

VIRTUAL CLASSROOM

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Abstract—A Virtual classroom is an Software tool that uses the internet to connect distant learners which is similar to face-to-face interaction. The main intention is about the challenges that a person has encounter in the virtual classroom setting. Prior to the arrival of Covid-19 in the 21st century, the finest and most efficient method of Learning was viewed as taking place in person, with the instructor and students interacting in real time. The techniques of teaching and learning have undergone significant changes due to technological advancements in the last few decades, particularly in the area of computer-aided learning. In the field of education, the World Wide Web has been extremely important for the storing and dissemination of knowledge. Even so, The pandemic had left us all confused more by circumstances, gave us all tremendously tech-savvy and strengthened our passion for it and willingness to embrace technology. Both instructors and pupils had the exact same experience. The trainer must deliver the teaching material in a given place at a fixed time in a traditional classroom setting. So it limits the instructor as well as the pupil in regards of where and when to teach. Although network learning has grown increasingly widespread in almost all educational settings, it really is predicted to emerge as the dominant method of instruction in the coming days.

Keywords—World Wide Web.

I. INTRODUCTION

Any nation's economic development and societal transformation are thought to be primarily influenced by its educational system. Education is becoming more accessible day by day. As network computers, the Internet, and telecommunications technology have become more prevalent, e-Learning has gained popularity as a useful instrument for education and training. Effective teacher-student dialogue has always been a priority in the classroom. The layout of the classrooms encourages students to remain quietly and pay close attention to the instructors lessons. e-Learning is now widely known as a supportive tool for education and training. The world has been fighting

the novel coronavirus since the beginning of 2020, and the outbreak has isolated everything, including educational institutions. In some developing nations, formal education is still primarily provided through conventional methods.

Teachers and students frequently experiment with new approaches to knowledge construction as a result of the substantial development of e-learning. Understanding can grow in a supportive setting where students can confide in their instructors and discuss their fears and uncertainties. Due to the Covid19 outbreak, online instruction has been adopted in many nations as a method of pupil instruction and learning. The area of education that places the most emphasis on using technology to provide instruction to pupils who are not physically present to receive it does so. Since the introduction of personal computers, laptops, and the internet, each discipline had attempted to integrate audio visual methods of teaching and learning in their various domains. In every corner of the world, the change from a depressed economy to a new knowledge-based economy is right now underway. To carry out online learning as efficiently as possible, we must determine the proper digital networks. Due to the rapid expansion of internet-dependent learning in virtually all schools and colleges, this area of education will be highly popular in the future days and will soon replace the conventional method of education. Geographic location is a key factor in the continuous development and adoption of remote learning, which is the result of certain circumstances. What a pupil learns, how well they achieve, and how much of an impact does non-traditional learning have on an individual? The benefits, drawbacks, and efficacy of online courses have all been the subject of numerous studies. During the ongoing discussion about online courses,

COVID-19 came to light and completely altered the situation. The resources of several schools are now more severely limited due to the population growth and rising demand for admission into schools in every area of the globe.

II. LITERATURE REVIEW

(Paul de Lange, 2010) showed that the use of virtual learning tools in educational settings may improve the students' learning outcomes through boosting motivation to learn the subject and overall overall satisfaction with both the learning experience. The study was conducted on undergraduate accounting students in Australia. The epidemic has highlighted digital learning as a new educational approach to education, and how these courses are delivered to students has a bearing on both their challenges and experiences. Virtual learning, remote learning, and e-learning have all been the subject of numerous studies. Sometimes, these phrases are used equally. E-learning, as defined by this term, is learning that utilizes a network for distribution, engagement, or facilitation. Dispersed learning and online learning are both included in this form of education. The focus of this study was on how internet access is a significant problem for pupils and interferes with learning. In their analysis of just how technology is utilized to deliver instruction, Bryant and Hunton (2000) found there are at least five categories into which general education research can really be separated: evaluation research, media comparison studies, intra-medium studies, aptitude-treatment interaction studies, and alternative research designs. Over a computer network, both web-based training and computer-based training (CBT) are made publicly available. (WBT). It could be instructor-led, computer-based, sequential, asynchronous, or a mix of the aforementioned. While Chisimba was accepted and put into use through collaboration with development partners, Wedusoft was specially created by a university staff member. The institution is currently using Claroline. Reeves (1997) noted that a large number of schools now distribute study materials in digital copy online. Accounting-related faculties have also begun playing with new VLE tools and integrating them in conventional settings. To make the move from traditional classes to online classes more widely available and accessible, the university in this here it G-suite as a mechanism of technological assistance for the delivery of online instruction using Gmail, Google Forms, Hangouts, Google Classroom, Calendar, and Drive. Web - based learning takes a lot of self and time management, and improved student with their online education is influenced by that of the course's design. Other obstacles that students faced were fixing problems on their own. In a review article, Butler and Mautz (1996) noted that the majority of the prior research in this area had been detailed in nature and had focused solely on the alleged advantages of integrating VLE into accounting education. In terms of its historical evolution, architectural design, system implementation, and accessibility of e-learning tools for individuals with disabilities, prior virtual classroom research will be covered in this section. The history of distance learning, common issues, the role of the federal government, and four key areas for improvement—curriculum change, new approaches developed, organisational structure changes, and participant roles and activities in both business and

academic distance-learning environments—are all covered in this article. (Brent, 2004) The engagement of students in online classrooms must be encouraged in order to guarantee that they have a positive educational experience. The architecture and a description of the system's components are presented, along with techniques and suggestions for implementing the suggested system. According to Richardson (2000), a student's motivation to learn the material and enthusiasm for it have a big influence on the extent to which they can comprehend the data supplied and taught through VLE material.

III. SYSTEM DESIGN AND MODELLING

Figure 1: User module Data Flow Diagram

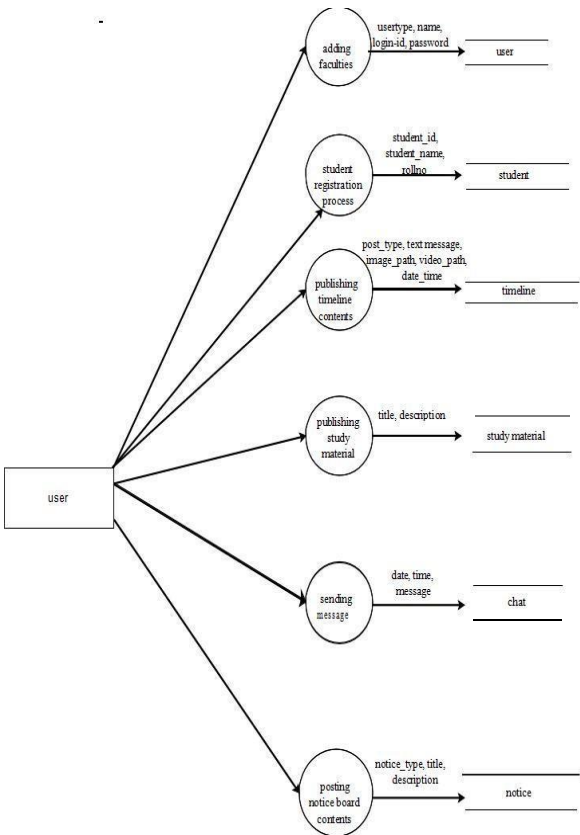
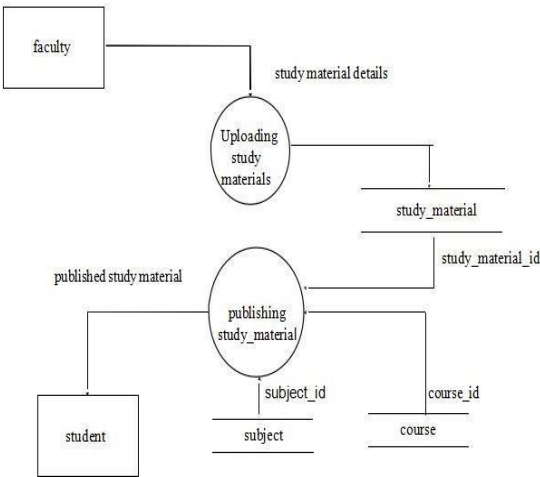


Figure 2: Lecture Module Data Flow Diagram



V.CONCLUSION AND FUTURE WORK

It has been noted that students frequently participate in these online classes. Virtual classes were effective and interesting for both the academic and practical examinations, according to the students. Students think that the material in the video lectures was well-organized, understandable, and given in a logical sequence. The primary justification for using this technique of teaching is the student's convenience. This makes it feasible to reach students who are spread throughout the globe. The learner will have more time to study because it saves time and money. They can also watch the previously recorded videos and request revisions if they'd like. It has been found that students are very engaged in these online classes. According to the students, attending online classes helped them get ready for both academic and practical examinations. According to the pupils, the material in the video classes was properly organized, understandable, and given in a logical sequence. The primary argument in favor of using this teaching strategy is the learner's ease. As a consequence, it is feasible to communicate with students who are dispersed throughout the globe. The time and effort advantages mean that the learner will have more chances to study. The user has the option to view and modify the recorded movies. The future potential of this area, based on the concept of user experience, is to develop more beneficial and user-friendly apps that will help users across various platforms.

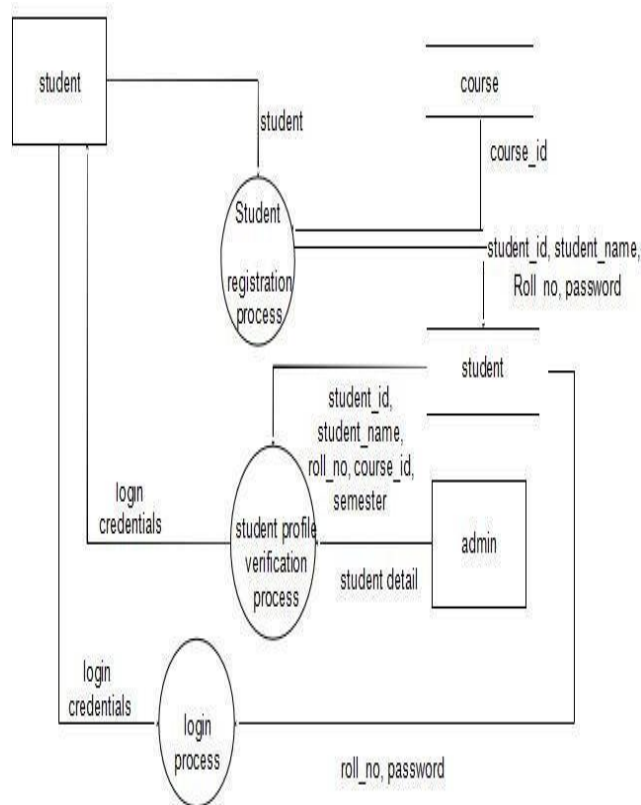


Figure 3. Student module Data flow diagram

IV.SYSTEM IMPLEMENTATION

Implementation is one of the stages of software development where the designed algorithm or technical specification is implemented using the programming language. The programmer must develop the software within the preferred duration. The developed software must be intuitive and easily understood by any user even if the user has less programming knowledge.

In implementation of this system consist of the following modules namely,

1. **Admin Module:**It provides many tools and shortcuts to manage your entire website or web application. With the help of the administration dashboard, you and your employees can analyze the performance of a website or web application. The administration dashboard provides real-time information to the user from all data collected by the website or software.
2. **Student Module:**The registration panel has six fields user name, course, semester, USN password and confirm password. There is also a sign in button. After entering sign up credentials user can click on the login. Student registration page allows him to add their basic data to the web application.
3. **Staff Module:**The staff login page allows the different types of users to login to the web application. This page validates the user and based on the user type it returns the appropriate page. For admin login it returns the admin home page. For staff module it checks the concerned staff and returns that staff home page.

VI.REFERENCES

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