

E-Learning Application

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Abstract

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Keywords: Digital Revolution, Human Resource Management

INTRODUCTION

Background

In 1999, the phrase “E-Learning” was mentioned for the first time in a professional context by Elliott

Masieduring the TechLearn conference at Disneyworld. However, the very first attempts at e-learning can be traced back to 1924, when Ohio State University professor Sidney Pressey created the very

first electronic learning machine, the Automatic Teacher. Perhaps the most significant invention in the history of online learning technology is the PLATO. The PLATO is a computer system designed by Donald L. Bitzer in 1960, and it was ground-breaking for its time. Two decades before the invention of the World Wide Web, the PLATO network could host thousands of users at its peak, and much of the greatest instructional software of the century across many educational disciplines was created on PLATO. The PLATO terminals were very expensive at \$5000-\$7000 each, but they were worth every penny. It must be noted, though, that not all inventions in the field of online learning and e-learning were as praised as the PLATO, which went through numerous successful re-releases and four generations. The success stories tend to be highlighted more often than the failures, but it's just as important to highlight those innovations which failed to reach the masses. The earliest inventions in educational technology may have been clumsy and basic by today's standards, but they served a crucial role in the development of the history of e-learning.

Problem Statement: With the advent in technology and with the perpetual increase in the strength of the students and the

number of departments in the educational institutions, it is laborious to exchange the study materials between the students and the faculties. The main objective of the E-Learning is to help the students get over the traditional methods of learning and make them accustomed to the internet where the notes for their respective subjects are easily available. It provides an automation procedure of studying the notes online. The implementation of this project helps both the students and the teachers. The teachers can upload their notes on to the website by using their unique ID and the students can gain access to these notes by searching for the name of the file under their respective department. This project not only helps to facilitate easier access to notes for the students but also helps cutting down on expenditure for the universities as well. Students and Universities alike spend a considerable amount of money on printing costs which can be prevented.

Objective

E-Learning represents an innovative shift in the field of learning, providing rapid access to specific knowledge and information. It offers online instruction that can be delivered anytime and anywhere through a wide range of electronic learning solutions such as Web-

based courseware, online discussion groups, live virtual classes, video and audio streaming, Web chat, online simulations, and virtual mentoring. E-Learning enables organizations to transcend distance and other organizational gaps by providing a cohesive virtual learning environment. Companies must educate and train vendors, employees, partners, and clients to stay competitive and E-Learning can provide such just-in-time training in a costeffective way. Developing and deploying effective E-Learning programs may require products and services supplied by a variety of vendors, leaving one to connect the dots. One way to start is to define the goals of the desired learning solution. The sub-objective of this project includes:

- 1) To perform task analysis
- 2) To perform training needs analysis
- 3) To review existing capabilities
- 4) To determine expectations

SCOPE:

1. The main purpose of education is to achieve upward mobility. Online courses certification programs have been able to provide inexpensive education to the masses and also save time, energy and money. 2. Electronic-learning through certified online courses provides a wide

range of courses that caters to the core interests of the student, thus creating a fertile arena for future advancement. 3. There is a misplaced notion, that employers prefer students with traditional brick and mortar college degrees. On the contrary, corporate organizations in India are recognizing the high skill levels of students who have undergone online courses certification programs from highly acclaimed educational institutions.

Limitation of Project

1. Lacks social interaction E-learning is one of the causes of social isolation because you don't see your teachers and classmates face-toface anymore. Interaction is very limited to none. 2. Inaccessible to others Consider yourself lucky if you're located in an area where the internet connection is fast and stable. Unfortunately, some have very limited access to the internet. They have to go to internet cafes or use public Wi-Fis which is very inconvenient. 3. Cheating is unavoidable E-learning includes assessment, just like in a regular classroom setting. However, there are no teachers or proctors to watch over you during exams. It's easy for online students to share answers knowing there's nobody watching. 4. Requires self-motivation and proper time management skills You're

basically on your own in e-learning. You have to motivate yourself to study hard, take down notes, and gather more information. You should also manage your time well by learning how to juggle studying while doing other things like household chores or earning money part-time.

LITERATURE SURVEY

Despite the enormous growth of e-learning in education and its perceived benefits, the efficiency of such tools will not be fully utilized if the users inclined to not accept and use the system. Therefore, the successful implementation of e-learning tools depends on whether or not the students are willing to adopt and accept the technology. Thus, it has become imperative for practitioners and policy makers to understand the factors affecting the user acceptance of web-based learning systems in order to enhance the students' learning experience (Tarhini et al., 2014a). However, recent studies have shown that elearning implementation is not simply a technological solution, but also a process of many different factors such as social factors and individual factors, organizational such as facilitating conditions in addition to behavioural and cultural factors. Such major factors play an important role in how an information

technology is developed and used. Fischer et al studied how proceedings of scientific conferences can be used for trend studies in the field of e-learning. They examined the abstracts of 427 scientific articles of leading German-speaking E-Learning conferences Society for Media in Science and E-Learning-Conferences of the Society for Computer science. – published from 2007 to 2013. The study was conducted at German Ospeaking conferences and, thus, reflects the situation in Germany, Switzerland and Austria. Fischer et al. made an important contribution to the diffusion of digital media in higher education. The researchers found that the detailed analysis of the frequency distribution over the seven years reflects the intensity of scientific discussion towards e-learning trends, and conclusions about the didactical or technical potentials of innovations can be introduced. Specifically, they found the development potential of learning management, mobile learning, virtual worlds, e-portfolio, social media and Massive Open Online Courses are crucial for e-learning in German higher education. Moravec et al. (2015) showed how e-learning tools impact students' achievement. The study was attended by nearly 2000 students. According to Moravec et al. (2015), the study compares

the results of questions from the area of law where the tool was provided in a pilot version with the results of questions, where the e-learning tool was not provided. The researchers found that the e-learning tools have affected the students' results. Nevertheless, the belief of the e-learning tool may possibly have a negative effect on students who will depend on given materials was disproved.

METHODOLOGY

The proposed methodology for E Learning Application: The idea of this methodology is developing an e-Learning system that favours the competitive position of the organization that uses it and be adaptable to suit the student/employee's needs. It refers to the mode and manner in which they produce the content that will be used in training and how to determine the

technological platforms to use the organization Analysis: This methodology creates construct elearning systems that their content must be defined before because it needs to define the structure of the learning model. Content management is not based on any eLearning standard that define how these contents and formation must be presented to users to be studied. This methodology just works with a determine type formats of learning contents, and the user interface is not separated from this content, where to create an e-Learning system with this methodology all, contents and its presentation are linked together. It presents a high cost to administrations and university to work with it, and users have to be professional to work with these system.

Design and Implementation

Project Flow Chart:

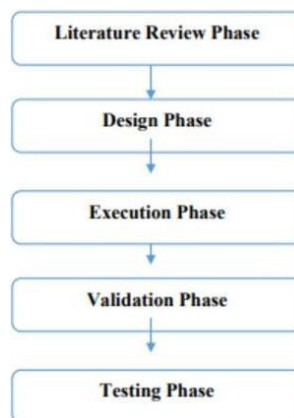


Fig-Project flow chart

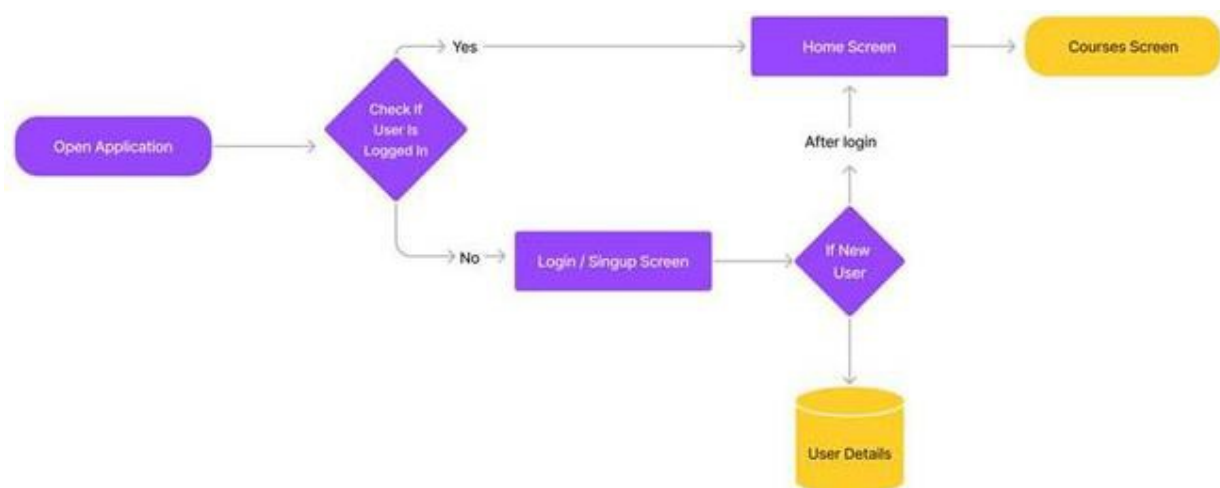
The project undergoes the stages as shown in Figure 3.1. In the first stage, extensive study on the existing research paper which is related to the scope of the project is thoroughly done in the literature review phase. The next phase is design phase, whereby, based on the data gathered during literature review phase, the possible method and procedure for project implementation is specified. After taking consideration of design feasibility such as functionality, cost, hardware specification and etc., the prototype is built based on the design outlined. Each of the component are tested and later test the functionality of the prototype.

Implementation:

we used a multi-layer architecture and built a planner and developed it to create a more flexible, userfriendly interactive platform. The basic function of using

multiple N-Tier architectures is to design three projects in one integrated project. These three projects are isolated from each other. It is possible to use any programming language. These projects are (Presentation Layer, Business Logic Layer, Data Access Layer). In the Presentation Layer or User Interface layer, the design of pages such as (ASP.net, java scripts, CSS, etc.) has been done. In Business Logic Layer we created the class library (DLL), so it is possible to create a web service inside this layer. In Data Access Layer (DAL)we also created the class library (DLL). It is implemented as a separate class library project, where all the basic data source code is located, such as creating a database connection and issuing database commands such as (SELECT- INSERT- UPDATE- DELETE).

Block Diagram



Software Requirement:

1. Android Studio
2. Programming language JAVA
3. Xampp
4. Cloud

Hardware Requirements

1. Laptop
2. Computer
3. Smartphone

CONCLUSION

In conclusion, e-learning applications have become an essential tool for education and training in the digital age. With the advent of technology, the traditional classroom model of education has evolved to embrace online learning through the use of e-learning applications.

E-learning applications have a number of advantages over traditional classroom learning. They are flexible, accessible, and convenient, enabling learners to study at their own pace and on their own time. E-learning also provides a wider range of learning resources, such as videos, interactive modules, and quizzes, which enhance the learning experience.

Moreover, e-learning applications are cost-effective and efficient, reducing the need for physical infrastructure and saving time and money. They also enable learners from

different parts of the world to connect and collaborate, creating a global community of learners

However, e-learning applications also have their limitations. They require access to technology and a stable internet connection, which may not be available to all learners. They also require a high level of self-discipline and motivation, as learners must take responsibility for their own learning.

In conclusion, e-learning applications are an excellent tool for education and training, offering a flexible, convenient, and cost-effective approach to learning. However, they should be used in conjunction with traditional classroom learning, and the potential limitations should be considered and addressed to ensure that all learners have access to quality education.

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