E-learning Portal

MINI PROJECT – I

SYNOPSIS

Department of Computer Science & Application

Institute of Engineering & Technology

SUBMITTED TO: -

Mandeep Singh

(Technical Trainer

at GLA University)

SUBMITTED BY: -

Anshika Gupta(201500112)

Yashkant Bajpai(201500830)

Acknowledgement

It gives us a great sense of pleasure to present the synopsis of the B.Tech mini project undertaken during B.Tech III Year. This project is going to be an acknowledgement to the inspiration, drive and technical assistance will be contributed to it by many individuals. We owe special debt of gratitude to Mr. Mandeep Singh, Project Mentor , for providing us with an encouraging platform to develop this project, which thus helped us in shaping our abilities towards a constructive goal and for his constant support and guidance to our work.

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Anshika Gupta(201500112)
Yashkant Bajpai(201500830)

ABSTRACT

E-learning fulfils 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. With the rapid growth of voluminous information sources and the time constraint the learning methodology has changed. Learners obtain knowledge through e-Learning systems rather than manually teaching and learning. This synopsis proposes the E-learning portal with web services oriented frame work. This system focused around the several features namely Content Management, Content Protection, Learning Management, Delivery Management, Evaluation management, Access Control, etc., and mainly focused on integrated platform needed for e-learning and managements.

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INTRODUCTION

The emergence of modern technologies has had profound impacts on the education landscape, with online learning now an integral part of the learning process. The main advantages of online learning are flexibility and accessibility. Student access to educators to assist them is no longer restricted to the hours of operation of schools and universities, but can be provided anytime and anywhere. Face-to-face tutoring is a well-established, and effective, instructional method. However, there is a need for more empirical research to be directed toward investigating users' experiences with online tutoring services, their impact on academic confidence (self-efficacy), and achievement scores. It is commonly thought that new technologies can make a big difference in education. In young ages especially, children can use the huge interactivity of new media, and develop their skills, knowledge, and perception of the world, under their parents' monitoring of course.

Many proponents of e-learning believe that everyone must be equipped with basic knowledge in technology, as well as use it as a medium to reach a particular goal and aim.

SOFTWARE AND HARDWARE REQUIREMENTS

- VS Code Version 1.72
- Git version 2.38.0
- Tomcat 4.1
- Oracle 8i
- Ethernet Adapter
- 8 GB Ram
- Window 11

PROJECT DESCRIPTION

The purpose of this project is to develop a full stack application for e-learning applications and queries using graphical user interface. It allows for flexible data format and deliver of its data so that each analysis application can receive only the information it needs and in the format required.

The project is divided into 3 modules – student, course expert and administrator. The roles of the modules are as follows:

- **Student :**
  - The student selects from various courses available.

- The student takes test on a course.
- Student can see the test schedule.
- New Users will be able to register themselves in the system as students.
- All students will be able to modify their own profile.
- Students will also have a topic-wise poll to identify the relatively tougher topics and application will have dedicated section for that topics, so that each topic be covered thoroughly.
- Students can take online classes as per their profile schedule.

- **Course Expert :**
  - Creating and modifying test questions for the course.
  - View the results of those students that have taken test for his courses.
  - Provides assignment and evaluation of assignments.
  - Schedule and take online classes.

- **Administrator:**
  - Publish tests submitted by Course Experts. Before publishing test questions it is customary to get it reviewed by admin. After going through its content either it gets approved or gets rejected**.**
  - Modify the profile of other users registered in the system.

  Change user status from inactive to active.

WORKING

- A student has to register his profile for a course, by authentication and authorization and chat with experts. A student can take online and recorded classes, send mail to instructor(s) of the course and provide feedback about the test.

  A student can view test schedule, take test to assess his knowledge, view test report and edit his/her profile.
- A course expert creates a test for the course, take online classes, upload recorded modules, test questions will reside in the Draft area if either it is saved while creating/modifying or it has been rejected by admin.
- Administrator publish tests submitted by Course Experts. Before publishing test questions it is customary to get it reviewed by admin. After going through its content either it gets approved or gets rejected. Modify the profile of other users registered in the system. Change user status from inactive to active

IMPLEMENTATION

HTML stands for Hypertext Markup Language, and is most widely used language to write web Pages, HTML defines the structure of the page, and also widely used to format web pages.

CSS stands for Cascading Style Sheets, CSS describes how HTML elements are to be displayed on screen, paper, or in other media.

Java script is a scripting language used to enhance the functionality of the browser. Java script is integrated with HTML and navigator 2.02. Java script facilitates the developer with properties related to document windows, frames, loaded documents and link. The J2EE platform specifies the logical application components within a system and defines the role played in the development process.

The J2EE platform uses a distributed multitiered application model for enterprise applications.

Java Server Pages (JSP) is a technology based on the Java language and enables the development of dynamic web sites. JSP was developed by Sun Microsystems to allow server side development. JSP files are HTML files with special Tags containing Java source code that provide the dynamic content.

Tomcat started off as a servlet specification implementation by James Duncan Davidson who worked as a software architect at Sun. He later helped in making the project open-source and in its donation by Sun to the Apache Software Foundation.

Oracle is a trade mark of Oracle Corporation and in common usage refers to the database engine (which actually looks for the data) and the range of frontend products. Oracle 8i is the largest selling SQL-based RDBMS and a most commercially useful product.

REFERENCES;

Books:

- JSP
  Web Development with java Server pages
  Duane K Fields
  Mark A Kob
- Core Servlets and JSP – Marty Hall
- Java
  Java2 Complete Reference
  Sun java Documentation
- Professional Java Server Programming
  J2EE 1.3 Edition a!
  aprèss publication

Websites:

- www.java.sun.com
- www.google.com

- www.javawrench.com
- www.javaworld.com
- www.projectdeveloper.com

Faculty Guidelines:

Mr. Mandeep Singh (Technical Trainer in GLA University)
https://github.com/Mandeep-Singh7696

GitHub Repository link:

https://github.com/Yashkant-Bajpai/E-learning-Portal.git

Project Documents : https://github.com/Yashkant-Bajpai/Mini_Project_Docs.git

Collaborator : https://github.com/anshikagupta5451