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Design and Implementation of Digital Content

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A B S T R A C T

Digital learning or technology based learning or virtual classrooms is that some kind of non-conventional system of teaching as there is no need for physical activity participation and face interaction with both the tutor and learning could be performed from to anyone at any days regardless on individual comfort. E-learning is a platform that enables ICT teaching and knowledge, like the Cloud and DVDs. E-learning informs participants through teaching materials that's still completely enhanced by digital contemporary information. Online contents, sound and graphics videos, etc., learners develop peer skills and navigate ourselves via e - learning self-exams like electronic quiz, online assessments, and So on in present situation wherein students are supposed when using Technological devices for the daily lives, e-learning can become more widespread. In this paper, I have to focus on e-content layout and implementation through asynchronous method. One-way communication is an asynchronous system. Accessibility and wide distribution are the major aspects of this method.

Keywords: E-content, Internet and digital education

1. Introduction

The productive need for computing expertise in training is educational technology. As a term, it contains a variety of tools, such as media, machines and hardware for communication, as well as incorporating theoretical perspectives for their successful delivery. Online education includes multiple forms of media which provide content, sound, photographs, graphics, and streaming video, and involves applications of technology. Most e-learning systems underlie information technology, either free-standing or built mostly on regional networks and the Internet in learning analytics. Inside or outside the classroom, educational technology and e-learning should arise. It may even be peer, concurrent education, and it may be simultaneous teaching led by a trainer. It is perfect for online courses, which would be called e - learning, and also in collaboration with face-to-face teaching.

2. E-learning

An emerging paradigm which explains curriculum incorporating digital equipment and interactive technology is e-learning or 'educational technology'. It involves everything else from traditional classrooms to big courses which adopt modern tools. E-learning can include documentaries including Presentations and instructional videos using traditional classrooms. This media types can deliver information and is more interactive and interesting to learners that classrooms or a whiteboard. The widespread form of e-learning is virtual learning. Many higher education institutions today allow students to submit writing assignment and comprehensive examinations. Many higher education institutions are now going to online, which implies the learners have never had to undergo classroom teaching courses. Online programs also provide and sometimes even enable students to participate in internet discussions utilizing Google classroom another digital educational experience, in effort to keep a sense of connection.

Types of e-learning

- Synchronous learning - It refers to a cognitive activity wherein the, at the very same time, a participants interacts in learning.

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- Asynchronous learning - The tutor, the student, and some other individuals are not present simultaneously in the classroom activities. There really is no communication with many other persons in real-time.

In this paper, I have used for asynchronous method.

3. System Analysis

In order to determine its aims, system analysis is tasked with the responsibility of analyzing a process or its components. It is really a methodology of critical thinking that supports the framework and assures that almost all the program processes fit cooperatively to meet their goal [2].

3.1. Feasibility Study

Feasibility is described as that of the logical aspect to something that is necessary to effectively carry out a system implementation. An evaluation process is intended to validate functionality, but decides whether another solution considered to satisfy the requirements is realistic and feasible in the application. The purpose of the feasibility study was to assess the explanations for the development of applications that is user-friendly, flexible, and compatible with current regulations. In this work has economically and technically feasible one.

3.2. Existing System

The tools and practices used for training compose a regular classroom system. Learning activities widely used often include experiences taught. The choice of teaching methodology that can be used depends mainly on the skill or capacity that has been trained, as well as the students' competence.

3.3 Proposed System

The proposed system, I have adopted the asynchronous method using HTML5, Audacity and online Google forms.

4. System Design

Design process is really the phase for which the difference between all the application domain and the present system is connected in a functional way. The main purpose is to just get ideas for e-content creation. I also use three framework structures in this paper, like

- Logical Design - It is the process with an abstract concept of the software's flow of data, inputs and outputs.
- Physical Design - It relates to both the software's real input and output systems. This works on where and how knowledge is accessed, validated, interpreted and represented as information in a framework.
- Architecture Design - It determines the components and interaction of the process development cycle including various functionalities.
- Detailed Design - Architectural design approaches it and emphasizes on the creation of the each system.

In this paper, I have design to design the e-content structure based on University Grants Commission (UGC) guidelines [1].

4.1. ER Model Representation

This is a strategy used throughout the development of applications which allows analyze the problems between being a group's various systems.

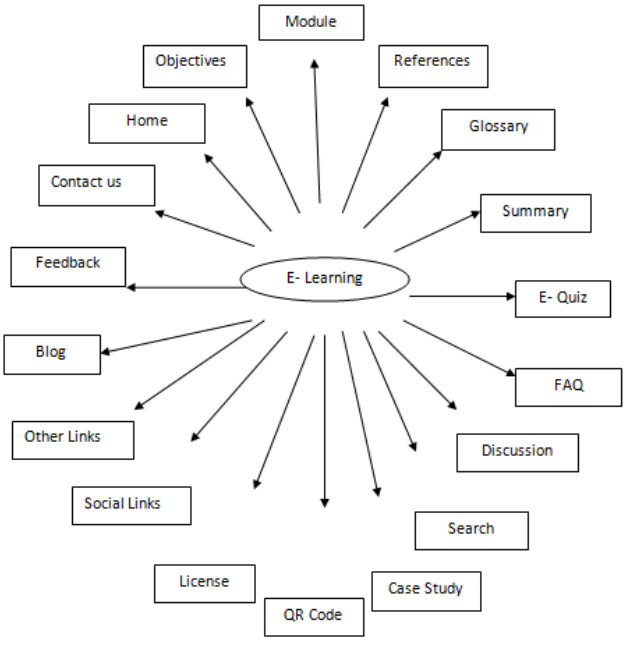
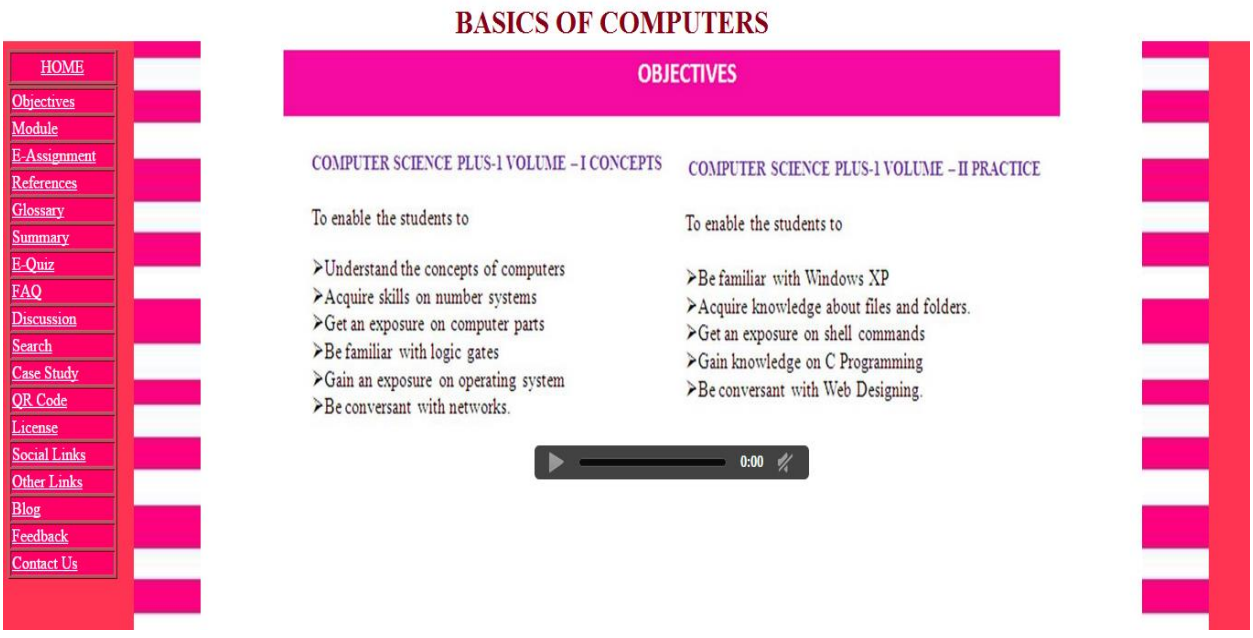


Fig 1 ER Model

4.2. Development Modules

- Home Page - It also is regarded as the e-content website's main page. This contains information of a e-content theme and writer.
- Objectives- The goals among all units are about to be covered in this section.
- Module-It demonstrates the elements among all units and correspondent contents.
- **E-Assignment–** This module shows the questions of assignment. Students are submitting the assignment through Google forms.
- **References –** It includes reference books and links for preparing the e-content.
- **Glossary –** It describes the important technical terms in alphabets.
- **Summary –** It covers the summarize the topic of e-content
- **E-Quiz –** In this module is to conduct the online quiz Google form.
- **FAQ -** It covers important questions of e-content subject.
- **Discussion –** It discuss the particular topic in the subject
- **Search** – To search particular topic
- **Case Study –** It is denoted the self-study portions.
- **QR Code –** It is easy and fast to identify the website
- **License -** To show the e-learning license for free access or paid access.
- **Social Links –** It highlights the important social media websites for technical discussion or doubts clearing.
- **Other links –** It displays the other technical materials
- **Blog –** It shows the academic details.
- **Feedback -** In this module is to collect the feedback from the students and academicians for further improvement.
- **Contact us** – It shows the author contact details.

5. Results



6. Testing

To evaluate the inputs and outputs, software testing has been used. I included two tests in this article, such as

- Unit Testing focuses to verify if the input code's functional areas were operating correctly.
- Integration Testing is the practice of measuring the synchronization or transmission of information among a few components checked by the device [2].

7. Conclusion

I built the e-learning model in this paper and created digital content utilizing asynchronous method. It is really free, quick access and user-friendly. For the use of visually impaired students, the future growth of this paper is to create audio books.

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