

VIRTUAL CAMPUS CONNECTION FOR E-LEARNING

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Abstract— Education over the Internet is the latest concept in spreading education to everyone. The conveniences of learning on line are numerous. Students and those interested in learning over the computer and can choose their own timing that is convenient to them and the classes can be taken at their own place.

This Virtual Classroom System is designed in such a way that the student i.e. Client can communicate with the server when it is logged on and the client can retrieve the text files or required files from the server by issuing the request. Clients have his or her own login name and password, which help them to get connected with the server. Here the students are provided with the facility of attending the class of their choice and can choose the faculty according to their wish.

Keywords— Live streaming, Chat window, Online Test

I. INTRODUCTION

A virtual classroom is an online learning environment. The environment can be web-based and accessed through a portal or software-based & require downloadable executable file. This project aims at putting together an integrate Learning environment for a university student. This will also be used by distance education programs offered by institutes, in order to enable students to avail of the academic facilities from any computer connected to the internet.

A. Virtual System

Virtual Classroom lets you collaborate in real time during online delivery of classes and training sessions. With our powerful platform's features and range of useful tools, you can: Increase student engagement with real-time audio-video communication, text chats, and

advanced, interactive whiteboards. Integrate smoothly with your existing website or LMS (e.g., Moodle, Blackboard, Sakai) using our APIs & Plugins. Deliver live classes on-the-go from any mobile device using WizIQ Android and iOS apps. Manage your classes and students easily with handy features like Attendance Reporting, Recording, and Notifications.

Reuse lectures recorded by using WizIQ's recording and secure content facility. Access WizIQ from any internet browser, without downloading any software. In this project, we have designed a software which will serve all engineering colleges' students and faculty member. Some of students are unable to attend class due to some reason as health problem, attending conference to somewhere. Some of students are unable to study due to financial problem. They do distance learning problem. For that, they regularly view lectures, view question paper, view examination schedule. When we talk about regular students that this project will help them in checking his attendance, viewing faculty achievements, chatting with some other student, viewing news and notices about their curriculum.

B. Live Lectures

Live Virtual Classroom (LVC) environment that mixed onsite and online learners. Data were collected from analysis of recorded LVC sessions and post-course interviews with students in two different offerings of a graduate instructional design course that used Adobe Connect as a live virtual classroom. Students could choose whether to participate onsite in a computer classroom or "live "online using Connect. Over the course of both semesters students increasingly chose to participate online and, overall, students chose to participate online (57%) more than onsite (43%). However, some

students—especially international students—preferred to participate onsite even though it was less convenient and also meant that they were more likely to be “called on” for verbal responses. Analysis of LVC recordings and post-course interviews showed that text interaction in which students asked questions or made comments in the LVC chat box during the instructor’s lectures was a preferred mode of interaction for students when they were participating both online and onsite. The emergent pedagogical strategy of integrated text interaction during lecture suggests a benefit of synchronous online learning. In the recent era of globalization, technological advancement has increased dramatically in every sphere including mainstream education. Profound investments in technology in this decade have given rise to a worldwide explosion of information. Many educational institutions have been mystified by this information chaos. They are driven by the goal to use newly found access to global data communication. This step will increase enrolment and will award a vast range of degrees through massive investments in distance education programs. There has been much talk among educators that these acts begin to modify the students’ worth to the academic world, as the students begin to assume both the tangible and intangible characteristics associated with those of a “Customer” as opposed to the characteristics of a student. Marketing strategies abound that beseech the “students-customer” to take advantage of “fast, universal access”, “earn a degree in a short period of time”, and other creative approaches that guarantee satisfaction and quick delivery of the degree-of-choice.

As shown in Table 1, more learners attended class online than onsite in both the Spring 2011 and Spring 2012 offerings of the course.

C. Virtual Account

Centralized database of open-source simulations
 Ability for simulations to be run in a web browser. Student and teacher profiles .Possible grade book and quiz functions .Security of the login process. Will run in any web browser. Will mostly be accessed during school hours, but expect 24 hour access

Server will be run on Google Apps Engine. MySQL will be needed for the database of simulations. AJAX needed for some browser functions .HTML needed for user interface
 Separate user name and password is provided and will allow each user to have unique view when logged in. Separate teacher and student accounts are also provided. Each account requires different features teachers require functions for adding students and searching simulations. Students require functions that allow them to view simulations and answer questions about them. This Virtual Classroom System is available anytime without any restriction that means we can access 24 hours a day. It engages students in a rich learning experience. Data transfer rate optimization matches user connection speeds. it is real time collaboration between a faculty and the student. It away faculties in awesome conveniences. We can share documents, application, streaming videos and many more. Developing a virtual classroom system (VCS) to promote a greater count of students to splurge into the field of Education. It integrates the benefits of a physical classroom with the convenience of a ‘no-physical-bar’ virtual learning environment ,minus the commuting hazards and expenses. It will usher in the immense flexibility and sophistication in the existing learning platform structures, with the perfect blend of synchronous and asynchronous interaction. It provides a means of collaborative learning for the students.

Table 1

Class Attendance (Total and average number of students in class sessions)

	Online class attendance	Onsite class attendance
Course Spring semester 2011	97 (54%) On average 7.5 learners attending 13 class sessions	82 (46%) On average 6.3 learners attending 13 class sessions
Course Spring semester 2012	71 (61%) On average 5.9 learners attending 12 class sessions	45 (39%) On average 3.8 learners attending 12 class sessions
Total	168 (57%) On average 6.7 learners attending 25 class sessions	127 (43%) On average 5.1 learners attending 25 class sessions

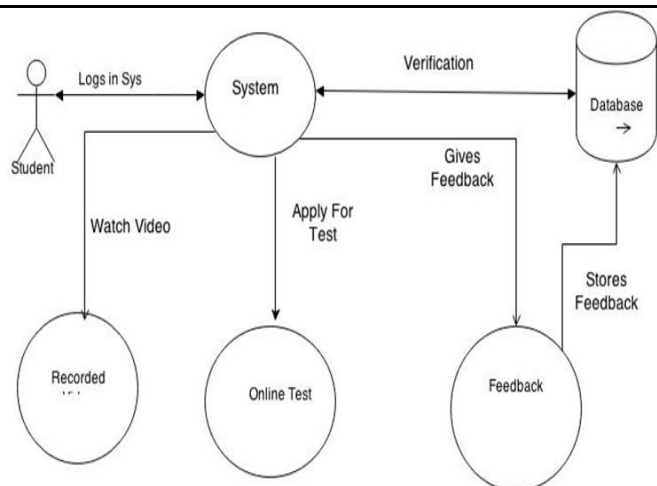


Fig.2 System architecture of Virtual Campus

II.OBJECTIVE

The objectives of a virtual campus are to improve access to advanced educational experiences by allowing students and teachers to participate in remote learning communities using personal computers and to improve the quality and effectiveness of education by using the computer to support a collaborative learning process. The explosion of the knowledge age has changed the context of what is learnt and how it is learnt.

III.PREVIOUS SYSTEM

Here the existing system is a manual classroom system. We need to allocate a room physically to conduct classroom sessions. Both faculty and student need to attend the classes physically. We also need to provide some infrastructure for the classroom. Faculty needs to take the daily attendance manually and store it inside a book. If a student wants asks some doubt then entire class will be disturbed. When the faculty is giving some notes the candidate has to store the notes manually in a book. Since doing all these manually is a tedious process we need to provide online learning channel in the form of interactive classroom

IV. PROPOSED SYSTEM

1.User Friendly: - The proposed system is user friendly because the retrieval and storing of data is fast and data is maintained efficiently. Moreover the graphical user interface is provided in the proposed system, which provides user to deal with the system very easily.

2. Very Useful for E learning Student: those students who are very poor in economic or those who work in daytime can learn their course through internet from anywhere. There is no need to present physically that's why name of the paper is virtual classroom system and there is no restriction (NR).

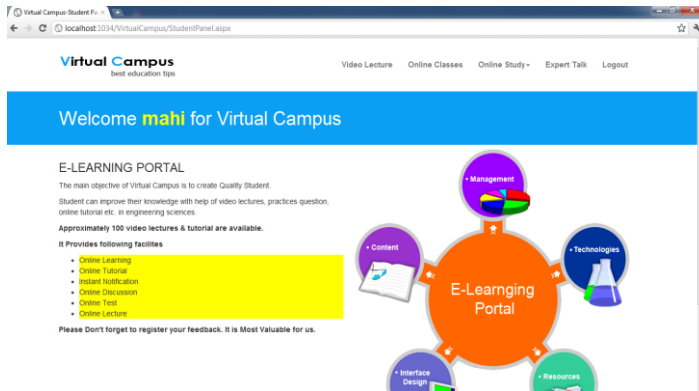
3. Reports are easily generated: Reports can be easily generated in the proposed system so user can generate the report as per the requirement (monthly) or in the middle of the session. User can give the notice to the students so he/she become regular.

4. Very less paper work: The proposed system requires very less paper work. All the data is feted into the computer immediately and reports can be generated through computers. Moreover work becomes very easy because there is no need to keep data on papers.

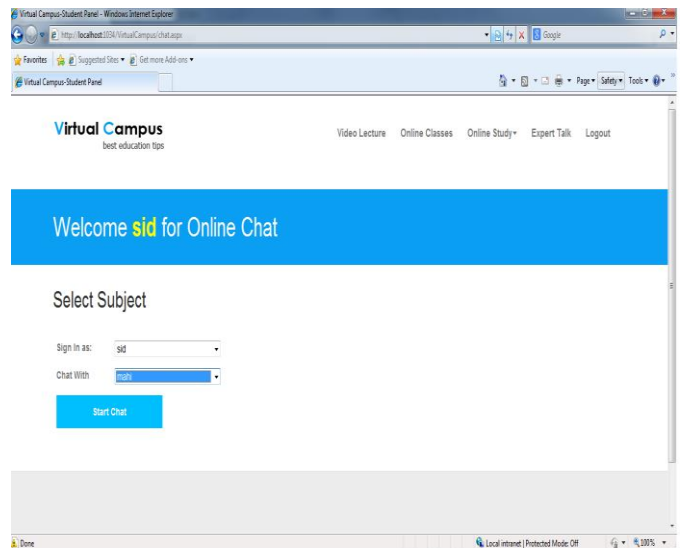
IMPLEMENTATION

Implementation is the carrying out, execution, or practice of a plan, a method, or any design for doing something. As such, implementation is the action that must follow any preliminary thinking in order for something to actually happen. In an information technology context, implementation encompasses all the processes involved in getting new software or hardware operating properly in its environment, including installation, [configuration](#), running, testing, and making necessary changes. The word deployment is sometimes used to mean the same thing. The below screenshots shows the working and working of the project.

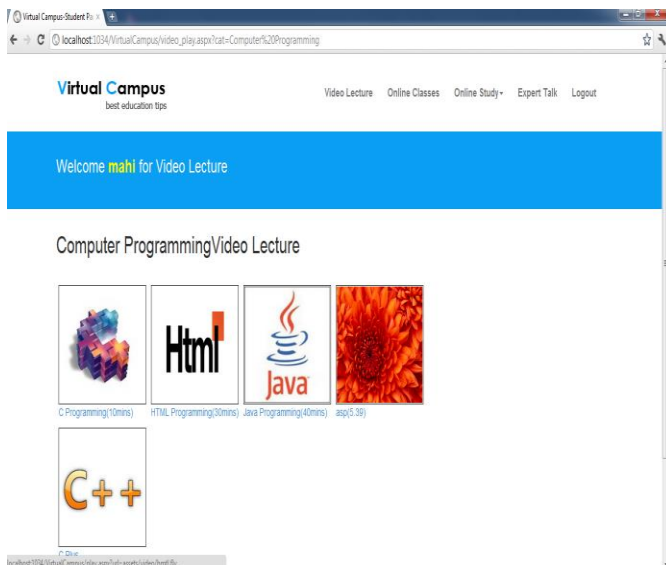
This window is for admin to add the test questions along with a answers. After adding test paper student will be able to give test.



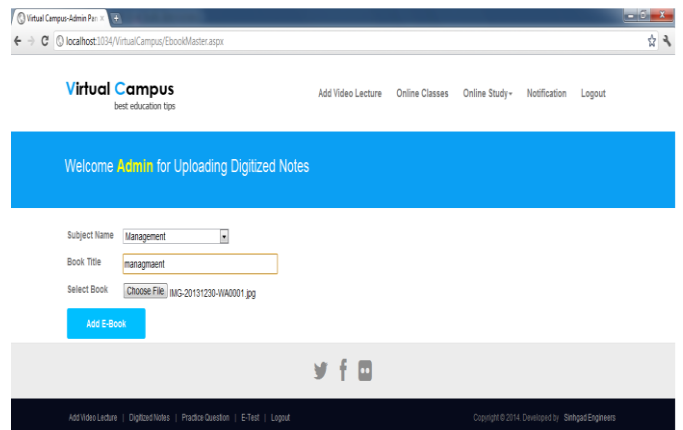
This module is for student panel which specifies to select his requirements. This gives the student space to act.



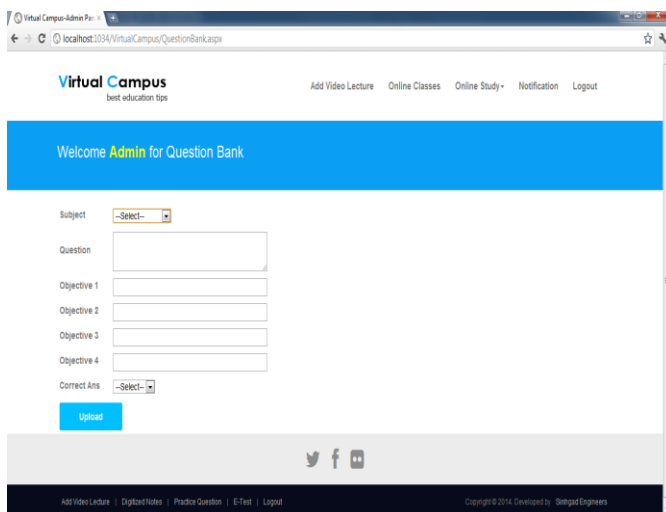
This window provides student to download Ebooks of the subjects.



This module is for recorded lectures that had been conducted by staff. In this panel gives student subject wise videos.



This is admin window for adding Ebooks according to the subject



V. APPLICATIONS

Virtual discussions can have beneficial uses in education. For instance, teachers responsible for numeracy in college, or heads of mathematics departments can enter discussion rooms with colleagues across the country and indeed, across the world, whom they could never meet. In the discussion room they can share teaching ideas and develop materials without ever straying from the home or classroom.

In this way discussion rooms are communication tools that can ease the burden on teachers by providing a virtual support group of colleagues. They can also be used to enable pupils to discuss curriculum material. In the less populated areas of the world; parts of Australia, or Argyll and Bute, for instance; these virtual college are the only way in which a reasonably sized group of pupils of a similar age can be convened to share ideas. In this way discussion rooms are used as curriculum tools. Some discussion rooms are virtual bars; some are virtual seminars; some virtual business meetings.

A. ADVANTAGES

1. Providing Virtual class room environment which doesn't require any room physically.
2. Provides effective communication channel between the faculty and the student
3. Faculty can view the list of attendants in the class.
4. Student has the facility to store all the notes issued by the faculty
5. Transportation cost is reduced.
6. Students building up a library of digital photographs of the locality

B. FUTURE SCOPE

It is not possible to develop a system that makes all the requirements of the user. User requirements keep changing as the system is being used. Some of the future enhancements that can be done to this system are:

As the technology emerges, it is possible to upgrade the system. Security can be improved using emerging technologies. Sub admin module can be added. An in-built web browser can be added

VI. CONCLUSION

This paper provides E-learning education anytime anywhere which provides up-dated education for those who needs distance education. This also reduces paper work and transportation cost. This Education over the internet is the latest concept in spreading education to everyone

Hence In this paper:

- ☑ Reduction of entry work.
- ☑ Easy retrieval of information
- ☑ Reduced errors due to human intervention
- ☑ User friendly screens to enter the data
- ☑ Portable and flexible for further enhance.
- ☑ Web enabled.

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