COURSE MANAGEMENT SYSTEM

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ABSTRACT

In the present time, technology and the internet have become an essential and integral part of human life. Teaching methodologies have also been influenced by the impact of technology. We have developed Course Management System to utilize the scope provided by technology to create an environment suitable for the better learning experience both for teachers and students It has been observed that during the Covid-19 pandemic, students and teachers had to make a sudden shift towards online teaching methodology and this sudden change resulted in new challenges for both teachers and students like note sharing, exams and assessment of students in the online method. To solve the mentioned challenges the Course Management System provides a platform for teachers and students to communicate share notes upload assignments organize quizzes and perform a regular assessment of students.

Keywords: Communication, Study Materials, Assessment, Online Learning System.

I.   INTRODUCTION

After the covid-19 outbreak, the world is moving towards an online environment so to provide a proper platform for teachers and students we have developed a web-based platform which integrates all the modules and functionalities into a single system that can be handled by the administrative head (admin) and accessed by students and teachers. Our online course management system makes the process of teaching and learning easy and seamless for both teachers and students. They don't need to travel long distances for education. Our Online Course Management System is developed using PHP and MySQL offers them to attend regular classes from the comfort of their home. This allows the administration of student learning and teaching activities, facilitates the communication of students, teachers. In this way, the system offers the possibility of speeding up and simplifying the learning process. This project provides a platform for teachers and students to communicate, share notes, upload assignments, organize quizzes. This project helps teachers smoothly conduct their classes, assess their students on a regular period and understand their progress. This project also helps students to organize their notes on their accounts, for easy access.

Objective of Course Management System

• Step towards paperless environment.

• Step towards interactive teaching environment.

• To create a communication bridge between faculty and students.

• Continuous tracking of academic growth of student.

• To provide a platform for notes and assignment sharing

II.   METHODOLOGY

This system mainly focuses on fulfilling the requirements of students and teachers by providing them different tools. It has the possibility of managing classes of distinct groups of students. They can learn independently without interfering one another. This system permits shifting of education methodology on a digital platform by handling important aspects of educational institutes like regular assessment, handling of student's marks, attendance monitoring, evaluations, reviews and communication methods. To create the system, we use the Iterative Software Development Life Cycle (SDLC) model as software development process. It contains a list of phases which must be executed to build a computer software successfully.

First phase is requirement gathering and analysis phase. It is often known as Software Requirements Specification (SRS). It is a complete and comprehensive description of the behavior of the software developed. It defines both functional and non-functional requirements.

Second phase is design phase. It is the process of planning and problem solving for a software solution. It implicates software developers and designers to define the plan for a solution which includes several things. Those are UML diagrams such as data flow diagram, use-case diagram, entity relationship diagram.

Third phase is implementation phase which refers to the realization of design specifications into a concrete executable program, database, website, or software component through programming and deployment. In this phase the real code is written and compiled into an operational application, and where the database and text files are created.

Fourth phase is the testing phase. It is also known as verification and validation. It is a process to check that a software solution meets the original requirements and specifications. Thus, it accomplishes its intended purpose.

Fifth phase is the deployment phase which refers to deployment of software to its work environment.

Sixth phase is the maintenance phase. It is the process of modifying a software solution after delivery and deployment to refine output, correct errors, and improve performance and quality. Course Management System has been divided into three modules. Which are as follows:

A. Admin

Administrator of course management system act as a link between students and teachers to run the system smoothly and efficiently. In CMS, admin has the authority to manage all the necessary records and information related to the institution.

Tools provided in admin dashboard:

• Add a new department or delete an existing department.

• Add a new subject or delete an existing subject.

• Add a new class or delete an existing class.

• Add data of new teacher or delete data of existing teacher.

• Add data of a new student or delete data of an existing student.

• Add new admin user or delete an admin user.

• Can check user logs of the website.

• Can check activity log of the website.

B. Teacher

Teachers on Course Management System have been provided sufficient tools to manage the learning process in efficient and smooth manner.

Tools provided in teacher dashboard:

• Activate new class into his/her dedicated account.

• Can send messages to the students.

• Can add study materials (Notes).

• Can make announcements.

• Add assignments and quizzes.

C. Student

Tools provided in student dashboard:

• Can send message to teacher and other students.

• Add important study materials to their backpacks.

• Can upload response to quizzes and assignments.

III.   SYSTEM REQUIREMENTS

Hardware Requirements:

• 2 GB RAM.

• x86 64-bit CPU (Intel / AMD architecture)

• Input Devices: Mouse, Keyboard

• Output Devices: Monitor

• 10 GB HDD Storage.

Software Requirements:

• Web Browser (Chrome / Firefox / Microsoft Edge)

• Operating System: Windows 7/8/10/11

• XAMPP server

• MySQL database

• An Internet connection of 512Kbps

• Any code editor (Sublime text editor)

IV.   RESULTS

Course management system provides different tools to teachers and students for better and smooth communication, a common space to access required study material, regular assessment and evaluation of students through quizzes.
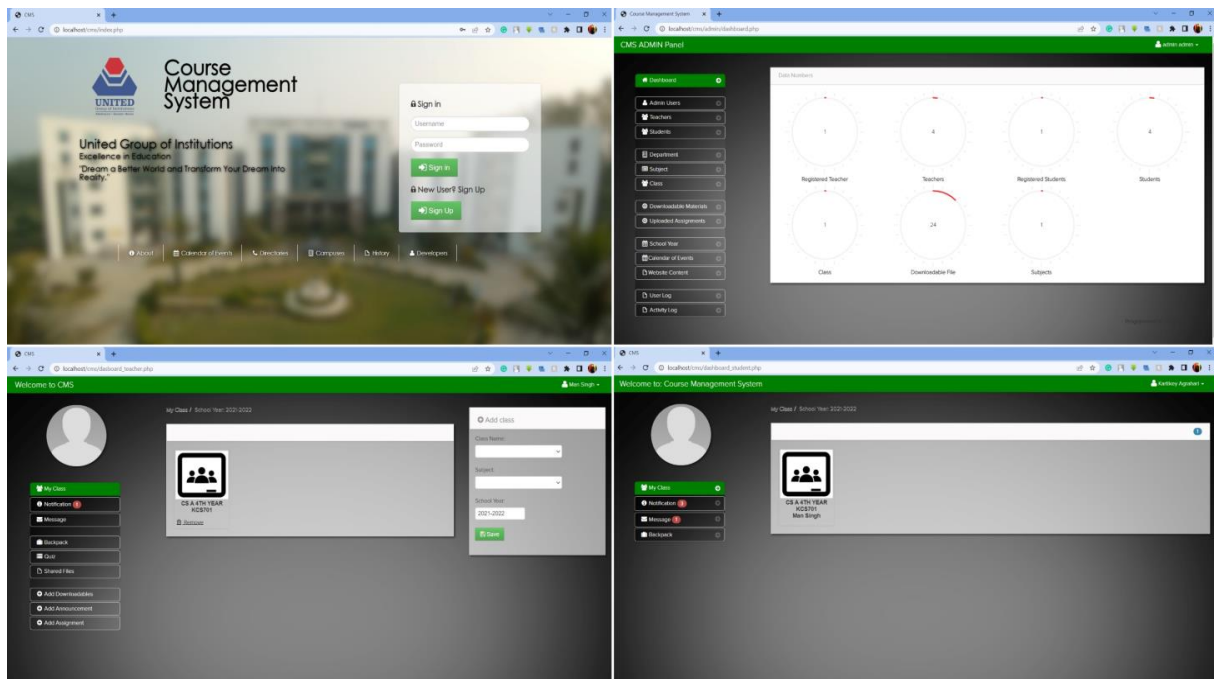

Figure: Screenshots of Website

V.   CONCLUSION

Course Management System developed in United Institute of Technology, based on the analysis and design can be concluded into several points. First, with Course Management System, students in the United Institute of Technology have no difficulty in finding study materials for their courses. It is because the material can be obtained through this Course Management System (CMS). These learning materials can be accessed on the download page. Secondly, it can measure the progress of the learning process through the features of assignments and quizzes. For further research, the Course Management System can be expanded. For example, it can have a discussion forum for users to discuss learning materials. Moreover, future researchers can add an online compiler by which students can learn and practice programming languages and teachers can conduct coding related exams on CMS. Based on feedback we have concluded that our Course Management System can

be made more efficient if it is combined together with online meeting softwares such as Zoom, Google Meet, Microsoft Teams etc. to fill the gap in creating a collaborative classroom like environment.

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