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# Mauli E-learning Unified Communication and Collaboration Platform

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**ABSTRACT:**The website aims to provide hassle-free online learning to students and a platform for faculties/professors to teach with ease. This Mauli E-learning Unified Communication and Collaboration Platform website consist of a Digital Library, a Video Conferencing Web app to conduct Online Classes, and an examination system to conduct an exam. This is a one-stop Solution for Online Learning for students and faculties/professors as well.

**KEYWORDS:**Online learning, Video Conferencing, Digital Library, Examination system.

## I. INTRODUCTION

The proposed idea is to develop a multi-functional website that can serve as an online learning platform for both students and faculty members. The website will have a user-friendly and optimized dashboard that will provide easy access to various features and tools.

The website will be designed with a well-organized and efficient database system that will allow for the smooth storage, management, and retrieval of user data. The database will be optimized to handle the large volume of data generated by the website's features and services.

Some of the essential components that will be integrated into the website include a video conferencing system, an online examination system, and a login system for both teachers and students. The video conferencing system will enable real-time interactions between teachers and students, facilitating online classes, discussions, and collaborative learning.

The online examination system will allow teachers to create and administer online tests, quizzes, and assignments, which students can take remotely. This system will also provide automated grading and reporting, making it easier for teachers to assess and evaluate student performance.

The teacher and student login system will enable users to create their profiles, which will help in managing their personal and academic information. This system will also provide users with personalized access to the website's features and services based on their roles.

## II. LITERATURE SURVEY

"A Survey of Video Conferencing Systems" by ManasKhatua and KrishnenduKundu (International Journal of Computer Applications, 2012). This paper provides an overview of various video conferencing systems and their features, including Skype, Google Hangouts, Adobe Connect, and WebEx.

Video Conferencing: A Review of the Literature and Guidelines for Its Use" by Jason Harley, Maribeth Gandy, and Kevin A. Guidry (Journal of Distance Education, 2010). This paper reviews the literature on video conferencing and provides guidelines for its effective use in distance education.

"A Comparative Study of Learning Management Systems: Moodle, Blackboard, Google Classroom" by B. T. Ngu and T. N. Pham (Journal of Education and Training Studies, 2019). This paper compares three popular learning management systems, including Google Classroom, in terms of their features, usability, and pedagogical effectiveness for online teaching and learning.

"Google Classroom and Its Impact on Instructional Technology: A Case Study" by E. C. Anazia and J. T. Ezeudu (Journal of Education and Practice, 2016). This paper presents a case study on the use of Google Classroom in a Nigerian university, which found that the system positively impacted instructional technology and student engagement.

"Design and Development of Online Examination System" by N. V. Karunakaran and G. Raju (International Journal of Computer Applications, 2012). This paper presents the design and development of an online examination system that supports question bank management, exam scheduling, and student assessment.

"An Analysis of Online Examination Systems: Benefits and Limitations" by S. S. Akhtar, M. A. Sheikh, and N. Ahmed (International Journal of Computer Applications, 2014). This paper analyzes the benefits and limitations of online examination systems, including their reliability, security, and user-friendliness.

### III. METHODOLOGY

The major components of the Platform are a Video Conferencing system, Online Examination, and Digital Library.

#### 1. Video Conferencing system

We will be developed a video conferencing system based on a browser/server framework that carries out several operations including,

- i. Visiting and instant messaging: Using this client can send messages to other clients.
- ii. Document sharing: Using this users can transfer and share records with different individuals.
- iii. Video and Audio Conferencing: Here clients can speak with live video and audio.
- iv. Poll: This Function will let the host take a poll.
- v. White Board: This whiteboard module is the same as the paint program in windows where one can draw pictures, write and explain the concept.
- vi. Recording: In Recording Host Can Easily Download Recordings automatically to the local system while Recording stop.
- vii. Screen Sharing: In This Host Can Easily Share their Screen.
- viii. Raise hand: Using this users Can Easily Raise their hands up and down.

#### 2. Online Examination

We will be developing an online examination system based on a Browser/Server framework that carries out the examination and auto-grading for objective questions and operating questions.

#### 3. Digital Library .

A digital library is a library in which collections are stored in digital formats (as opposed to print, microform, or other media) and accessible by computers. The content may be stored locally, or accessed remotely.

### IV. CONCLUSION

In underdeveloped and developing countries, e-learning raises the level of education, literacy, and economic development. This is especially true for countries where technical education is expensive, opportunities are limited, and economic disparities exist. Online learning in the corporate world also has a substantial impact on society. Why? Because today's employees will be the innovators and trainers of our future workforce. By understanding the positive impacts of digital learning, companies can cater to the next wave of employees, offering them flexible and relevant learning experiences.



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- [9] Digital Libraries: A Beginner's Guide - This guide provides an introduction to digital libraries, including their history, types, and benefits. It also includes a list of digital library resources and tools. Link: <https://www.lib.ncsu.edu/guides/digital-libraries>.





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