

Advanced College Management System

Mr. Ansari Uzair Ahmed¹ Mr. Sachdev Karan² Mr. Sayed Aamez³ Mr. Sawood Ahmed⁴

^{1,2,3,4}Vishwabharti Academy's College of Engineering, Ahmednagar, India

Abstract— We proposed a system to store and access the data of college like student information, teacher information, staff, attendance, Message alerts, Notice board and much more. Since many colleges can store and access on a single platform the database to store such a huge amount of data is done possible by using the Amazon Web Server (AWS) Cloud storage. By using the Multi-tenancy, it has been possible to collect all the colleges on a single platform. Every college registering with the management system will get a username and password to access their respective college. There are also some security issues maintained so that no any college could access the information of any other college. Since every college is having its individual application to store and access data but is not providing much features along with it, so because of the Multi-tenancy used in the system many colleges can join and store their college information.

Key words: LAMP Stack- Linux Apache Mysql php, AWS, Email Alerts, RDS, VPC, EC2

I. INTRODUCTION

We proposed cloud based multi-tenant system to store and access the different types of data of colleges like student information, teacher information, staff, attendance, Notice board and much more. Since many colleges can store and access their respective system on through this platform we are supposed to use AWS service like RDS, VPC and EC2. Due to multi-tenancy in nature, it have been possible to collect all the colleges on a single platform.

With the rapid development of national economic construction, India's higher education system has changed fastly. In recent years, institutions of higher education increasingly expand the enrollment, and it is more difficult to manage students in college. In the 21st century, information technology is an important and irreplaceable work currently in the construction of modern universities.

Exploiting Digital and informatics in universities has been attracted more and more attentions. In general, with the increasing number of students in college.

Considering current situation in college student management process, student management system is of great importance to satisfy the new requirement of the development of student management. Hence, it is very urgent to develop a practical and effective student management system using technological innovation. The destination of our research is to effectively solve the prominent contradiction and problems between the heavy workload and the scarcity of human resources in current student management. Most universities in India have independently developed information management system for themselves. However, considering there are many differences in various universities, it is very complex to utilize student information management system. Hence, in this paper, we aim to design and develop a student management system for colleges utilizing computer aided system.

II. PROPOSED SYSTEM

In this system the information of college is managed by the admin through the application. The main application is maintained by the super admin. All the details of staff, students, hostel applicants, attendance, latest notices. Notices board notifications are delivered through mail to respective students and parents.

This system supports multi-tenancy through which multiple colleges can access the application with provided login id and password. The system is stored on Amazon web services. The system has given individual level access to every one according to there requirement.

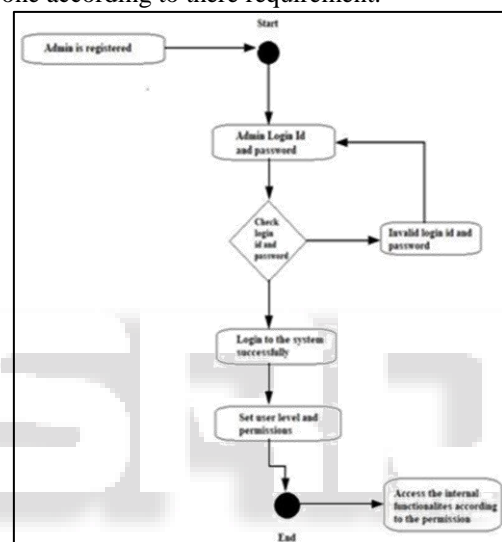


Fig. 1: Structure of College Management System

In order to make the student management system easy to use, requirement analysis should be done at first. First of all, we should determine the role of various users. In the proposed, we divide users into three categories, that is, system administrators, teachers and students. User roles design is listed as follows.

A. Student

Student is the lowest authority in this system, and we aim to let this system provide high quality service for students through timely understanding what students need.

B. Teachers

Teachers perform as a bridge between school and students, and teachers directly contact with students.

C. System Administrator

As the highest authority role in the college the student management system, this kind of user is designed to assign and manage student's management.

Information of students, teachers, attendance etc.. Can be stored with ease. Accountant can keep all the record of the fees paid and the pending fees of the students on the system.

Notice board notifications can be send to students and parents through email. Many colleges can to able to store and access their data with the help of multi-tenancy. The accountant, department and students will have their individual access to the system as per the requirement.

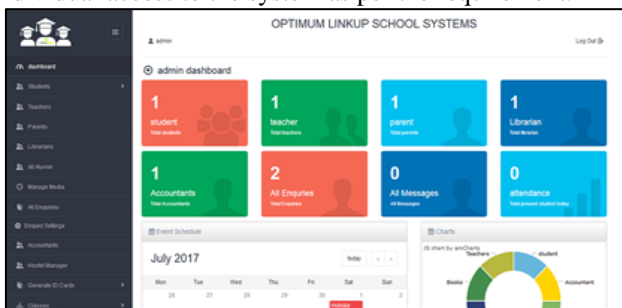


Fig. 2: Application Front View

Dashboard is the first page after logging in the application. It includes all the facilities that is included in the application which becomes easy for the admin to search particular module and access or insert data in it. Example of dashboard image is shown in Fig 3.

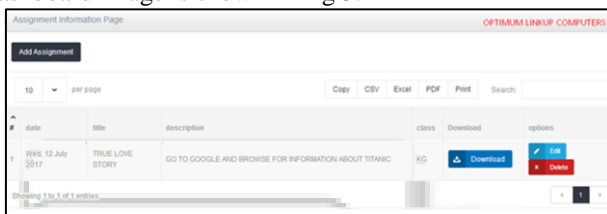


Fig. 3: Assignment Information Page

In this module the admin has the ability to provide any information which will be useful for the students in the current academics. Here students can download the information if any and gain knowledge about it.

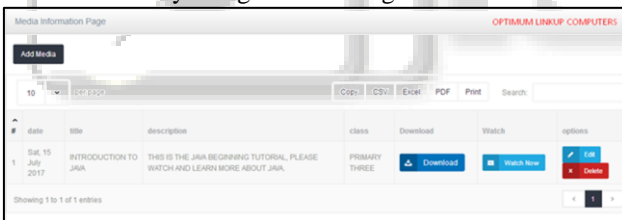


Fig. 4: Media Information

In media information the student can watch the Course video or download it which can be beneficial to the student for the academics. Instead of searching on internet the student can get the information ready mate in the application.

III. ADVANTAGES

- 1) This system is easy to manage college data.
- 2) It supports multi-tenancy.
- 3) It contains noticeboard notifier for latest updates.
- 4) It supports multiple access to the system.
- 5) Easy to use.

IV. CONCLUSION

This system is developed for college management system. This supports multi-tenancy where we provide this system to number of college with limited login ID's. Students can only view there information and related notified messages. Details of students can be managed and edited by the limited login

ID's provided. Details of total number of teachers and faculty is managed in seperate teacher module with dashboard user/faculty can view the statistics of the students attendance. All the details displayed manually on the notice board will be sent to the students and parents mail ID's. All the details of the students will be known to the parents.

REFERENCES

- [1] Wei Huei-Chuan, Peng Hsinyi, Chou Chien, Can More Interactivity Improve Learning Achievement in an Online Course Effects of College Students' Perception and Actual Use of a Course- Management System on Their Learning Achievement, *Computers & Education*, 2015, 83: 10-21.
- [2] Cone Trey III, Redus Brady S, Computer Based Health Management System and Overall Optimism in College Age Students, *Medicine and Science in Sports and Exercise*, 2014, 46: 503-504.
- [3] Briukhanov V M, Kiselev V I, Timchenko N S, Vdovin V M, Monitoring the Opinions of Parents of College Students as a Component of the Institution'S In-House Education Quality Management System, *Russian Education and Society*, 2010, 52(5): 79-88.
- [4] Horvat Ana, Dobrota Marina, Krsmanovic Maja, Cudanov Mladen, Student Perception of Moodle Learning Management System: A Satisfaction and Significance Analysis, *Interactive Learning Environments*, 2015, 23(4): 515-527.
- [5] Weng Martin M, Chen Yung-Hui, Hang Jason C, Shih Timothy K, Hsu Hui-Huang, An Ims-Qti Compliant Multimedia Assessment Management System with Spc and Student Response Time to Analyze Learning Activities, *Journal Of Internet Technology*, 2015, 16(2): 223-244.
- [6] Natek Srecko, Zwilling Moti, Student Data Mining Solution- Knowledge Management System Related To Higher Education Institutions, *Expert Systems with Applications*, 2014, 41(14): 6400-6407.
- [7] Cone Trey III, Redus Brady S, Computer Based Health Management System and Overall Optimism in College Age Students, *Medicine and Science in Sports and Exercise*, 2014, 46(5): 503-504.
- [8] Currie Kay, McCallum Jacqueline, Murray John, Scott Janine, Strachan Evelyn, Yates Lynda, Wright Marty, Developing a National Computerised Absence Monitoring and Management System to Reduce Nursing Student Attrition: Evaluation of Staff and Student Perspectives, 2014, 34(5): 738-743.