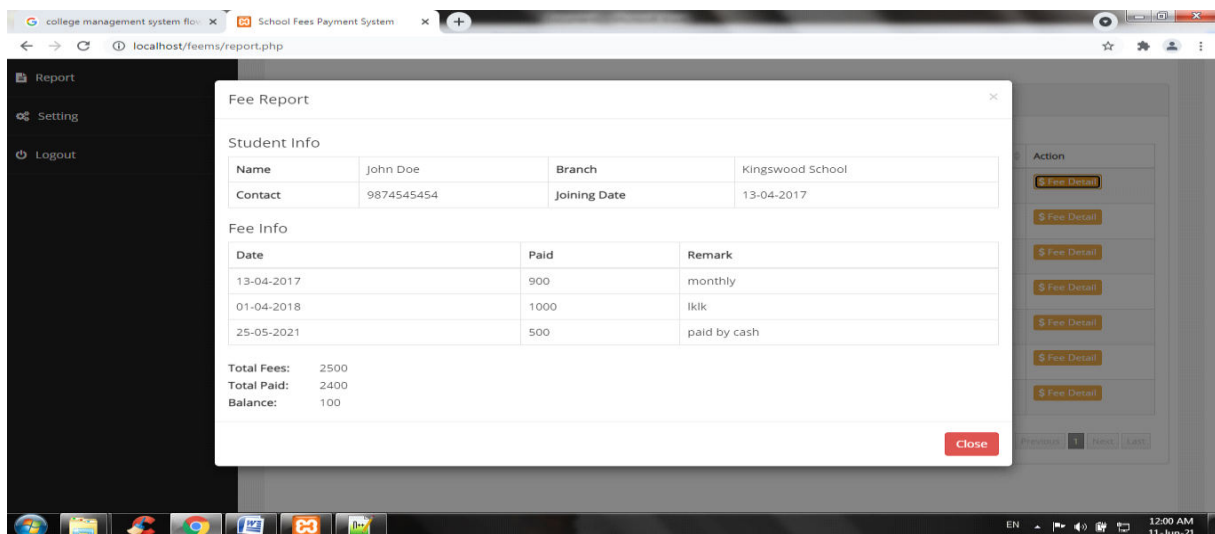Figure 2: Dashboard Page

Figure 3: Fees page
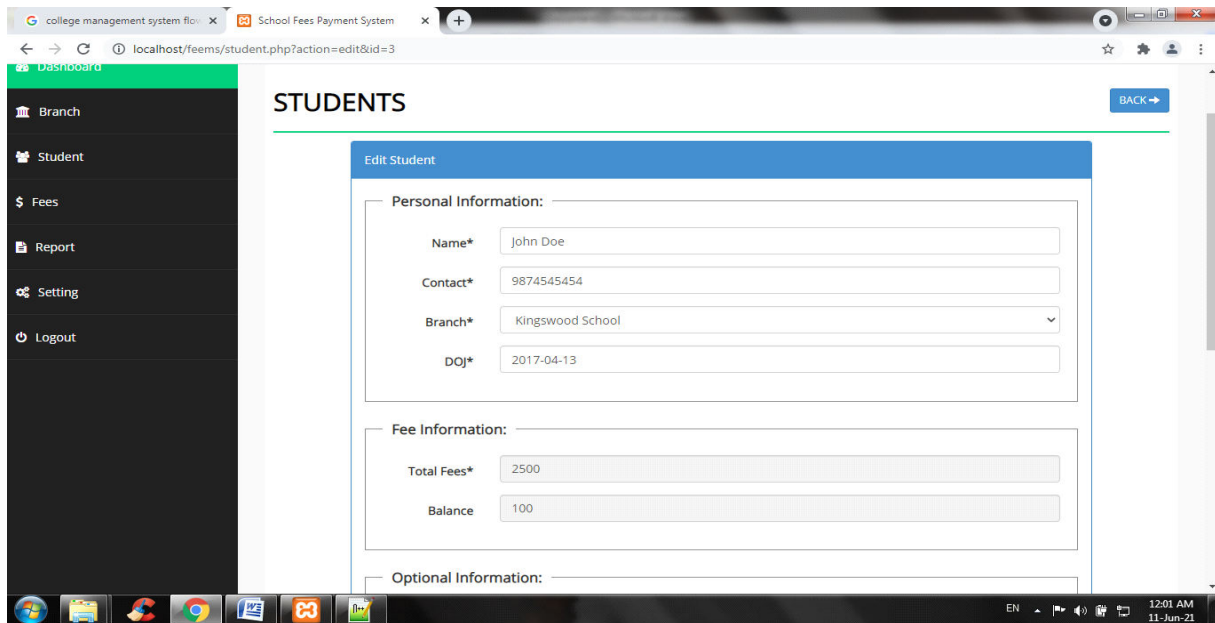

Figure 4: Fee Report

Figure 5: Student Form

IV. CONCLUSION AND FUTURE WORK

The simulation results tested on local host server showed that the proposed algorithm performs better in networking environment and also make the execution faster than any other pre-existing software application. The proposed algorithm provides an cost efficient way of data management and wastage of memory is also overcome. As we know that storage devices are cost consuming so by saving space we are saving money and providing a cost effective system. As the performance of the proposed algorithm is analyzed, in future with some modifications in design considerations the performance of the proposed system can be compared with other high efficient applications.

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