ONLINE COLLEGE MANAGEMENT SYSTEM

PROJECT PROPOSAL

Higher National Diploma In Information Technology

M.S .MUFASA

BAT/IT/2018/F/0063

Sri Lanka Institute Of Advance Technological

Education

(SLIATE)

Contents

Project Details

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Introduction

ONLINE COLLEGE MANAGEMENT SYSTEM is currently managed manually without any automated IT solution, Student records, lecture records, records related to courses are currently logged manually which is time consuming and low efficient.

The new system will be developed to provide a solution which is elegant, more secure, less time consuming and efficient which will result in increasing the revenue of the company. The processes such as student registration, assigning student to a courses, examination scores / marks is few of the tasks which will be managed using the systems. The current manual process which is carried out manually will be fully automated using the system. Retrieval of data which was time consuming and less efficient will be the most easiest activity due to the advance search functionality build in the system, Built in search filters will help any user to find respective details easily.

The system will be designed to work with all devices such as mobile phones, tablets, phablets on for device with larger displays. Students will be able to login to their accounts and check their examination results and update their profile details, even the lectures are given a separate control panel to carry out their respective work using the system. The system can be accessed using anywhere in the world using any device.

Background and Motivation

Due to the development of the new IT solution, tasks which were less secure and time consuming is now secured and takes seconds to deal with, due to respective user groups such as students and lectures having access to the system from anywhere in the world, the front desk operators have less tasks in hand.

All the previous drawbacks of the manual processing was identified and fixed to provide a better user experience and to consume less time. The system is highly secured due to the technologies which is backing the server side and no data cannot be tampered.

The software is built to use less system resources but to provide and solid experience to its users, ONLINE COLLEGE MANAGEMENT SYSTEM now has an elegant IT solution which speeds up their day to work which will increase their revenue and satisfy its students and lectures.

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Problem in Brief

Online college management system its gets more time consuming when using the default method system is store logged in user id in the session so, we have using some easy techniques & ethics.

Aim

The Project is There are 3 types of users in the system, which are coordinator, lecturers, and students. The coordinator has all privileges to do anything in the system, he/she can add students, delete students, update students, submit all subject results, update all subject results and manipulate lecturer's data. The lecturers can submit students subject results. The logged in lecture can only submit authorized subject or subject's results. Students has permission to view their submitted results, and personal information's and also they cannot edit their results.

Project Objectives

The main objective of developing the College Management System is to provide an easy way not only to automate all functionalities of a college , but also to provide full functional reports to top management of college with the finest of detail about any aspect of college .

- Maintain the students, lecturer & employees records   separately
- Minimization redundancy.
- The coordinator can see and access the student's data.
- To know number of course given to students in the college.
- To provide fast accurate and consist response.
- Admin can send the approval notification to every approved student via email.
- Students can register their complaints.
- Easy searching students, lecturers & employee.
- Proposed system is according to the current demand.

Proposed Solution

The security enhancements which can be applied to user accounts is to add 2 step authentication / Mobile verification since any person with the email address and password of a user is able to

make a login to any users account, Also implementing SSL on the server side will minimize the chances of sensitive data link credentials been sniffed through the network.

The user accounts are already carrying permissions along with them which are predefined, a more elegant solution can be developed to create user groups and appoint permissions to specific user types by an authorized super admin which makes the system more stable and dynamic.

The current system does not have any reporting built in or any system to monitor resource usage of the server, By building this module, the system administrator have more detailed reports and event log which took place on the server and will be helpful to maintain the server and the application. It will be also helpful to detect any unauthorized activity easily.

The current system already uses protection against commonly known attacks like SQL injection by using PDO to query the database, strict data validation on input and rendering to avoid XSS attacks and tokens on forms for mitigating CRSF attacks. The system has also built in protection for other attacks like RFI, LFI and etc. But there is room for improvement by adding a web application firewall (WAF) like mod security to add an extra layer of protection. Also services like cloud flare adds an extra layer of security by using its proxy to detect and block malicious activity and malicious users from visiting the web site. This minimizes the chances of a hacker trying to attack the web site.

The passwords are hashed using salts with an advance algorithm to make it useless even if it gets to bad hands, the application is secure against any data theft activity but the network might not, so if the users are on a box or network which is compromised, their credentials might get stolen and to avoid this we recommend using SSL on the site and also to use 2 step authentication. Multiple logins from the same user can be tracked and notified further to improve the security

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Resource Requirements

I have needed some Hardware things to do this project

1 GB RAM

1 CPU Core

24 GB SSD Storage

2 TB Transfer

40 Gbit Network In

125 Mbit Network Out

And also, I have needed some software to do this system efficiently

- XAMPP in windows 8

  XAMPP is the most popular PHP development environment. XAMPP is a completely free, easy to install Apache distribution containing MySQL, PHP, and Perl. The XAMPP open source package has

  been set up to be incredibly easy to install and to use.

  Sublime Text 3 in windows 8

  Sublime Text is a cross-platform text and source code editor with a Python application programming interface (API).

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
1.Proplem Definition	■■■■						
2.System Analyzing		■■■■					
3. System Designing			■■■■				
4.Implementing				■■■■			
5.System Testing					■■■■		
6.Documentation						■■■■	■■■■

References

- You tube video

  ✓ How to connect and handle database.

  ✓ How to create handle error in PHP code and MYSQL Database

- Research information

  1. www.wekipedia.Com
  2. www.tutorialpoints.com
  3. www.lynda.com

- Books
    1. Open Source Programming Technologies
    2. Guide lines for PHP beginner