

PROJECT REPORT ON

**The Core Learning: An Extension for Education**

SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE

AWARD

OF

DIPLOMA

IN

COMPUTER ENGINEERING

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**2021-22**

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(An Autonomous Institute of Government of Maharashtra)



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Of term Even 2021 of Computer Engineering department students have submitted their Project report on **The Core Learning: An Extension for Education**. During academic session 2021-22 as a part of project work prescribed by Government Polytechnic, Nagpur for the partial fulfillment of requirement in Computer Engineering, Sixth Semester. The project work is record of students own work is completely satisfactory.

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**SIGNATURE OF**  
**INTERNAL EXAMINER**

**SIGNATURE OF**  
**EXTERNAL EXAMINER**

**DATE:**

## **CANDIDATE'S DECLARATION**

We hereby certify that the work which is being presented in the project report entitled **The Core Learning: An Extension for Education** by us in partial fulfillment of requirement for award of diploma in Computer Engineering, Government Polytechnic submitted to department of Computer Engineering is record of our own work carried out during Academic session 2021-22 (Even-2021) guided by **Mrs. D.S. Nalinde**.

### **Signature and Name of students**

**Disha Kokardekar**

**Manjiri Dangre**

**Tajshree Gawali**

**Vaidehi Shende**

**Miheera Jadhav**

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### **Signature and Name of the students**

**Disha Kokardekar**

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## ABSTRACT

*The Core Learning is an E-learning Website which is purposely made for the convenience of students. E-learning fulfills the thirst of knowledge and offers online content that can be delivered for the learner at anywhere, anytime and any age through a wide range of e-learning solution while compared with traditional learning system. It also provides the rapid access to specific knowledge and information. E-learning is an integral part of smart education. There are many e-learning systems that are widely available to educational institutions. The challenge is to easily integrate the e-learning system into a smart educational environment based on the requirements of the users. E-learning is the use of digital tools for learning. Learning management systems and distance education are among the most prevalent tools. However, hybrid experiences and collaborations are changing the E-learning landscape. Recent developments include the advent of social networking and online learning communities, the ubiquitous presence of smart phones, and an increased recognition of the potential for computer games to transform learning.*

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# **CHAPTER – 1**

## **INTRODUCTION**

## **INTRODUCTION**

E-learning is a fast and efficient way of providing and sharing knowledge with learners in different parts of the world. “E-learning uses the Internet or other digital content for learning and education activities, that takes full advantage of modern educational technology to provide a new mechanism for communication and learning environment rich in resources to achieve a new way of learning”. E-Learning exploits interactive technologies and communication systems to improve the learning experience. It has the potential to transform the way we teach and learn across the board. It can raise standards, and widen participation in lifelong learning. It cannot replace teachers and lecturers, but alongside existing methods it can enhance the quality and reach of their teaching, and reduce the time spent on administration. It can enable every learner to achieve his or her potential, and help to build an educational workforce empowered to change. It makes possible a truly ambitious education system for a future learning society.

This project is concerned with the analysis, design, development, implementation and evaluation of an e-learning website to provide a user friendly environment for prospective students to acquire knowledge at any educational level and to bridge the gap between teachers and students. It involves using primarily the internet and one or more other technologies involving one/two-way transmissions through open broadcast, closed circuit, cable, microwave, broadband lines, fiber optics, satellite, or wireless communications devices or audio/video conferencing. E-learning refers to a learning system that we can obtain through the internet using an electronic device. We also call it online learning or online education. The ‘E’ in E-learning stands for ‘Electronic.’ Hence, the original term ‘electronic learning.’

### **1.1 MOTIVATION**

Content available on the web its variable some of it is excellent but is mostly mediocre so we want to make an integrated platform to ensure that we provide best content which is fitted by the number of views, Our goal is to discuss the overview of learning object approach to create learning content using Oriented analysis Design Methods and evaluation results. As noted by the CIPD (2002) one can agree that learning is more efficient when e-learning material are specific own organization, rather than generic or off-the shelf Materials. E-learning enable learners to synthesize traditional learning with online experience.

## **1.2 OBJECTIVES**

The purpose of E-learning Management System is to automate the existing manual system by the help of computerized equipment's and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. The required software and hardware are easily available and easy to work with. E-learning Management System, as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources. The organization can maintain computerized records without redundant entries. That means that one need not be distracted by information that is not relevant, while being able to reach the information.

## **1.3 BRIEF DESCRIPTION OF THE SYSTEM**

Every organization, whether big or small, has challenges to overcome and managing the information of Student, quiz, class, and questions. Every E-learning Management System has different Assignment needs, therefore we design exclusive employee management systems that are adapted to your managerial requirements. This is designed to assist in strategic planning, and will help you ensure that your organization is equipped with the right level of information and details for your future goals. Also, for those busy executive who are always on the go, our systems come with remote access features, which will allow you to manage your workforce anytime, at all times. These systems will ultimately allow you to better manage resources.

- Assignment Management Module: Used for managing the Assignment details.
- QUESTION Module: Used for managing the details of QUESTION CLASS Module:  
Used for managing the details of CLASS
- TEACHER Module: Used for managing the TEACHER details
- QUIZ Module: Used for managing the QUIZ information.
- Login Module: Used for managing the login details Users Module: Used for managing the users of the system

# **CHAPTER 2**

## **LITERATURE SURVEY**

## **LITERATURE SURVEY**

A literature review is a survey of scholarly sources that provides an overview of a particular topic. Literature reviews are a collection of the most relevant and significant publications regarding that topic in order to provide a comprehensive look at what has been said on the topic and by whom. The basic components of a literature review include:

- a description of the publication;
- a summary of the publication's main points;
- a discussion of gaps in research;

An evaluation of the publication's contribution to the topic LMS(Learning management system) reporting is a system of data collection and analysis in your learning management system.

Basically, LMS reports help you monitor what's going on with the training process, what it means, and what you can do to improve results. In other words, they tell you whether your efforts are actually translating into results. Our literature survey represents a study of previously existing material on the topic of the e-learning system. Reviewed material includes :

1. Existing theories about the topic which are accepted universally.
2. Books written on the topic, both generic and specific.
3. Research done in the field usually in the order of oldest to latest.
4. Challenges being faced and ongoing work, future scope.

There are two main aims to this literature review. The first aim is to establish the characteristics and importance of formative, coursework assessment. The second aim is to identify e-learning techniques, tools and approaches for this type of assessment, to discuss what is known about their effectiveness and to uncover factors influencing uptake. For the first aim key articles and books that have shaped current theory on formative assessment of student work have been identified and analyzed. For the second aim a comprehensive search of e-learning literature from 2001 to the present was conducted.

# **1. A study on the student's perspective on the effectiveness of using e-learning**

## **Faculty of Education, University Teknologi MARA, Shah Alam, Selangor, Malaysia**

E-Learning is one of the instructional education programs that can help students in their studies. The purpose of this study was to investigate the effectiveness of using E-learning among secondary school students. Data were collected from 45 students studying at three schools in Shah Alam, Selangor. The data was analyzed using SPSS version 19.0. Results showed that most of the respondents were exposed to E-learning and among the reasons they preferred to learn via e-Learning was it provided them greater flexibility to select either instructor-led or self-study courses and enabled them the flexibility to learn at any place and time. They also agreed that one of the disadvantages of using e-Learning was it would reduce the need for face to face interaction with their friends. After the survey, 23.81% of the students admitted that the main advantage of e-learning is that it 'enables learning at any place'. According to Chan et al. (2007), e-learning provides convenience and portability as students can access it anywhere i.e. at home, at work or while in transit. The researchers agree that e-learning provides benefits to students in terms of easy access at any places. Based on Table 2, it was not surprising to see that 39.82% of the students got access to the Internet at home because most houses today have computers and Internet connections. Surprisingly, school is the hardest place for the students to get access to the Internet (10.62%).

The study focused on addressing whether educational systems can use technology to optimize students learning and interest. Many countries of the world are promoting education through e-learning. In developing countries such as Pakistan use of technology at early stages. so mode of e-learning is not more practiced or supported. However, the current research investigates the potentially positive contributions of technology on student's interest in learning at young ages in Pakistan

## **2. A Literature Review of E-Learning and E-Teaching in the Era of Covid-19 Pandemic Zethembe Mseleku University of Kwa-Zulu Natal:**

Abstract: The emergence of Covid-19 pandemic undoubtedly resulted in devastating socio-economic challenges across the world. In attempt to manage the contagion, many countries have implemented restrictive measures to reduce social gatherings and to promote social distancing. This meant the closure of higher learning institutions and a major shift from traditional classroom-based teaching and learning to virtual approach. While higher education may have transformed and moved to online due to Covid-19, it is unknown whether this transformation produces positive teaching and learning outcomes. This literature review is conducted to elicit relevant evidence on E-learning and E-teaching outcomes, challenges and opportunities in the era of Covid-19 pandemic.

A comprehensive literature search was conducted on 16 databases for relevant studies published in the year 2020. In addition, reference lists of studies identified from the initial search were used to retrieve additional relevant studies. The search terms used were Covid-19, coronavirus, online learning, E-learning, E-teaching and higher education. An inclusion and exclusion criteria was developed to select the most relevant articles for final review. Studies were eligible for inclusion if they addressed higher education E-learning and E-teaching outcomes, challenges and opportunities in the era of Covid-19.

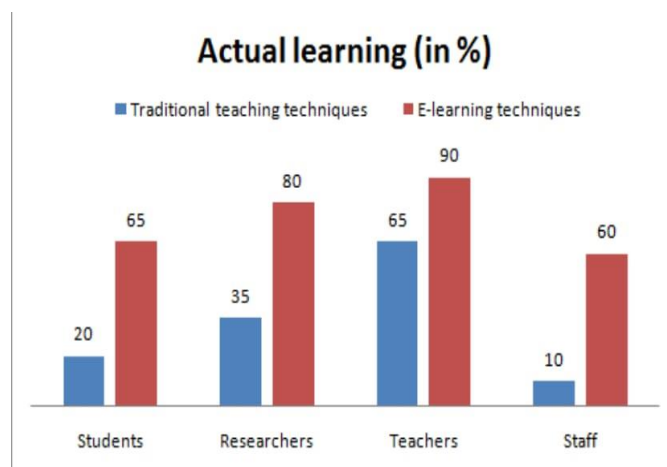
While numerous studies have been published on the pandemic, only few studies addresses the depth of Elearning and E-teaching outcomes, associated challenges and opportunities during the period of Covid-19. The literature presented a number of learning and teaching challenges faced by academics and students. These challenges include the inability to access or use the online learning and teaching tools; difficulties to adjust particularly for students living in rural areas and those from low-income families; and associated stress, depression and anxiety.



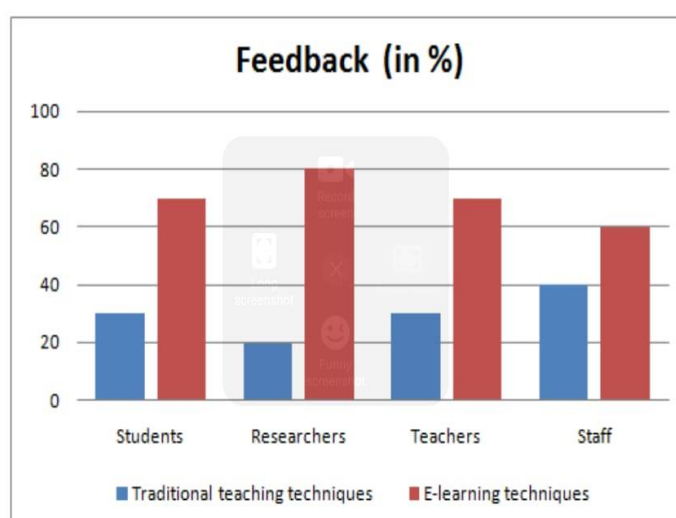
### **3. A Comparative Study of E-Learning Technique with Traditional Teaching Techniques** Sunita Gaur<sup>1</sup>, Archana Chaudhary<sup>2</sup>, Mithilesh Mittal<sup>3</sup> Lecturer, School of Computer Science & IT, Devi Ahilya Vishwa Vidyalaya, Indore, India 1 Senior Lecturer, School of Computer Science & IT, Devi Ahilya Vishwa Vidyalaya, Indore, India Professor, Govt. Holkar Science College, Indore, India.

**Abstract:** E-learning System has been an increasing focus as a vital teaching method for more than a decade. This project focuses upon a comparative study of E-learning teaching techniques with traditional teaching techniques. The feedback from different user groups – students, researchers, teachers and staff is considered for traditional teaching techniques and e-learning based teaching techniques. The tools used showed the effectiveness of e-learning techniques over traditional teaching methods. The study showed that e-learning techniques attained high positive feedback for e-learning techniques as compared to traditional teaching methods for all the user categories.

As the graph indicates, from the four groups: in case of students 60% conceptual understanding is developed by e-learning techniques whereas only 30% of conceptual understanding is developed using traditional teaching techniques. Similarly other groups also offered more points to conceptual understanding through e-learning techniques as compared to traditional techniques. One important learning parameter was taken as actual learning. The graph below shows how different user categories voted for actual learning with respect to e-learning techniques as well as traditional teaching techniques.



It is clear from the graph above that e-learning techniques have good feedback from students, researchers, teachers and staff members. It is clear from the above graph that 70% of students gave positive feedback for e-learning techniques and only 30% of students preferred traditional methods of teaching. Similarly 80% of researchers preferred e-learning and only 20% of researchers gave positive feedback for traditional methods. It is also clear from the graph above that 70% of teachers appreciate e-learning and only 30% of teachers appreciate traditional teaching methods. In case of staff members 70% of staff members gave positive feedback for e-learning techniques and 30% gave positive feedback for traditional teaching technique



#### **4. E-Learning and Students' Motivation: A Research Study on the Effect of E-Learning on Higher Education Samir Abou El-Seoud, Islam A.T.F. Taj-Eddin, Naglaa Seddiek, Mahmoud M. El-Khouly, Ann Nosseir British University in Egypt-BUE, Cairo, Egypt, Helwan University, Cairo, Egypt.**

**Abstract:**-Most universities in Egypt face many educational problems and obstacles that technology can help to overcome. An open source, such as Moodle e-learning platform, has been implemented at many Egyptian universities. Moodle could be used as an aid to deliver e-content and to provide various possibilities for implementing asynchronous e-learning web-based

modules. This project shows that the use of interactive features of e-learning increases the motivation of the undergraduate students for the learning process.

Incorporating technology in the learning process does not necessarily guarantee motivated students. In fact, online instruction has resulted in the student teacher relationship becoming less personal. Teachers are required to turn the classroom into an online environment. The question is what exactly is required of teachers to motivate students in an online environment?

It is essential for teachers to understand their students' motivations. Although students take online courses with the intention of successfully completing them, they tend to fail for a number of reasons. The success or failure of online instruction is perhaps related to student motivation. To stimulate students, teachers should:

1. Keep in mind that motivation must be natured in students.
2. Explain to their students how the online environment may be used.
3. Encourage interaction and collaboration among their students.
4. Build study groups so that students will no longer be studying in isolation.
5. Help students to make friends by meeting fellow students in the online environment.
6. Interact with their students by monitoring the online presence of them and supplying them with continuous feedback.
7. Construct their learning materials and environment to target their students.
8. Facilitate the students' interaction with the online material by explaining the goal behind designated tasks.
9. Be aware of students' frightened, worries and nervousness because such anxiety may have a negative effect on their accessibility and motivation.

The increased use of e-learning among educational institutions has led to a change in higher education. According to findings, there has been a rise of about 12-14 percent annually in enrolment for online learning over a five year period: 2004-2009 after secondary education [2]. One of the main reasons for this is it gives students' greater access to education in comparison to traditional methods of teaching as students can undertake their study from anywhere and at any time as well as being given the option to study part-time or full-time [3].

E-learning has transformed the educational sector by enabling students to share information and data in a relatively easy way he increased use of e-learning among educational institutions has led to a change in higher education.

## 5. European Journal of Interactive Multimedia and Education E-Learning Platform: A Sustainable Approach for Students' Learning during and after Coronavirus Pandemic in Oyo State Secondary Schools, Oyo State, Nigeria

**Abstract:**-E-learning approach cannot be underrated in sustaining teaching-learning activities in the schools. This project reports a survey done that assessed the E-learning approach organized by organized by Oyo State government for Oyo State secondary school students.

The target populations of the study comprised only Senior Secondary School students in class three (SSS 3) within Oyo State Secondary Schools. The sample of 200 students was selected using simple random, purposive and convenience. Sampling techniques respectively.

An instrument was used for the study. The data were analyzed using frequencies, Percentage scores, pie charts, mean and standard deviation (SD). The findings showed students were highly

**Table 1.** Time table scheduled for Radio and Television Programmes in Oyo State for secondary schools students

DAY	SUBJECTS		SUBJECTS	
	TIME	MEDIUM OF COMMUNICATION	TIME	MEDIUM OF COMMUNICATION
MONDAY	BIOLOGY		ECONOMICS	
	9:15 - 9:45 A.M	OLUYOLE FM	1:00 - 1:30 P.M	BCOS
	9:30 - 10:00 AM	AJILETE FM	1:30 - 2:00 P.M.	OLUYOLE FM
	10:30 - 11:00 AM	OKE-OSUN FM	2:30 - 3:00 P.M.	OKE OSUN FM
TUESDAY	12:30 - 1:00 PM	BCOS	4:00 - 4:30 P.M	AJILETE FM
	COMMERCE		AGRIC SCIENCE	
	9:00 - 9:30 A.M.	BCOS	1:30 - 2:00 P.M	OLUYOLE FM
	9:15 - 9:45 A.M	OLUYOLE FM	2:30 - 3:00 P.M	OKE OSUN FM
WEDNESDAY	9:30 - 10:00 A.M.	AJILETE FM	2:30 - 3:00 P.M.	AJILETE FM
	10:30 - 11:00 A.M.	OKE OSUN FM	4:00 - 4:30 P.M	BCOS
	MATHEMATICS		ENGLISH LANGUAGE	
	9:00 - 9:30 A.M.	BCOS	1:30 - 2:00 P.M.	BCOS
THURSDAY	9:15 - 9:45 A.M	OLUYOLE FM	1:30 - 2:00 P.M.	OLUYOLE FM
	11:30 - 12:00 PM	OKE OSUN FM	2:30 - 3:00 P.M	OKE OSUN FM
	11:30 - 12:00 PM	AJILETE FM	4:00 - 4:30 P.M.	AJILETE FM
	CHEMISTRY		GOVERNMENT	
FRIDAY	9:00 - 9:30 A.M.	BCOS	1:30 - 2:00 P.M.	OLUYOLE FM
	9:15 - 9:45 A.M	OLUYOLE FM	2:30 - 3:00 P.M	BCOS
	10:30 - 11:00 A.M.	OKE OSUN FM	2:30 - 3:00 P.M.	OKE OSUN FM
	11:30 - 12:00 PM	AJILETE FM	2:30 - 3:00 P.M.	AJILETE FM
FRIDAY	PHYSICS		LIT IN ENGLISH	
	9:00 - 9:30 A.M.	BCOS	1:30 - 2:00 P.M.	OLUYOLE FM
	9:15 - 9:45 A.M	OLUYOLE FM	2:30 - 3:00 P.M	OKE OSUN FM
	10:30 - 11:00 A.M.	OKE OSUN FM	2:30 - 3:00 P.M.	AJILETE FM
FRIDAY	11:30 - 12:00 PM	AJILETE FM	4:30 - 5:00 P.M.	BCOS

aware e-learning programs (60%) and highly participated during the programs (62.5%). The study equally indicated that e-learning programs on radio and television organized by Oyo State government was very highly efficient(57%).

The study further indicated that inadequate power supply ( $x=3.45$ ) and high cost of subscriptions to the Satellite television stations ( $x=3.45$ ) were factors hindering the students' participation during the E-learning Programs on radio and television.

E-learning is regarded as innovative and modern method of Teaching. It was implemented into education globally because it Promotes the accessibility to Internet.

Thiele (2003) referred e-learning as educational system whereby the teacher and the students are physical Separated but link together through the means of technology tool that connect the teaching-learning activities.

According to Omiko (2016), television and radio are powerful Sources of learning that leads to effective. Empirical study carried out By Omiko (2018) indicated that majority of the children were familiar. With radio and television programs. The study further disclosed that Large number of the children learned skills set out to inculcate from the Programs.

### **Research Question 1: What is the level of awareness of students On the e-learning programs organized?**

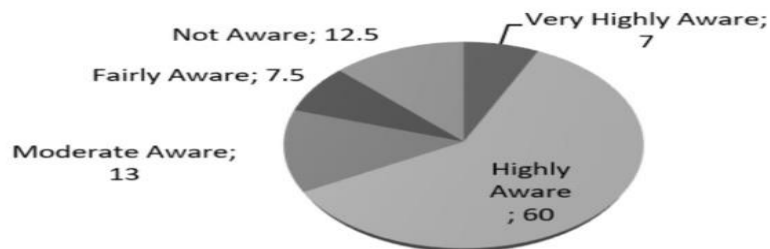
Depict the level of awareness of students on 3the e-learning programs organized by Oyo State government. As Shown on the table, 7% of the students concurred that they were very Highly aware of the e-learning programs on radio and television Organized by Oyo State government. Again, 60% of the students Affirmed that they were highly aware of the e-learning programs .Meanwhile, 13% of the students claimed to be moderately aware. It was Claimed by 7.5% of the students that they were fairly aware of the e-Learning programs. However, 12.5% of the students made it clear that They were not aware of the e-learning programmes on radio and Television. The high percentage of the students confirmed that they Were highly aware, it can be suggested in the study that high number of Students were well aware of the e-learning programmes on radio and Television that was organized by Oyo State government to facilitate the Learning of the students during the closure of schools as a result of Pandemic. This implies that the students were aware of the programmes through their parents, friends, news project, social media And

Radio/Television news. Though, government still needs to Circulate information to parents and guardian most especially in the Rural area so that they can have more information to pass across their Children about the educative programmes organized on radio and Televisions. The finding concurred with the findings of Akhter (2011) Who reported that students in Pakistan showed mass awareness of Educational television programmes (ETV) for effective distance Learning. This study equally agreed with the study of Omiko (2018) who Reported that majority of the

**Table 4.** Level of awareness of students on the e-learning programmes organized by Oyo State government

Level of Students' Awareness		<i>Frequency</i>	<i>Percentages</i>
Very Highly Aware	(75>)	14	7
Highly Aware	(60-74)	120	60
Moderate Aware	(45-59)	26	13
Fairly Aware	(30-45)	15	7.5
Not Aware	(<29)	25	12.5
<b>Total</b>		<b>200</b>	<b>100</b>

Field work, 2020



**Figure 1.** Pie Chart Showing level of awareness of students on the e-learning programmes organized by Oyo State government

children were familiar with radio and Television programs .However, the findings of the study contradicted the study of Olumorin, Aderoju and Onojah

## **Research Question 2: What is the level of students' participation on the e-learning programs organized by Oyo State government?**

Table 5 and Figure 2 show the level of students' participation on The e-learning programs organized by Oyo State government.

As Shown on the table, 6.5% of the students claimed that they were very Highly participated in e-learning programs on radio and television Organized by Oyo State government. It was also affirmed by 62.5% of the students that they were highly participated during the e-learning programs. As shown on the table, 13.5% of the students were Moderately participated during the programs. It was disclosed by

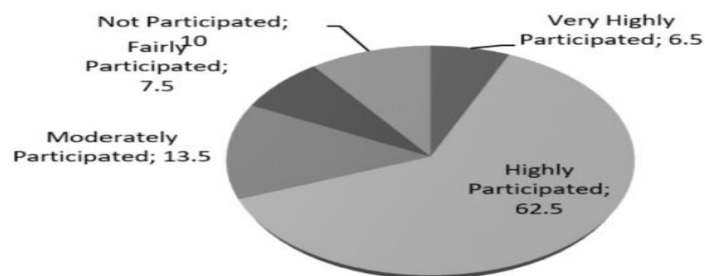
7.5% of the students that they were fairly participated during the Program. However, 10% of the students claimed that they were not Participated at all during the programs.

Having looking at high Percentage of the students affirmed to be highly participated during the Radio and television programs, it denotes that high number of Students in the study area were highly participated during the e-Learning programs on radio and television that organized Oyo State government.

**Table 5.** Level of students' participation on the e-learning programmes organized by Oyo State government

Level of Students' Participation	Frequency	Percentages
Very Highly Participated (75>)	13	6.5
Highly Participated (60-74)	125	62.5
Moderately Participated (45-59)	27	13.5
Fairly Participated (30-45)	15	7.5
Not Participated (<29)	20	10
<b>Total</b>	<b>200</b>	<b>100</b>

Field work, 2020



**Figure 2.** Pie Chart Showing level of students' participation on the e-learning programmes organized by Oyo State government

## 6. Systematic research of e-learning platforms for solving challenges faced by Indian engineering students Shivangi Viral Thakker, Jayesh Parab, Shubhankar Kaisare

**Abstract:-**As educational institutes began to address the challenges posed by COVID-19, e-learning came to the foreground as the best bet left. This study is in quest of revealing engineering student's perceptions of the available e-learning platforms, thus surfacing the underlying bottlenecks. Further, it aims at providing solutions that would help enhance the e-learning experience not only in pandemic times but also in the long run.

This holistic research begins with a comprehensive comparative study about the available e-learning platforms, followed by a primary data analysis through an online survey of 364 engineering students from various colleges and branches. The collected data was analyzed to detect bottlenecks in online learning and suggestions are given for solving some challenges.

On a five-point Likert scale, the available e-learning platforms garnered ratings ranging from 2.81 to 3.46. Google meet was the most preferred platform. However, with a net promoter score (NPS) of 30.36, Microsoft Teams emerged as the most satisfying platform. Technical shortcomings clubbed with psychological and biological factors were found to be taking a toll on e-learning.

This innovative research is based on the perceptions of engineering students hailing majorly from Indian cities, and hence, it may be having educational stream bias and geographical bias. The research could be further extended to cover rural areas and global trends in e-learning.

The research offers a thorough analysis of e-learning platforms, as seen through the lens of engineering students. Furthermore, the analysis does not constrain itself to the technicalities and thus proves to be an all-encompassing one, potent enough to surface critical issues marring the e-learning experience.

The survey respondents highlighted several shortcomings which were barring them from having an effective e-learning experience. Along with these shortcomings, the respondents expressed their desire for certain additional features which would greatly boost the e-learning experience.

#### 1. Security concerns

A high number of students are attending digital classrooms and it has become easier for cybercriminals to hijack meetings. Events of video hijacking by uninvited parties to disrupt the usual proceedings have been on the rise since the global quarantine began. Spreading hateful comments, racist and obscene content on these platforms has given rise to a new kind of Internet trolling. Further, unwarranted logins to the enterprise cloud architecture have resulted in immense data breaches.

#### 2. Online engagement concerns

- Proctor mode

After spending huge amounts on these e-learning platforms, educational institutions do not prefer using separate applications designed specifically for proctoring. This leaves them with two broad options which are to either conduct examinations without proctoring or to use the same e-learning platform for proctoring. The former invites a large number of unfair practices and thus



is unjust for diligent students (Nguyen, 2015). The latter requires all the participants to switch on their video which consumes a great amount of bandwidth resulting in lags. Even if incoming videos are disabled, the bandwidth problem persists with the host which leads to difficulties in proctoring (Gillett-Swan, 2017; Dhawan, 2020). Thus, the introduction of a specialized proctor mode on these platforms is a desire of many students.

- Lecture mode

Survey respondents reported that mischiefs by certain students (e.g.: disturbing annotations on the screen, muting the instructor, etc.) disrupt the flow of the lectures. Though the platforms have provided certain host-specific features, the spontaneous virtualization of education resulted in the instructors getting insufficient time to adapt themselves to these features. This issue has also been highlighted by Moradimokhles and Hwang (2020) as a limitation of online learning. As a result, a majority of them are not aware of or are unable to use all the features they have at their disposal. Even before the pandemic hit, this adaptability was an issue that was highlighted by Parkes *et al.*, (2014).

### 3. Introduction of new features

In addition to the existing features, the respondents expressed the need for certain features. A large number of instructors annotate the content to provide a lucid explanation. However, the students can download the file without any annotations. An option to download it with annotations would ensure a quicker grasping of the concept when students revisit that concept. An inbuilt notepad that can be opened along with the lecture content, in a split-screen mode, would make the notes taking process hassle-free. The platforms should further be compatible with augmented reality and virtual reality as these would greatly increase the level of understanding. The presence of a virtual user guide along with a chat box would help in resolving the basic issues faced by a great number of users. The ability to rewind live lectures, like YouTube Live, would help students who have missed out on certain important parts of a lecture.

Almost all the platforms are sufficient for learning for the time being but have shortcomings that need to be improved to adapt to this fast-changing education sector. As per this research study, Google Meet is the best platform among students followed by Zoom and Microsoft Teams respectively, even though NPS indicates Microsoft Teams is the best.

# **Chapter 3**

## **SYSTEM ANALYSIS AND DESIGN**

## **3.1 ANALYSIS**

Analysis is a process of collecting and interpreting facts, identifying the problems, and decomposition of a system into its components. The main purpose of system analysis is to enable the system developer to understand the user requirements and develop an application according to their requirements.

It is a problem solving technique that improves the system and ensures that all the components of the system work efficiently to accomplish their purpose.

For analysis we performed the following processes:

### **3.1.1 PROBLEM DEFINITION**

A problem statement is usually to explain the problem your process improvement project will address. In general, a problem statement will outline the negative points of the current situation and explain why this matters to produce your project. One of the most important goals of any problem statement is to define the problem being addressed in a way that's clear and precise. Creation of a problem statement is an activity that is best completed in a small group (4-6 people). It is helpful to have a couple of people who are involved in the process and a process owner involved in the activity. Before the content is developed, you need to determine whether the learning problem on hand is really worthy of being researched and developed into a course. Often, successful eLearning organizations or companies with in-house eLearning departments face the looming challenge of “what should the next eLearning course be about?” . Many companies seek eLearning solutions for the sole purpose of knowledge management and knowledge development. When course mentors facilitate large volumes of knowledge sharing, they feel they can filter out content for the next course. Without doubt, the online discussion forum in your learning management system is a perfect place to identify learning problems.

But, are those problems worth researching and developing into complete courses? How do you determine the research worthiness of a problem? What are the steps that lead to this decision? In this article, we answer these questions and help you create a new course from a learning problem or a learning gap.

### **3.1.2 FEASIBILITY STUDY**

#### **Feasibility Study:**

After doing the project study and analyzing all the existing or required functionalities of the system, the next task is to do the feasibility study for the project. All projects are feasible - given unlimited resources and infinite time. Feasibility study includes consideration of all the possible ways to provide a solution to the given problem. The proposed solution should satisfy all the user requirements and should be flexible enough so that future changes can be easily done based on the future upcoming requirements.

#### **A. Economical Feasibility**

This is a very important aspect to be considered while developing a project. We decided the technology based on minimum possible cost factor. All hardware and software cost has to be borne by the organization. Overall we have estimated that the benefits the organization is going to receive from the proposed system will surely overcome the entity costs and the later on running cost for system.

#### **B. Technical Feasibility**

This included the study of function, performance and constraints that may affect the ability to achieve an acceptable system. For this feasibility study, we studied complete functionality to be provided in the system, as described in the System Requirement Specification (SRS), and checked if everything was possible using different type of frontend and backend platform

#### **C. Operational Feasibility**

No doubt the proposed system is fully GUI based that is very user friendly and all inputs to be taken all self-explanatory even to a layman. Besides, a proper training has been conducted to let know the essence of the system to the users so that they feel comfortable with new system. As far our study is concerned the clients are comfortable and happy as the system has cut down their loads and doing.

Best Learning Management System Defined. The best LMS solution is defined in this study as one in which all LMS components are considered within the total learning infrastructure of Zanzibar University such that maximum student success is ensured from both an institutional and System perspective. Aspects of these components within the frame work of student success were assessed by the following attributes:

- Cost effectiveness

The total cost figures included in this report represent a current snapshot of the LMS expenditures excluding self-hosting and migration cost, is reported to the Assessment team. The benefits of the LMS is expected to be more than cost such as hosting maintenance and other cost that may be incurred.

- Support and Training

The system must have a virtual learning community provides students orientates templates and professionals, development resources for faculty by providing online helpdesk services for students and faculty that includes chat, email, telephone and a personalized support portal available 24/7/365.

- Ease of Use

The LMS must have ease of use components and no additional instrument questions were developed the system should have a higher level of instructor and administrator perceived application functionality.

- Scalability

The LMS must be able to report on the number of active course, users, and average course size and storage capacity on their LMS. It should be able to hold a lot of actives but still be able to use a less storage capacity.

- Sustainability

The sustainability of an LMS is paramount to the future growth of distance learning in the university. The system-wide capability to support LMS-centric learning technology is challenging in both the short and long terms. Information from the success NC listening tour

notes indicate that: -(1) Colleges differ on LMS preferences but want continued support from the System Office.(2) Learning technology offers an effective and flexible means to facilitate learning.

### **3.1.3 REQUIREMENT ANALYSIS**

#### **1) Software Requirement Specification**

The Software Requirements Specification is produced at the culmination of the analysis task. The function and performance allocated to software as part of system engineering are refined by establishing a complete information description, a detailed functional and behavioral description, an indication of performance requirements and design constraints, appropriate validation criteria, and other data pertinent to requirements.

The proposed system has the following requirements:

- System needs store information about new entry of Assignment. System needs to help the internal staff to keep information of Student and find them as per various queries.
- System need to maintain quantity record.) System need to keep the record of TEACHER.
- System need to update and delete the record. System also needs a search area.
- It also needs a security system to prevent data.

#### **2) Functional Requirements**

A functional requirement defines a system or its component Functional Requirement (FR) is a description of the service that the software must offer. It describes a software system or its component. A function is nothing but inputs to the software system, its behavior, and outputs. In this section we will discuss different functional requirement of different user.

##### **Admin**

- Create usernames and passwords.
- Manage students account.
- Ability to login and update profile.
- Ability to logout after the completion of process.

- Ability to create, edit or delete courses.
- Ability to create, edit or delete test.
- Ability to create, edit or delete assignments.
- Ability to create, edit or delete specialties.

#### Students

- Ability to download tests
- Ability to view assignments.
- Ability to share solutions of assignments.
- Register data.
- Ability to login and update profile.
- Ability to logout after the completion of the process.

#### Database Design

This section describes the six tables that are linked to our project. These six tables is described in the following point

- Admin
- Students
- Courses
- Assignments
- Tests

## 3.2 DESIGN DETAILS

### 3.2.1 ER Diagram

An Entity Relationship (ER) Diagram is a type of flowchart that illustrates how “entities” such as people, objects or concepts relate to each other within a system. ER Diagrams are most often used to design or debug relational databases in the fields of software engineering, business information systems, education and research. Also known as ERDs or ER Models, they use a defined set of symbols such as rectangles, diamonds, ovals and connecting lines to depict the

interconnectedness of entities, relationships and their attributes. They mirror grammatical structure, with entities as nouns and relationships as verbs.

The components and features of an ER diagram:-

ER Diagrams are composed of entities, relationships and attributes. They also depict cardinality, which defines relationships in terms of numbers. Here's a glossary:

### **Entity**

A definable thing—such as a person, object, concept or event—that can have data stored about it. Think of entities as nouns. Examples: a customer, student, car or product. Typically shown as a rectangle.

### **Relationship**

How entities act upon each other or are associated with each other. Think of relationships as verbs. For example, the named student might register for a course. The two entities would be the student and the course, and the relationship depicted is the act of enrolling, connecting the two entities in that way. Relationships are typically shown as diamonds or labels directly on the connecting lines.

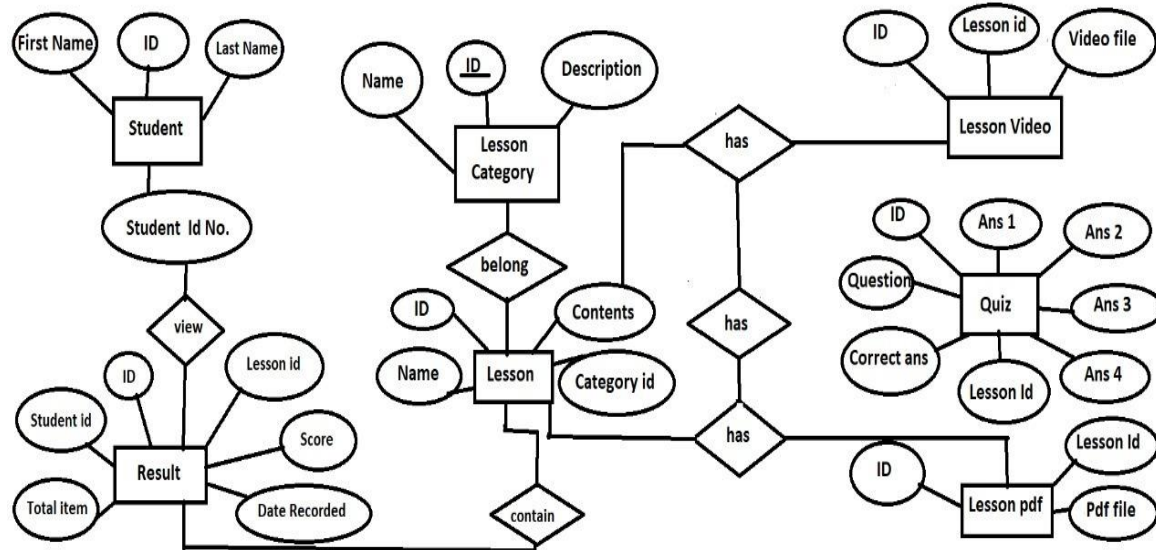
### **Attribute**

A property or characteristic of an entity. Often shown as an oval or circle. Descriptive attribute: A property or characteristic of a relationship (versus of an entity.)

Multi-value: More than one attribute value is denoted, such as multiple phone numbers for a person.

Single-value: Just one attribute value. The types can be combined, such as: simple single-value attributes or composite multi-value attributes.





**Fig 3.2.1 Entity Relationship Diagram**

### 3.2.2 Use Case Diagram

In the Unified Modelling Language (UML), a use case diagram can summarize the details of your system's users (also known as actors) and their interactions with the system. To build one, you'll use a set of specialized symbols and connectors. An effective use case diagram can help your team discuss and represent:

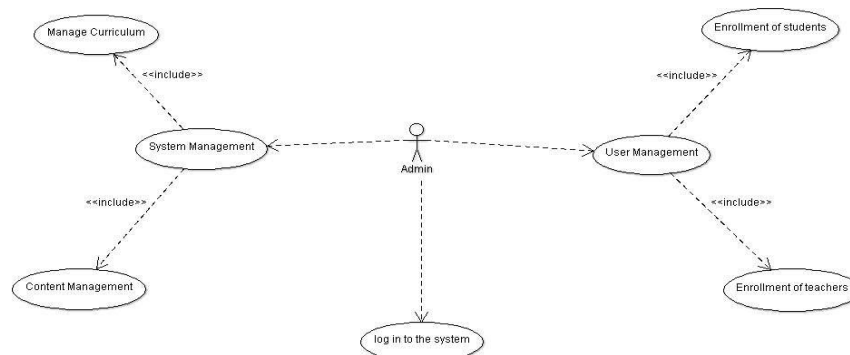
- Scenarios in which your system or application interacts with people, organizations, or external systems
- Goals that your system or application helps those entities (known as actors) achieve
- The scope of your system

#### Use case diagram components

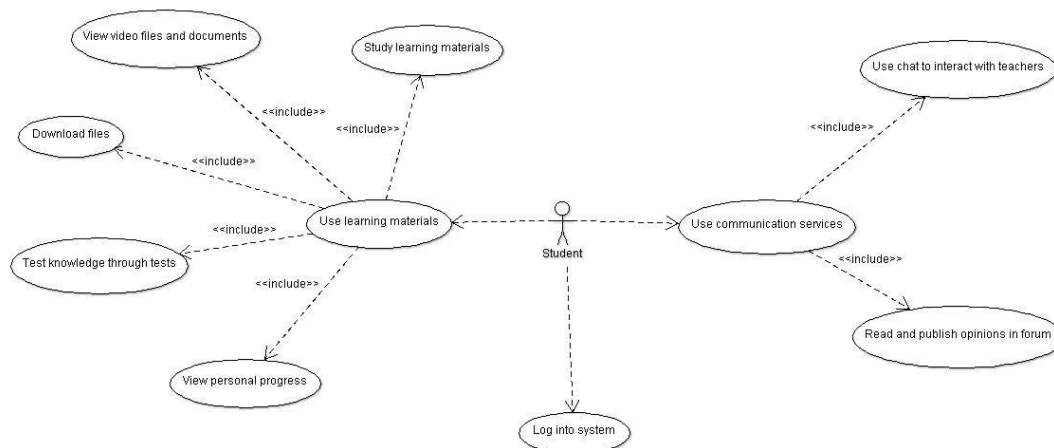
To answer the question, "What is a use case diagram?" you need to first understand its building blocks. Common components include:

- **Actors:** The users that interact with a system. An actor can be a person, an organization, or an outside system that interacts with your application or system. They must be external objects that produce or consume data.

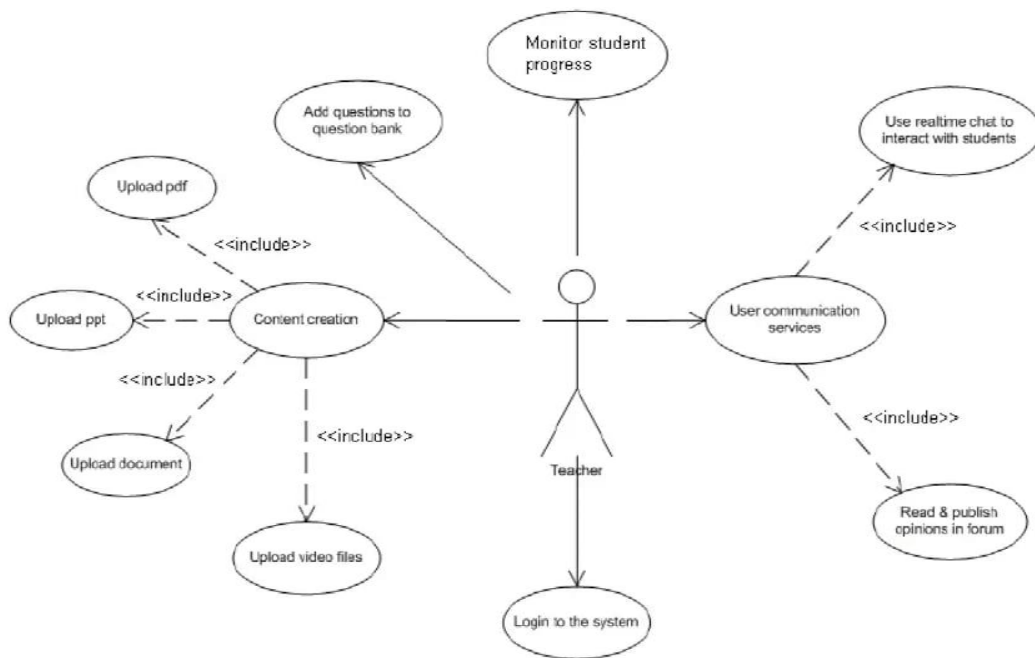
- System: A specific sequence of actions and interactions between actors and the system. A system may also be referred to as a scenario.
- Goals: The end result of most use cases. A successful diagram should describe the activities and variants used to reach the goal.



**Fig 3.2.2 Use Case Diagram for Admin**



**Fig 3.2.2 Use Case Diagram for Student**



**Fi 3.2.2 Use Case Diagram for Teacher**

### 3.2.3 Data Flow Diagram

DFD is the abbreviation for Data Flow Diagram. The flow of data of a system or a process is represented by DFD. It also gives insight into the inputs and outputs of each entity and the process itself. DFD does not have control flow and no loops or decision rules are present. Specific operations depending on the type of data can be explained by a flowchart. Data Flow Diagram can be represented in several ways. The DFD belongs to structured-analysis modelling tools. Data Flow diagrams are very popular because they help us to visualize the major steps and data involved in software-system processes.

#### Components of DFD

The Data Flow Diagram has 4 components:

- **Process**

Input to output transformation in a system takes place because of process function. The symbols of a process are rectangular with rounded corners, oval, rectangle or a circle. The process is named a short sentence, in one word or a phrase to express its essence

- **DataFlow**

Data flow describes the information transferring between different parts of the systems. The arrow symbol is the symbol of data flow. A relatable name should be given to the flow to determine the information which is being moved. Data flow also represents material along with information that is being moved. Material shifts are modeled in systems that are not merely informative. A given flow should only transfer a single type of information. The direction of flow is represented by the arrow which can also be bi-directional.

- **Warehouse**

The data is stored in the warehouse for later use. Two horizontal lines represent the symbol of the store. The warehouse is simply not restricted to being a data file rather it can be anything like a folder with documents, an optical disc, a filing cabinet. The data warehouse can be viewed independent of its implementation. When the data flow from the warehouse it is considered as data reading and when data flows to the warehouse it is called data entry or data updation.

- **Terminator**

The Terminator is an external entity that stands outside of the system and communicates with the system. It can be, for example, organizations like banks, groups of people like customers or different departments of the same organization, which is not a part of the model system and is an external entity. Modelled systems also communicate with terminator.

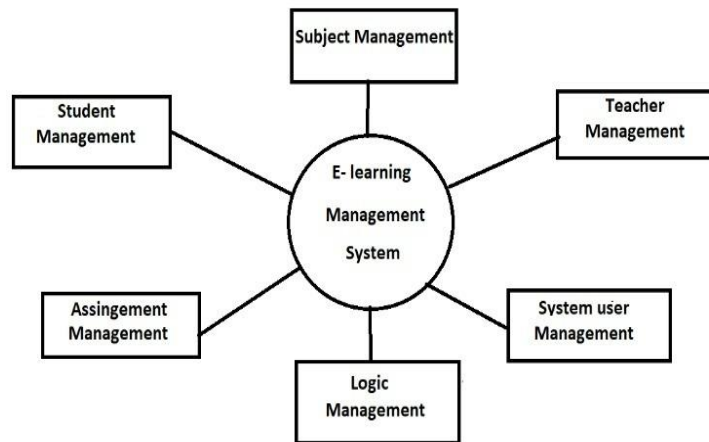
## **Levels of DFD**

DFD uses hierarchy to maintain transparency thus multilevel DFD's can be created. Levels of DFD are as follows:

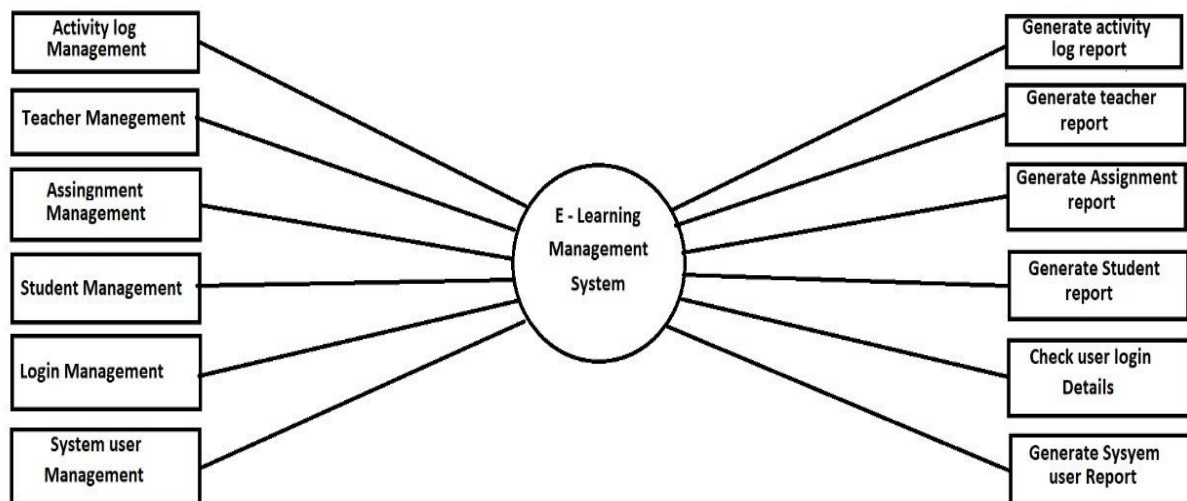
- 0-level DFD
- 1-level DFD:
- 2-level DFD

**Level – 0 Data Flow Diagrams** – These diagrams describe general high-level processes (the first level of numbering is used), external entities, data flows, and data stores. An example of the first level of numbering for a process is 1.

**Level – 1 Data Flow Diagrams** – Level – 1 DFD decomposes each parent process of the Level – 0 DFD into more details; into child processes. It also contains data stores, external entities, and data flows. An example of numbering for a process is 1.1.



**Fig 3.2.3 Zero level DFD**



**Fig 3.2.3 First level DFD**

### 3.2.4 Class Diagram

The class diagram is one of the types of UML diagrams which is used to represent the static diagram by mapping the structure of the systems using classes, attributes, relations, and operations between the various objects. A class diagram has various classes; each has three-part; the first partition contains a Class name which is the name of the class or entity which is participated in the activity, the Second partition contains class attributes that show the various properties of the class, the third partition contains class operations which shows various operations performed by the class, relationships shows the relation between two classes.

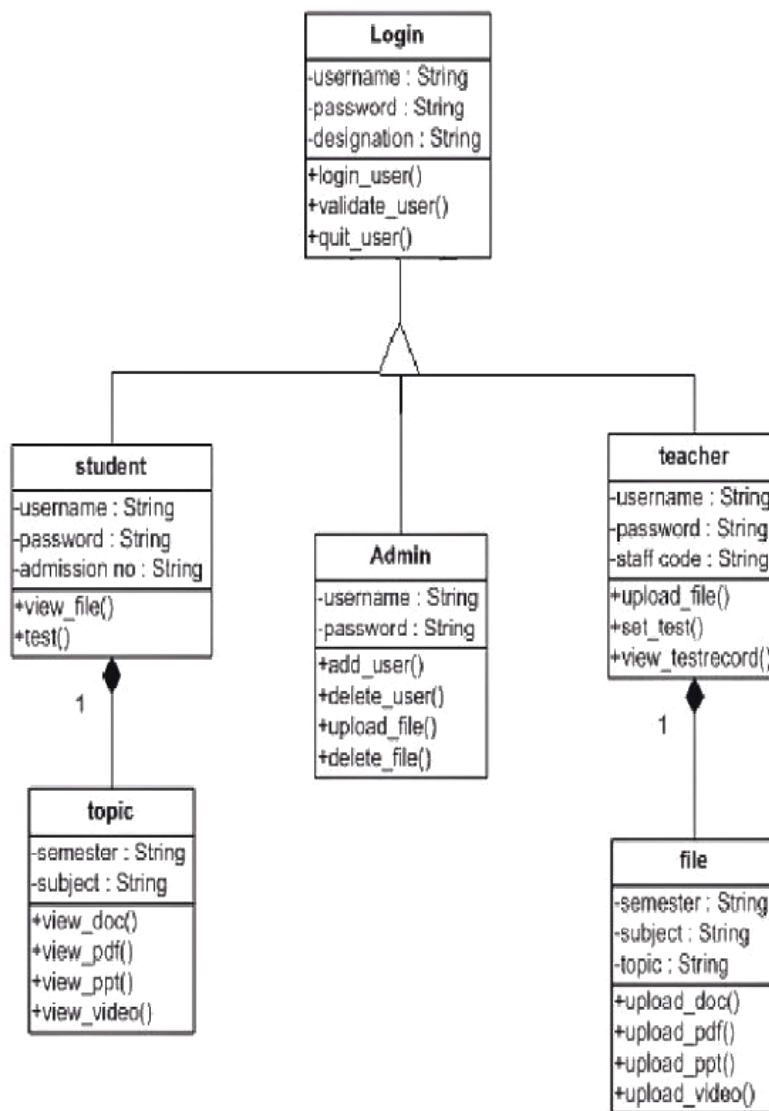
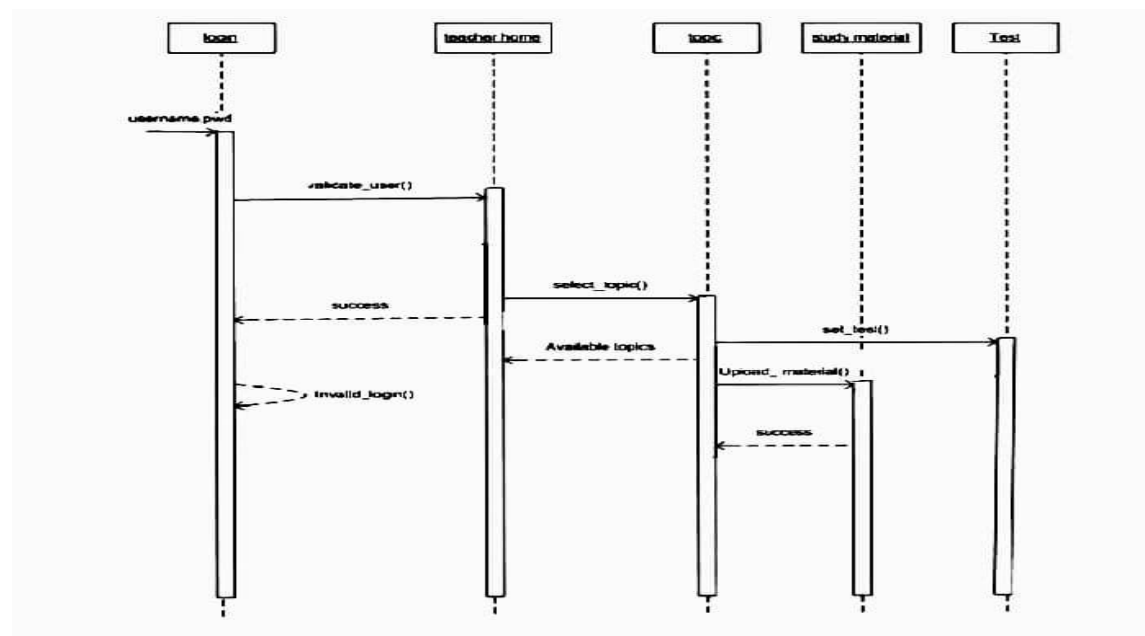


Fig 3.2.4 Class Diagram

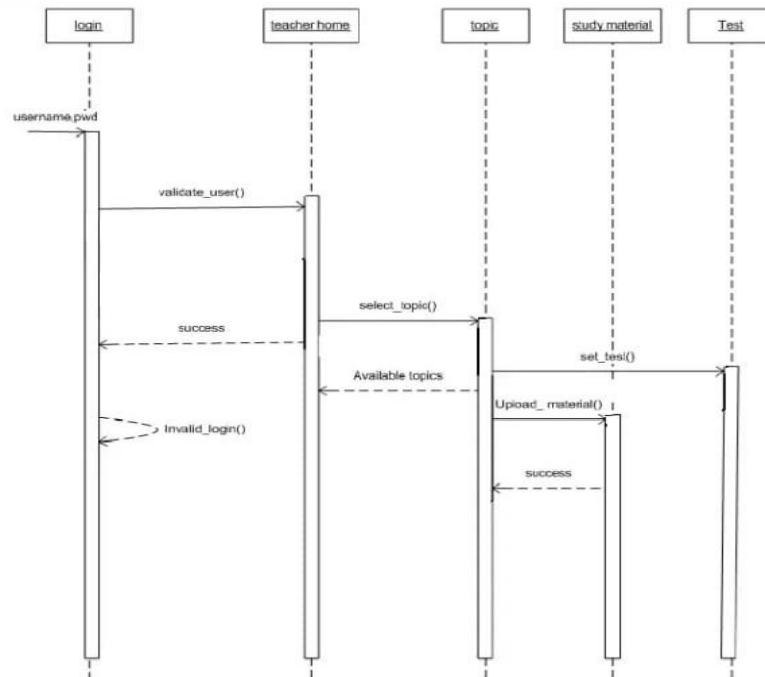
### 3.2.5 Sequence Diagram

A sequence diagram is the most commonly used interaction diagram.

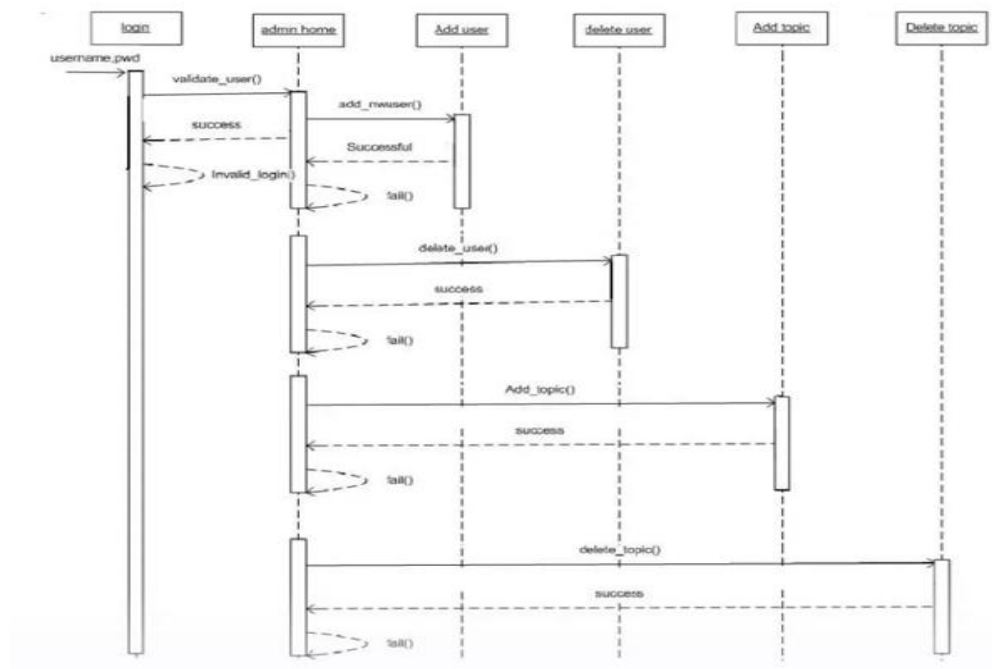
- **Interaction diagram:-**An interaction diagram is used to show the **interactive behavior** of a system. Since visualizing the interactions in a system can be a cumbersome task, we use different types of interaction diagrams to capture various features and aspects of interaction in a system.
- **Sequence Diagrams:-**A sequence diagram simply depicts interaction between objects in a sequential order i.e. the order in which these interactions take place. We can also use the terms event diagrams or event scenarios to refer to a sequence diagram. Sequence diagrams describe how and in what order the objects in a system function. These diagrams are widely used by businessmen and software developers to document and understand requirements for new and existing systems.



**Fig 3.2.5 Teacher Sequence Diagram**



**Fig 3.2.5 Student Sequence Diagram**



**Fig3.2.5 Admin Sequence Diagram**



# **CHAPTER 4**

## **IMPLEMENTATION AND TESTING**

## 4.1 SYSTEM IMPLEMENTATION

System Implementation is the completing, execution, or routine with regards to an arrangement, a technique, or any outline, thought, display, particular, standard or strategy for accomplishing something. All things considered, execution is the activity that must take after any preparatory reasoning with the end goal for a remark happen. The practical work done on the application to date includes the installation and configuration some development tools. The development software utilized thus far are:

- **WORDPRESS**

WordPress is a content management system (CMS) that allows you to host and build websites. WordPress contains plugin architecture and a template system, so you can customize any website to fit your business, blog, portfolio, or online store. WordPress was originally created as a blog-publishing system but has evolved to support other web content types including more traditional mailing lists and forums, media galleries, membership sites, learning management systems (LMS) and online stores. One of the most popular content management system solutions in use, WordPress is used by 42.8% of the top 10 million websites as of October 2021. To function, WordPress has to be installed on a web server, either part of an Internet hosting service like WordPress.com or a computer running the software package WordPress.org in order to serve as a network host in its own right.<sup>[10]</sup> A local computer may be used for single-user testing and learning purposes.

There are ten easy steps to getting started on WordPress. Simply follow these , and you'll be up and running in no time at all.

### **Step 1: Define your site.**

Before you do anything involving WordPress, you need to pick your niche. Trying to develop a WordPress website about something that's been done 10,000 times isn't going to be beneficial. If your WordPress site isn't for an existing business, make sure you pick a topic that genuinely interests you so it won't feel like a chore to update your site now or months down the road.

## **Step 2: Choose a domain name.**

Your domain name should relate directly to the niche you chose in step 1, and it should be a name that's so easy for users to remember that they never forget it. Doing some keyword research can also be helpful. Stuck on a particular name, but .com is taken? Try .net or .co.

## **Step 3: Get web hosting.**

Your next step is to find a reliable web host to handle your site. Here at [HostPapa](#), we offer industry-leading servers and infrastructure. Our multilingual customer support is available via chat, email, and telephone; we also maintain an extensive knowledge base and video tutorials. What about a shared vs. dedicated server?

Shared web hosting will be just fine in most cases, and it's very popular with WordPress users. Learn more about types of web hosting below.

1. Shared Hosting
2. VPS Hosting
3. Dedicated Hosting

## **Step 4: Install WordPress.**

At the risk of stating the obvious, once you've found your web host and domain name, it's time to install WordPress and get up and running. At HostPapa, installing WordPress is incredibly easy and takes just minutes with our Softaculous script installer.

## **Step 5: Choose your WordPress theme.**

Next, you need to decide on a design theme for your WordPress site. Thousands upon thousands of themes are available, ranging from absolutely free to upwards of hundreds of dollars. When selecting your theme, try to ensure that it makes sense for both the topic of your site and the layout and content you plan to publish.

Among WordPress theme premium WordPress theme choices, you'll find a set of ready-made options for various topics. These include business, services, beauty, fashion, photography, education, food, and many others. Each of them can become an excellent base for the site that you have always dreamed about.

One of the most popular WordPress premium themes is Monstroid2 – a very lightweight multipurpose theme with a drag-and-drop builder.

#### **Step 6: Install WordPress plugins.**

A WordPress Plugin is a program written in the PHP scripting language that adds specific features or services to a WordPress website. WordPress plugins provide a great deal of customization and flexibility to your WordPress site, as well as valuable features and tools for your visitors.

You may not start with many plugins, but the longer you use WordPress, the more you'll find to benefit your site. Some of our favourites include JetPack and Yoast SEO. You can find the option of Plugins from your WordPress admin dashboard.

#### **Step 7: Complete your administrative pages.**

Important pages include your contact page, about page, privacy, and disclaimer page. Get these out of the way before you focus on adding content to your site – after all, it's easier to add them now than later, when you're done publishing all of the other, more exciting stuff! These pages also serve to protect both you and your site visitors.

#### **Step 8: Publish your WordPress site.**

After you get the important administrative pages published, it's time to start adding interesting content. Whatever your niche, you want to make sure you include plenty of quality content for your readers. Make your pages visually rich, and further, make it a priority to keep adding new content regularly. If blogging, add at least one image to every post. Not only does this give your readers something to share on social media, but it also makes your content more appealing.

Whether you decide to add content daily, weekly, or monthly, creating a content calendar will help keep you on the right track.

- **MYSQL**

The concept of a “database” isn’t unique to WordPress. In simple terms, a database is an organized collection of data. This data is stored electronically, typically on a computer system, and can be accessed at will. Databases can be of any size and level of complexity. What they all have in common is how they store a set of information in a way that makes it easy to access. The data within – such as records or files – is typically organized into rows, columns, and tables. In addition, databases are dynamic. You can add, delete, and modify the information within a database, as long as you have access to it. Databases will typically have some kind of security measures to keep unauthorized users out since the data they contain can be sensitive in nature.

WordPress uses a database management system called MySQL, which is open source software. This means you’ll sometimes hear your site’s database referred to as a “MySQL database.” MySQL is what enables the database to store information and provide you with access to it. When data needs to be stored, altered, or deleted, WordPress sends a MySQL ‘query’ to the database. This simply means instructions are sent about which data should be affected, and what should be done with it.

## **How to Access and Use Your WordPress Database**

### **Step 1: Log in to phpMyAdmin**

Since your database is stored on your site’s server, you’ll need to go through your hosting provider in order to access it. This means the process required can vary a bit, depending on the web host you’re using. However, in most cases, you’ll need to use an interface called phpMyAdmin.

## Step 2: Access Your Database and Start Making Changes

The *Databases* tab at the top of the screen is where you can see a complete list. There should be a few related to phpMyAdmin itself, and one that's named after your website. Click on the latter, and you'll see the database

## 4.2 SYSTEM TESTING

With the exception of little projects, frameworks ought not to be tried as a solitary, solid unit. Vast frameworks are worked out of sub-frameworks that are worked out of modules, which are made out of techniques and capacities. The testing procedure ought to thusly continue in stages where testing is done incrementally in conjunction with framework execution. The most generally utilized process comprises of five phases:

**1. Unit Testing:** Individual segments are tried to guarantee that they work accurately. Every part is tried autonomously without other framework segments. Unit testing involves the testing of each unit or an individual component of the software application. It is the first level of functional testing. The aim behind unit testing is to validate unit components with its performance. A unit is a single testable part of a software system and tested during the development phase of the application software. The purpose of unit testing is to test the correctness of isolated code. A unit component is an individual function or code of the application. White box testing approach used for unit testing and usually done by the developers. Whenever the application is ready and given to the Test engineer, he/she will start checking every component of the module or module of the application independently or one by one, and this process is known as Unit testing or components testing.

**2. Module Testing:** A software application contains an integration of various modules. Modules are programs written in a specific language consisting of subprograms, subroutines, functions, classes, and procedures. Module testing is a process where you need to test each unit of these modules to ensure they adhered to the best coding standards. Unless a module passes the testing phase, it cannot go for the application testing process. Module testing, aka component testing, helps to early detection of errors in application testing. Module testing is a gateway to parallel testing that allows testers to test multiple modules simultaneously. This includes the testing of

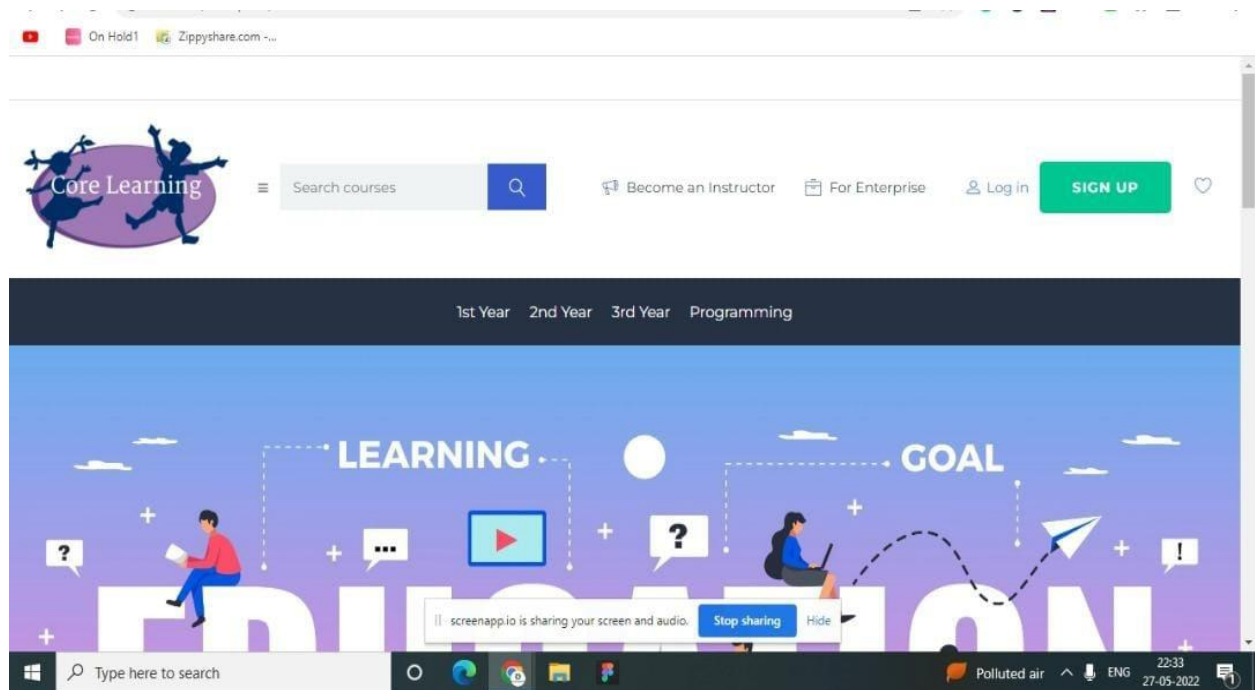
autonomous segments, for example, systems and capacities. A module epitomizes related parts so it can be tried without other framework modules. Some crucial module testing tips for a successful testing process Designing the test is the first thing to do before conducting a module test.

**3. Subsystem Testing:** This stage includes testing accumulations of modules which have been incorporated into sub-frameworks. Sub-frameworks might be freely planned. The most widely recognized issues which emerge in vast programming frameworks are sub-framework interface confounds. The sub-framework test process ought to consequently focus on the recognition of interface blunders by thoroughly practicing the interfaces.

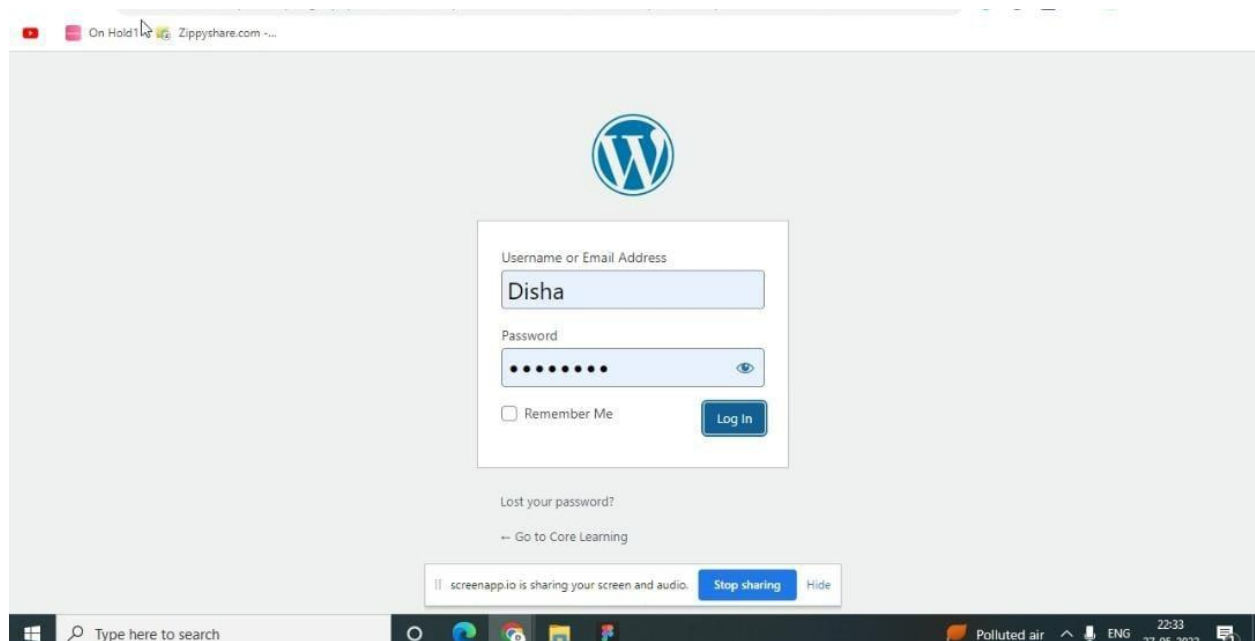
**4. System Testing:** System Testing is a level of testing that validates the complete and fully integrated software product. The purpose of a system test is to evaluate the end-to-end system specifications. Usually, the software is only one element of a larger computer-based system. Ultimately, the software is interfaced with other software/hardware systems. System Testing is actually a series of different tests whose sole purpose is to exercise the full computer-based system. Sub frameworks are coordinated to make up the whole framework. The testing procedure is worried about discovering mistakes that outcome from unexpected cooperation's between sub-frameworks and framework parts. It is likewise worried about approving that the framework meets its utilitarian and non-useful prerequisites.

**5. Acceptance Testing:** This is the last stage in the testing procedure before the framework is acknowledged for operational utilize. The framework is tried with information provided by the framework procurer as opposed to reproduced test information. Acknowledgment testing may uncover blunders and exclusions in the framework necessities definition on the grounds that the genuine information practices the framework in various routes from the test information. It might likewise uncover prerequisites issues where the framework's offices don't generally address the client's issues or the framework's execution isn't worthy.

## 4.3 SYSTEM EXECUTION

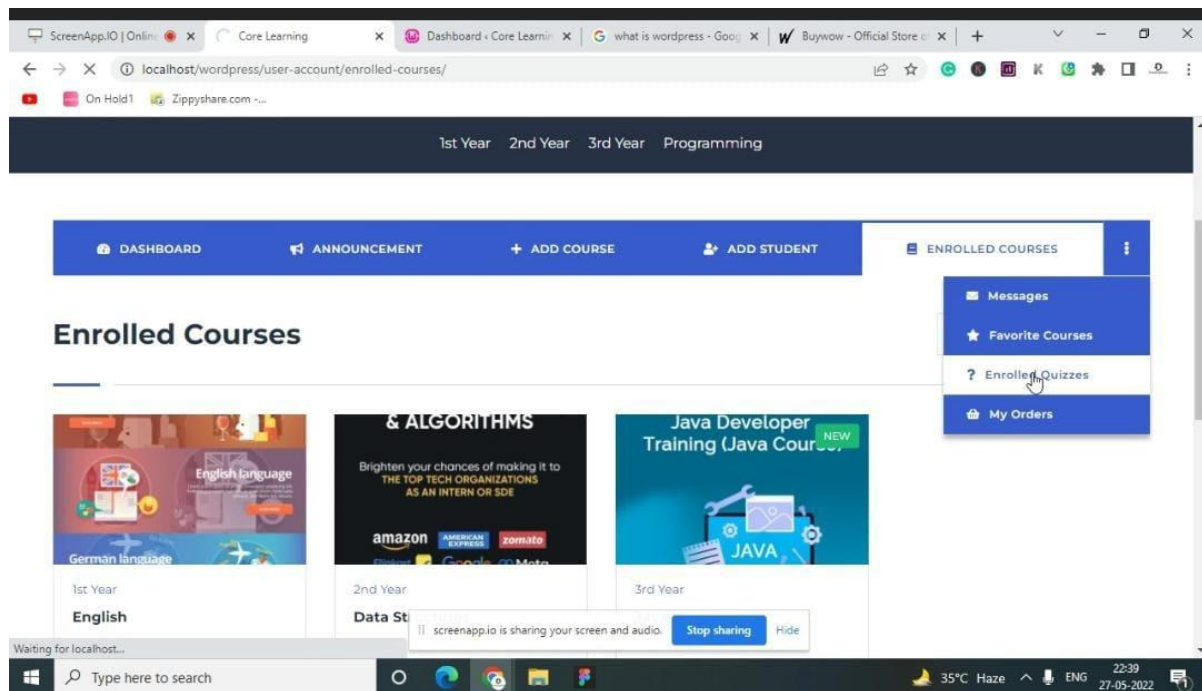


### 4.3.1 FRONT PAGE OF WEBSITE

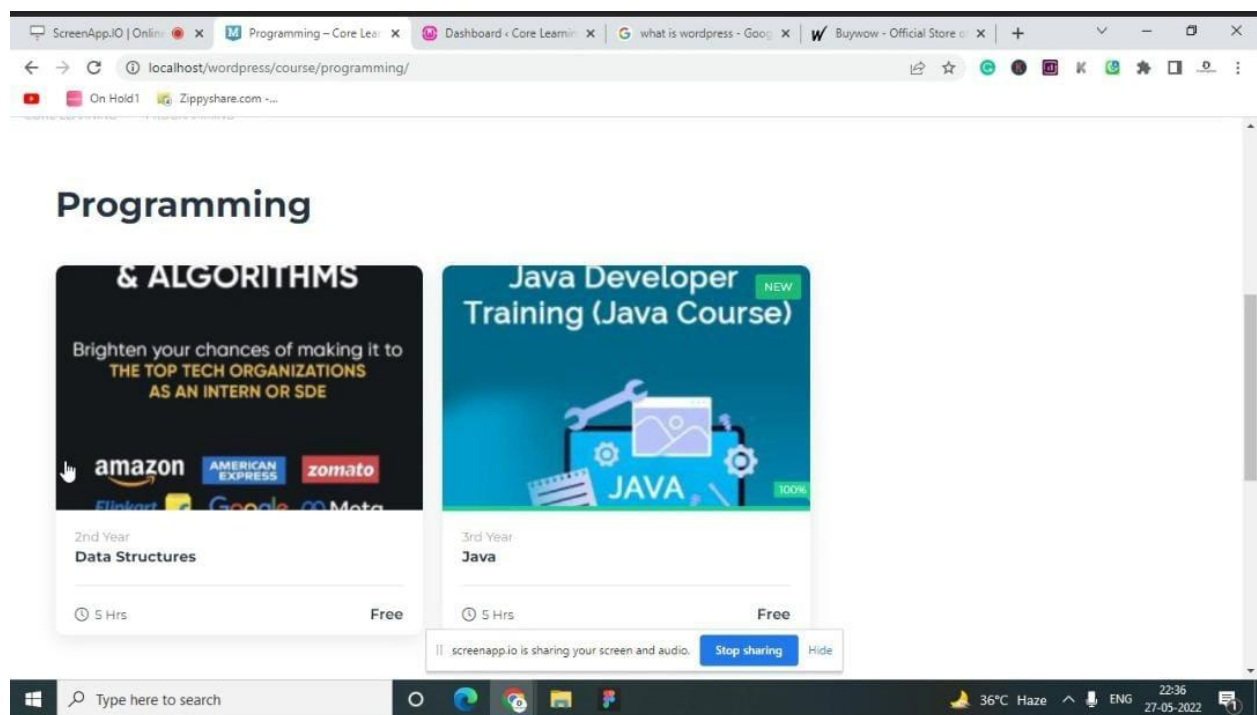


### 4.3.2 LOGIN PAGE

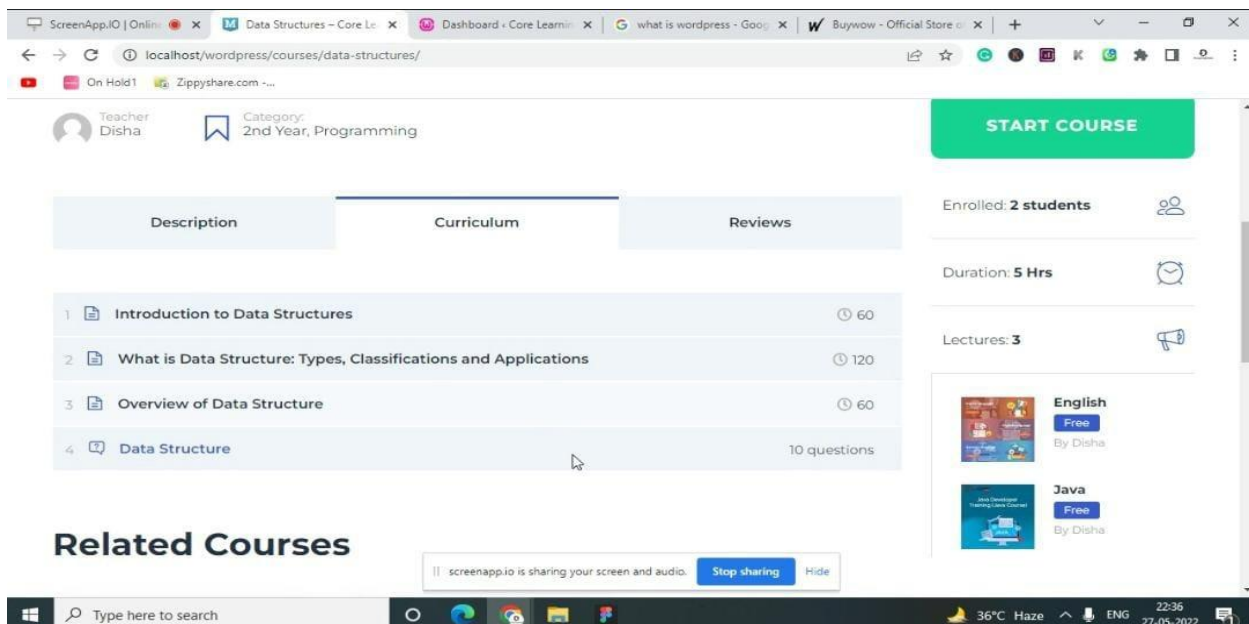




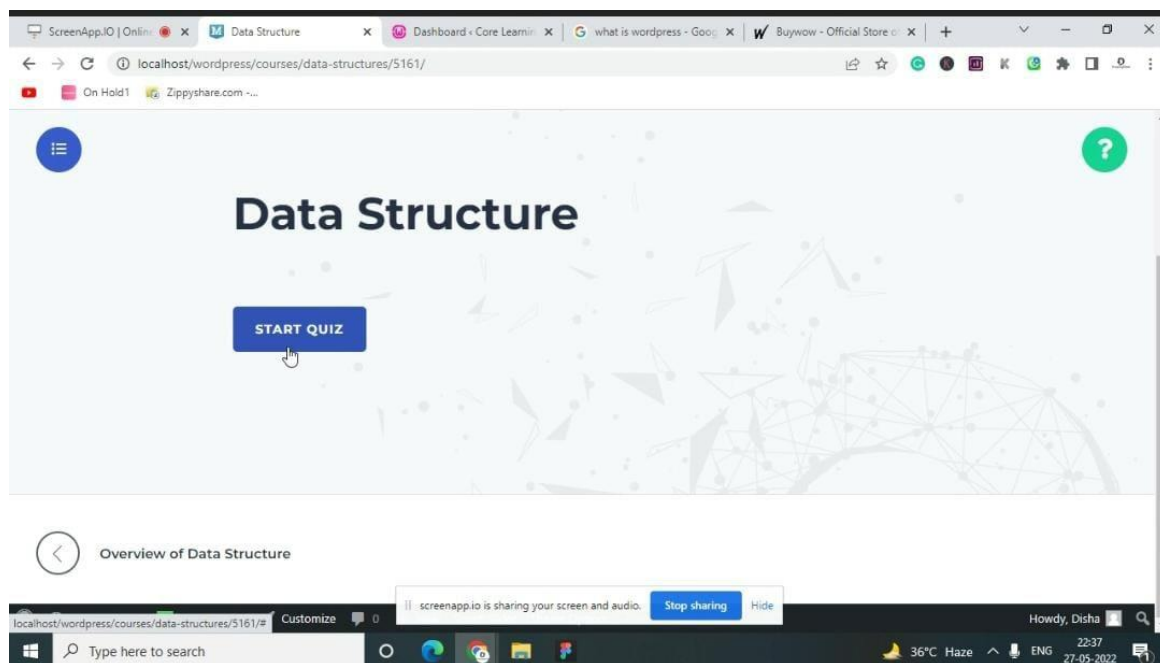
#### 4.3.3 USERS CAN ENROLL COURSES



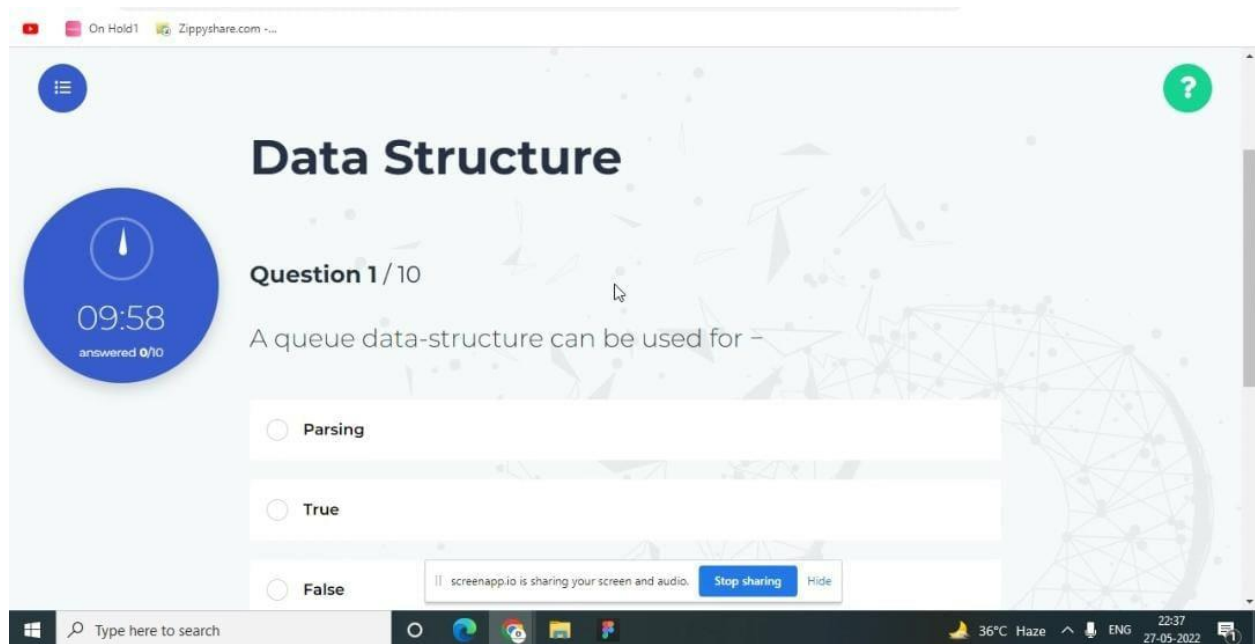
#### 4.3.4 COURSES USER CAN ACCESS



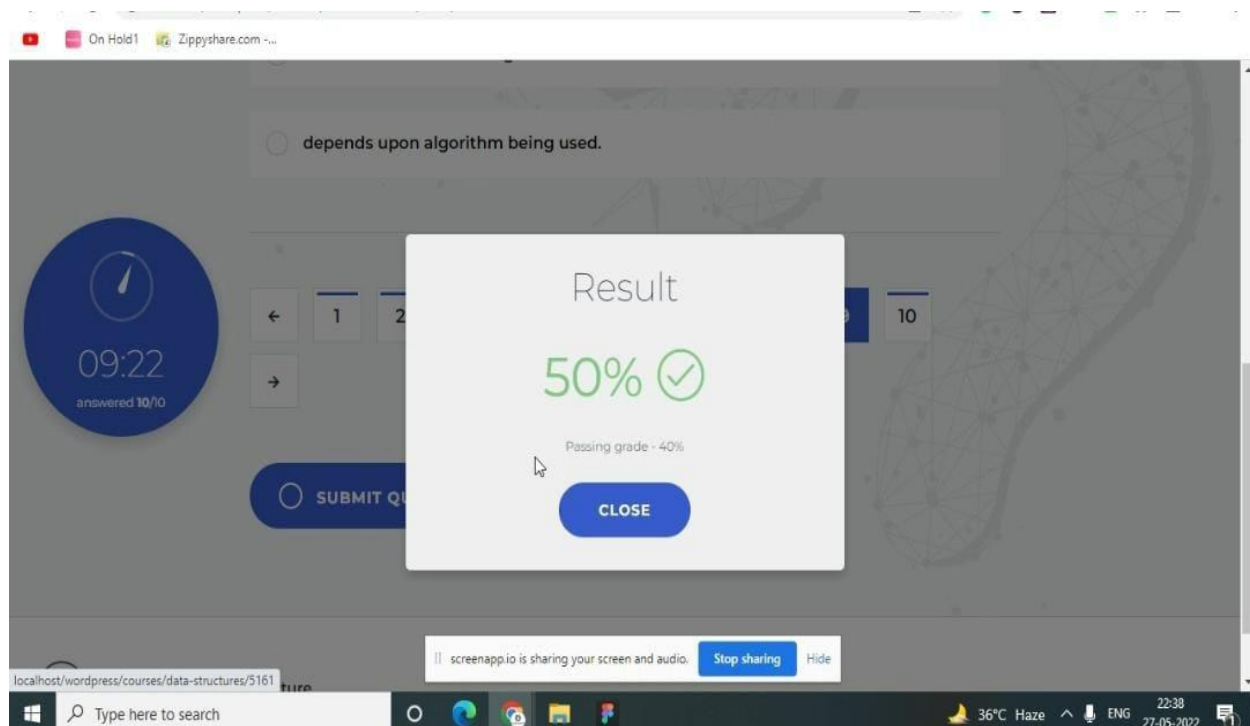
#### 4.3.5 CONTENT ADDED IN PARTICULAR COURSE



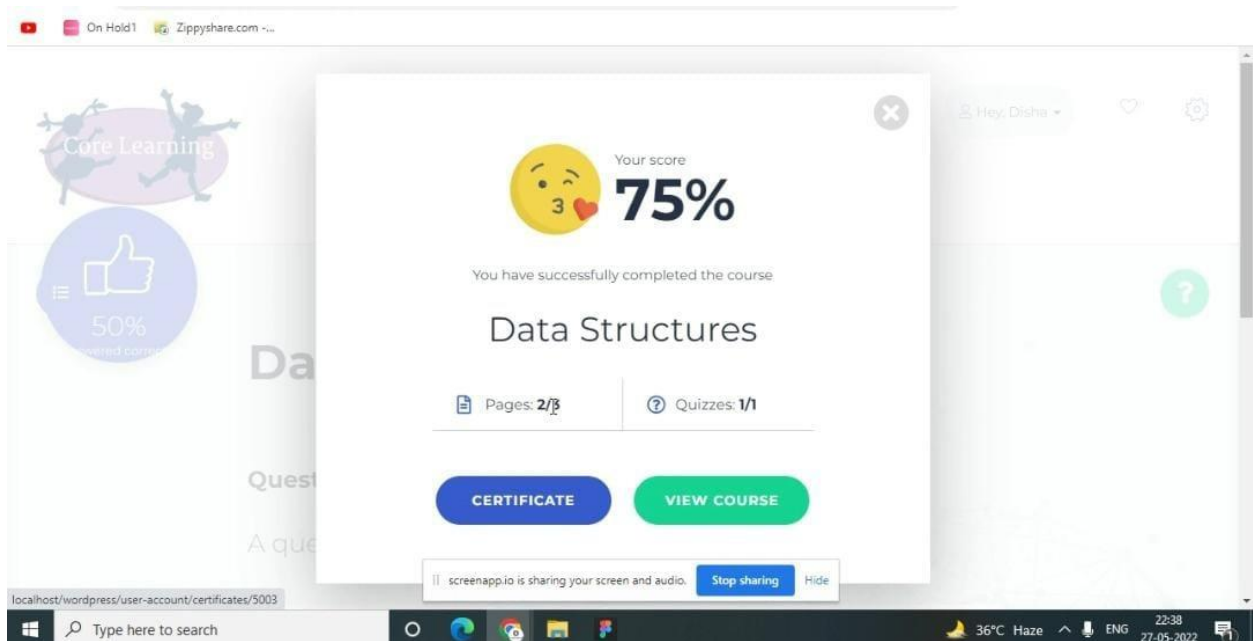
#### 4.3.6 QUIZ PANEL



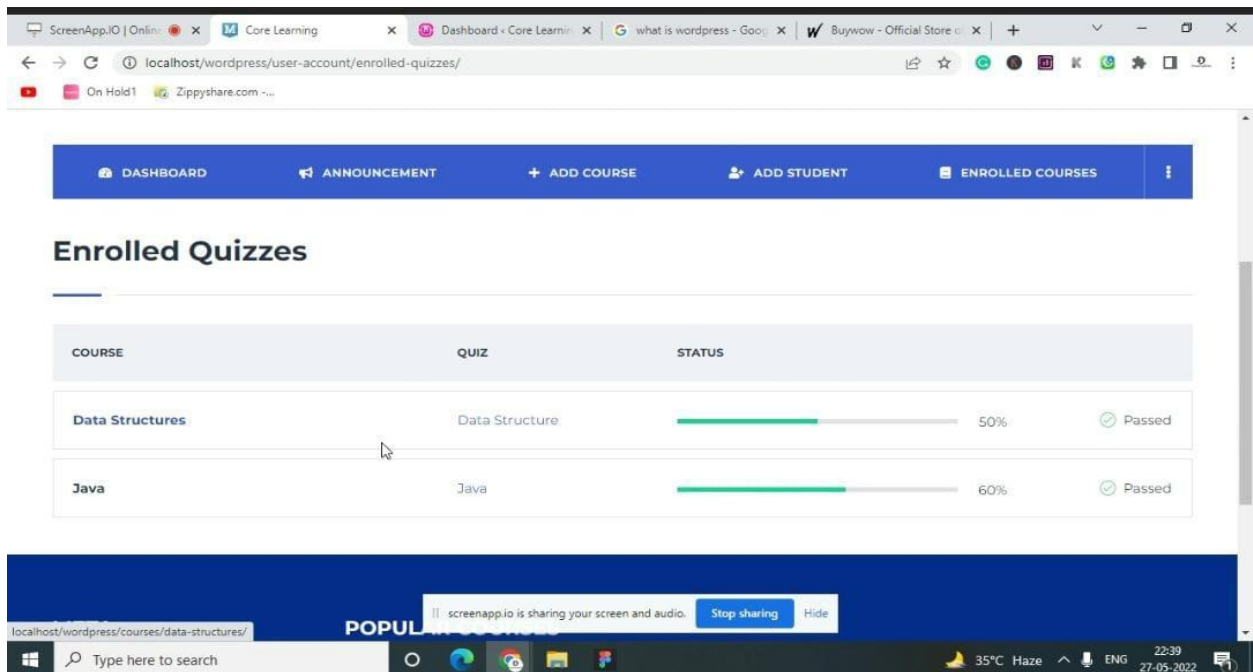
#### 4.3.7 QUIZ QUESTIONS



#### 4.3.8 RESULT OF QUIZ



#### 4.3.9 SCORE OF ATTEMPTED QUIZ



#### 4.3.10 LIST OF QUIZ USER HAS ATTEMPTED

# **CHAPTER 5**

## **FUTURE SCOPE AND CONCLUSION**

## **FUTURE SCOPE**

E-learning has rapidly evolved from a thing of the future to a practical approach towards education. It will continue to be an extremely useful classroom teaching tool as well as self-study platform. With the rise of virtual reality technology and augment reality solutions, experimental subjects, skill-based learning and military training will come to depend more heavily on e-learning solutions. Various education technology providers are also hinting towards the rise of mobile learning solutions (also known as learning) as the advanced stage of education technology in future. i phone and face time based online tutoring has also become popular and is being termed as e-learning platform. The future scope of e-learning education is in fact much wider. The e-learning, though reached India late of course, but it is being fast accepted in a big way. Due to the growing economy, World has a chance to become heart of e learning programs.

The scope of e-learning is much wider in India with many e-learning companies stepping ahead in provided that the service. In India, e-learning situation is still rising and at an investigational stage. The traditional mindsets are changing, with the corporate and business sector leading the way in embracing technology based learning networks. The term e-learning comprises a lot more than online education, virtual education, and distributed education, networked or web-based education.

As the correspondence “e” in e-learning designed for the word “electronic”, e-learning would include all learning actions that are approved out by people or assembly presentation online or offline, and synchronously or asynchronously through networked or separate computers and extra electronic devices. The future of E-learning industry in India seems to be vibrant as number of Internet users is rising in the country, at fairly a logical rate and more, and extra reputed players are showing their interest in the e-learning business.

## CONCLUSION

Our E-Learning management system critically reviewed the literature related to e-learning systems and identified some of the most influential factors used in the field of information systems research. More specifically, this project had an insight on the origins, characteristics as well as the limitations, weaknesses and strengths of web-based learning systems. Student variables, such as behavior and attitudes, cultural backgrounds and other demographic characteristics are important variables that influence student learning, especially in a collaborative e-learning environment. Understanding these variables is now helpful for instructors to design meaningful educational activities to promote student knowledge construction and make learning more effective and appealing. This can help the management achieve the most effective deployment of such system and also helps them improve their strategic decision making about technology in the future, they can decide on the best approach that fit their students before implementing any new technology.

Our project is only a humble venture to satisfy the needs to manage their project work. Several user-friendly coding has also adopted. This project shall prove to be a powerful package in satisfying all the requirements of the school. The objective of software planning is to provide a frame work that enables the manger to make reasonable estimates made within a limited time frame at the beginning of the software project and should be updated regularly as the project progresses.

At the end it is concluded that we have made effort on following points. A description of the background and context of the project and its relation to work already done in the area. Made statement of the aims and objectives of the project. The description of Purpose, Scope, and applicability. We &fine the problem on which we are working in the project. We describe the requirement Specifications of the system and the actions that can be done on these things. We understand the problem domain and produce a model of the system, which describes operations that can be performed on the system. We included features and operations in detail, including screen layouts. We designed user interface and security issues related to system.

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# **ANNEXURE**



## Certificate of Achievement

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**Mehul Mehta**  
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