COLLEGE MANAGEMENT SYSTEM

A MINI-PROJECT REPORT

Submitted by

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BONAFIDE CERTIFICATE

Certified that this mini project **"E-LEARNING MANAGEMENT SYSTEM**"is the bonafide work of "**ASHMITA R (2116220701031)"** who carried out the project work under my supervision.

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INTERNAL EXAMINER   **EXTERNAL EXAMINER**

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ABSTRACT

The **E-Learning Management System (ELMS)** is a dynamic and interactive platform designed to enhance the teaching and learning experience by leveraging digital technologies. The system aims to bridge the gap between educators and learners by providing a unified platform for content delivery, communication, and progress tracking.

The ELMS facilitates the creation, management, and distribution of educational materials in various formats, such as text, video, and interactive assessments. It offers personalized learning experiences by adapting content based on individual learning paces and preferences. Key features include user-friendly dashboards for students and instructors, course enrollment, automated grading, real-time feedback, and performance analytics.

The system ensures accessibility through mobile and desktop compatibility, enabling learners to access resources anytime, anywhere. Security and scalability are emphasized to support a wide range of users, from small institutions to large organizations. By integrating modern technologies like AI for recommendation systems and data analytics, ELMS provides insights into learner behaviors and improves curriculum development.

This project addresses the growing demand for flexible and efficient learning solutions, empowering educators to deliver quality education while enabling learners to achieve their academic goals in a structured, engaging, and efficient manner.

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CHAPTER 1

1.1 INTRODUCTION

An E-Learning Management System (ELMS) is a digital platform that facilitates online education by providing tools for creating, managing, and delivering educational content. It enables seamless communication between educators and learners, supports personalized learning, and tracks performance to enhance the teaching and learning experience.

1.2 SCOPE OF THE WORK

The scope of the E-Learning Management System (ELMS) is to provide a comprehensive platform for online education, enabling institutions to manage courses, deliver content, and assess learner performance effectively. It supports personalized learning, real-time feedback, and analytics to improve the educational experience. The system ensures accessibility across devices, catering to diverse users and learning environments. Additionally, it is scalable and secure, making it suitable for both small and large-scale implementations.

1.3 PROBLEM STATEMENT

The traditional education system often faces challenges such as limited access to resources, lack of personalized learning, and inefficient communication between educators and students. With the increasing demand for flexible and accessible learning solutions, there is a need for a platform that bridges these gaps. The **E-Learning Management System (ELMS)** addresses these issues by providing a centralized platform to deliver, manage, and track educational content, fostering an engaging and efficient learning environment for all stakeholders

1.4 AIM AND OBJECTIVES OF THE PROJECT

The aim of the **E-Learning Management System (ELMS)** is to develop an intuitive and comprehensive platform that enhances the teaching and learning experience. It provides educators with tools for efficient content delivery, course management, and performance tracking, while offering students an accessible and personalized learning environment. The system aims to improve communication, streamline administrative tasks, and provide a flexible, scalable solution for both learners and educators in diverse educational settings.

The main objective of ELMS is to create a user-friendly system that supports **personalized learning**, real-time feedback, and performance monitoring, making learning more engaging and effective. It seeks to simplify **administrative functions** such as course creation, grading, and attendance tracking, allowing educators to focus on teaching. The system will ensure **secure access**, scalability, and compatibility across various devices to meet the needs of different educational institutions. Additionally, ELMS will include tools for **analytics and reporting**, enabling educators to track student progress and impr

CHAPTER 2

SYSTEM SPECIFICATIONS

2.1 HARDWARE SPECIFICATIONS

- **Server:**
  - Processor: Intel i5 or higher (Dual-core)
  - RAM: Minimum 8 GB
  - Storage: 500 GB SSD or higher
  - Network: 100 Mbps internet connection
- **Client:**
  - Processor: Intel i3 or equivalent
  - RAM: 4 GB minimum
  - Storage: 50 GB free space
  - Network: Stable internet connection for smooth access

2.2 SOFTWARE SPECIFICATIONS

Operating System   :   Linux (Ubuntu/CentOS) or Windows Server

Front – End   :   HTML, CSS, BOOTSTRAP

Back – End   :   PHP, MYSQL
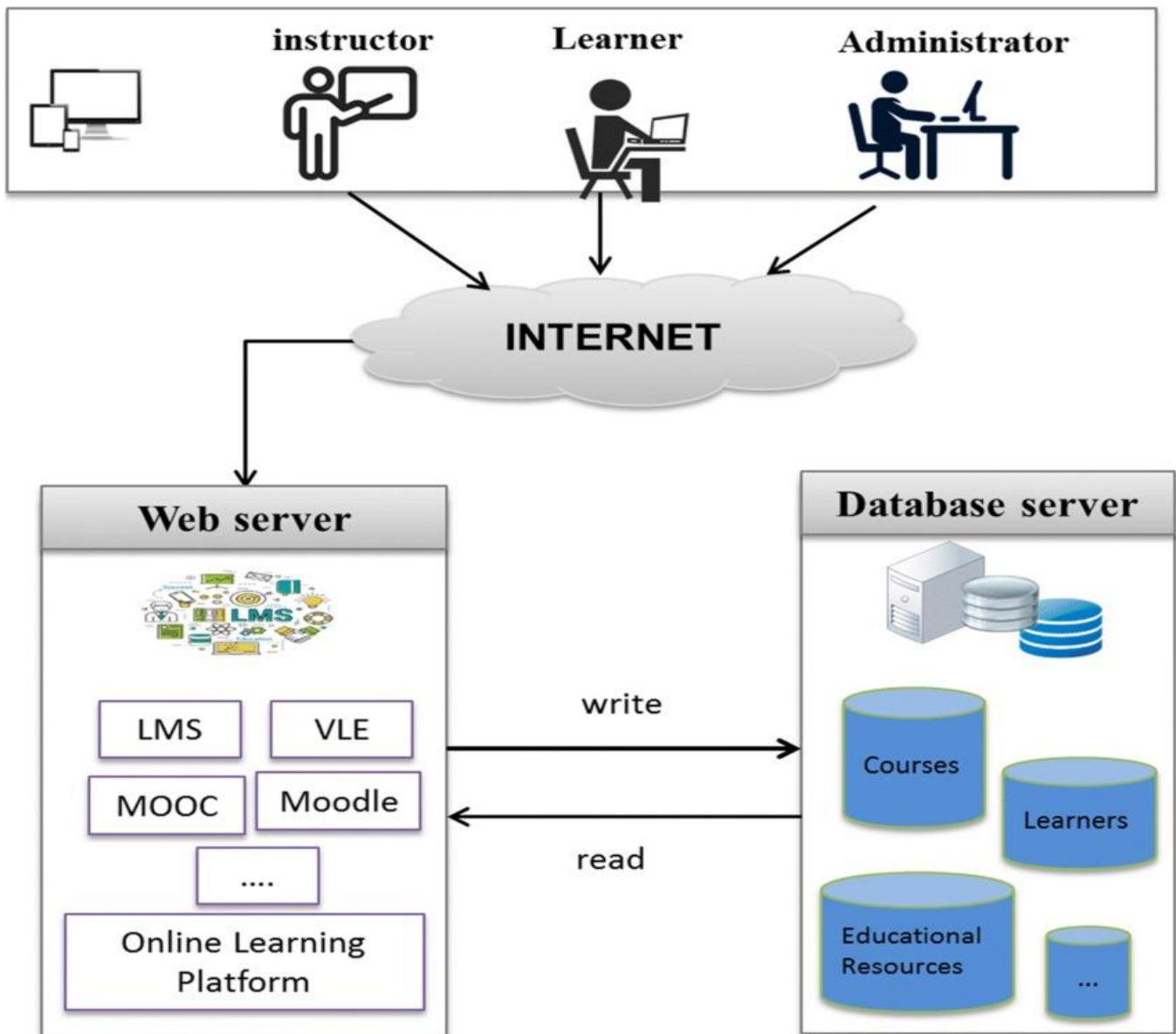
CHAPTER 3

ARCHITECTURE DIAGRAM

Fig 3.1 Architecture Diagram

An E-Learning Management System (LMS) architecture includes a user interface for interaction, a backend with servers and APIs to manage data, and a database layer for storing course content and user information. External services, such as payment gateways, may also integrate with the system. This structure ensures scalability, security, and efficient delivery of learning resources.

CHAPTER 4

MODULE DESCRIPTION

4.1 User Registration and Login:

Allows users to register for an account and securely log in to the platform using authentication protocols. Supports role-based access for students, instructors, and admins

4.2 Course Module:

Enables users to browse, enroll, and access course content. Instructors can design and organize course materials, including videos, quizzes, and documents.

4.3 Create Assignment:

Allows instructors to design and assign tasks to students with specified deadlines and guidelines. Assignments can include attachments and multimedia resources.

4.4 Upload Assignment:

Students can submit completed assignments via an easy-to-use upload interface. The system ensures timely submission tracking and plagiarism detection.

4.5 Create Course Module:

Instructors can structure and customize courses by creating modules and lessons, integrating multimedia, assessments, and supplementary materials

4.6 **Instructor Dashboard**:

Provides instructors with tools to manage courses, track student progress, evaluate assignments, and communicate with students.

4.7 Admin Dashboard:

Offers administrative controls to oversee the platform, manage users and courses, and generate analytics reports for platform performance and usage.

CHAPTER 5

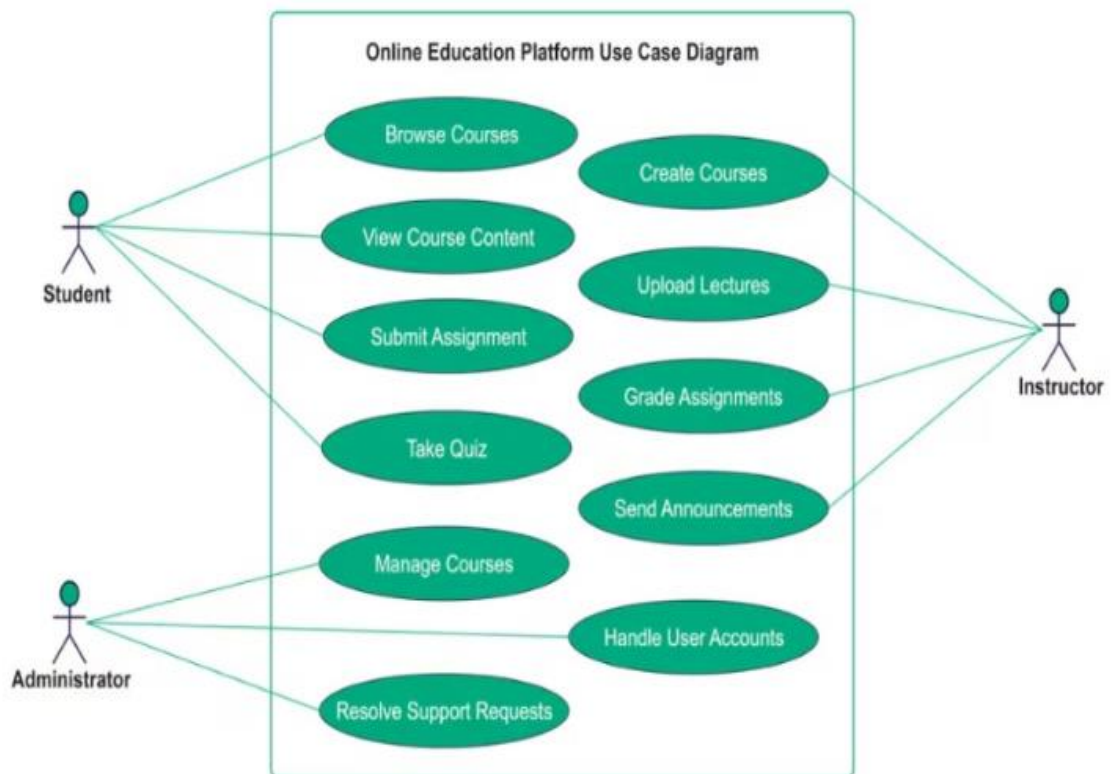## SYSTEM DESIGN

5.1 USE CASE DIAGRAM

Fig 5.1 Use Case Diagram

A use case diagram for an E-Learning Management System illustrates the interactions between users (such as students, instructors, and administrators) and the system, highlighting key functionalities like course enrollment, content delivery, assessments, and user management.
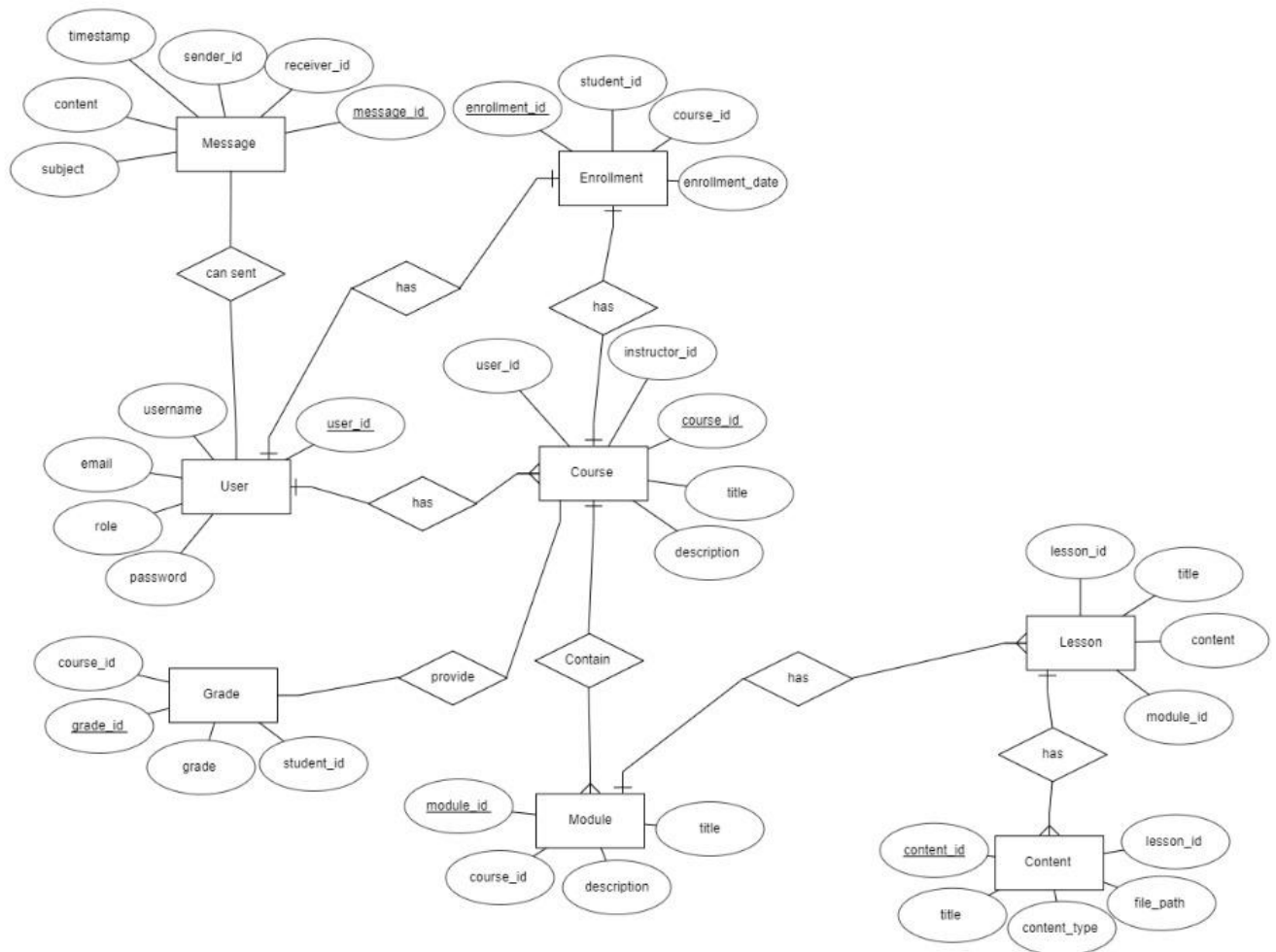
5.2 ER DIAGRAM

Fig 5.2 ER Diagram

An ER diagram for an E-Learning Management System represents entities like Students, Instructors, Courses, and Assessments, along with their relationships such as enrollment, course assignment, and grading, to visualize the system's data structure and interactions.
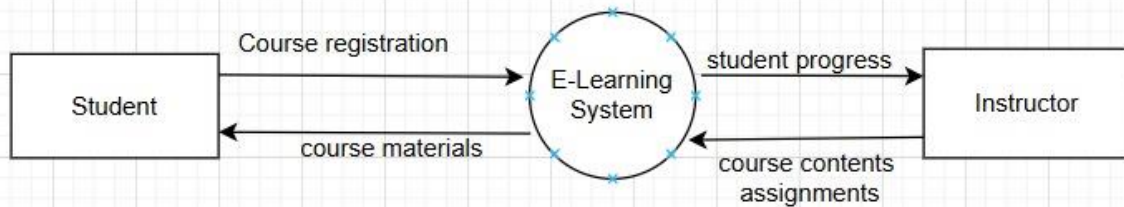
5.3 DFD DIAGRAM
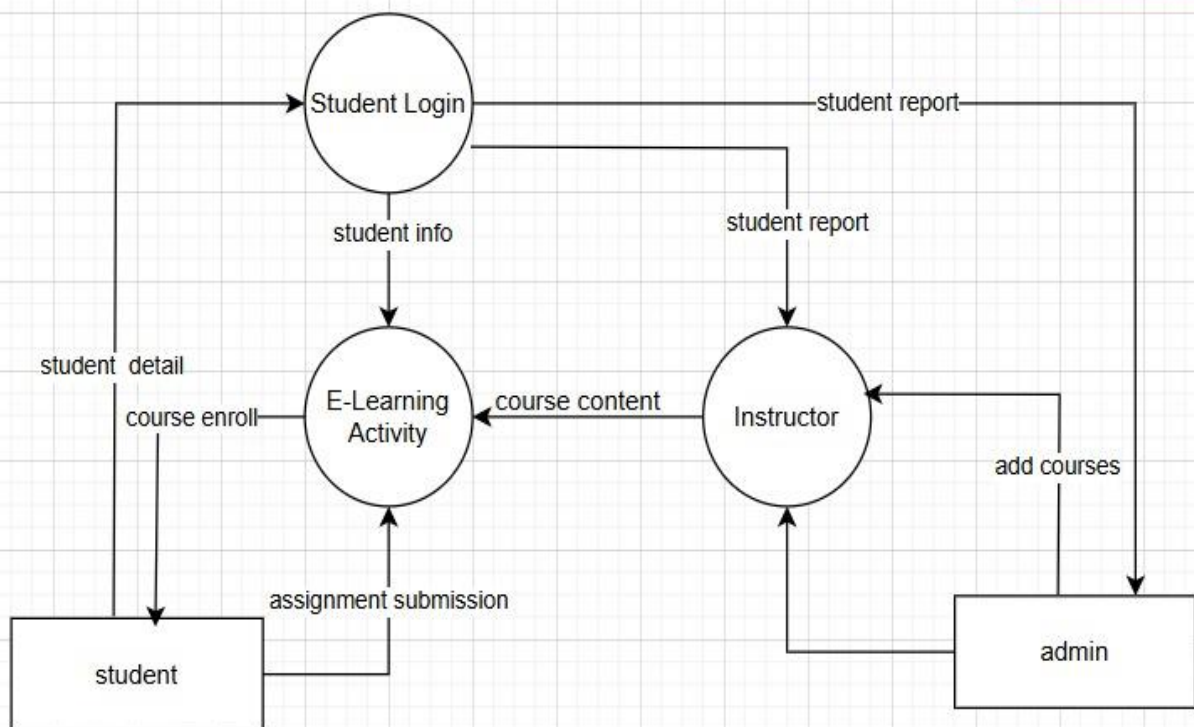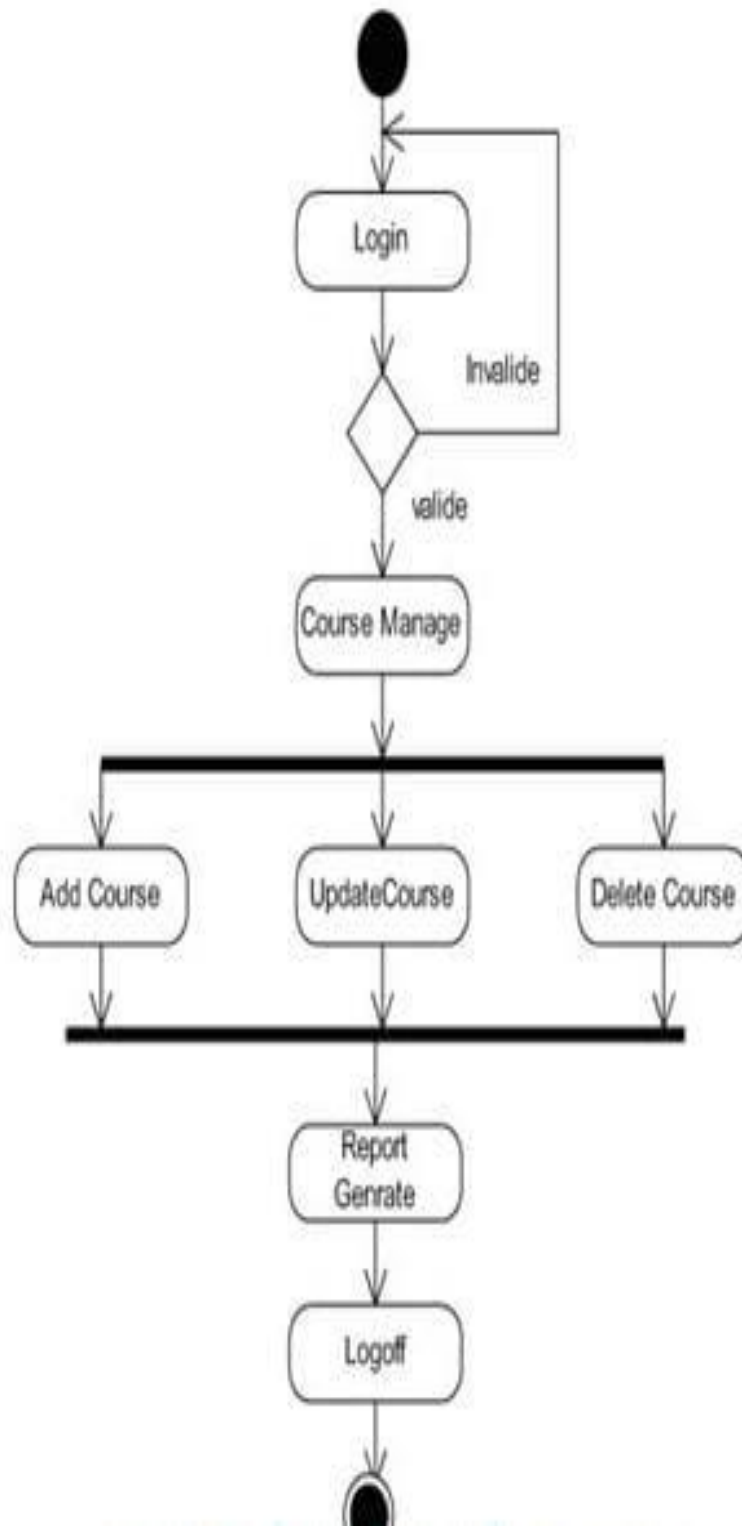

Fig 5.3.1 DFD Level-0 Diagram

Fig 5.3.2 DFD Level-1 Diagram

5.4 ACTIVITY DIAGRAM

```
                    ●

                  Login  ←──────┐
                                │
                    │           │
                    ▼           │
                   ◇───── Invalide
                    │
                  valide
                    │
                    ▼
              Course Manage
                    │
                    ▼
        ━━━━━━━━━━━━━━━━━━━━━━━
         │          │          │
         ▼          ▼          ▼
     Add Course  UpdateCourse  Delete Course
         │          │          │
         ▼          ▼          ▼
        ━━━━━━━━━━━━━━━━━━━━━━━
                    │
                    ▼
                 Report
                 Genrate
                    │
                    ▼
                 Logoff
                    │
                    ▼
                    ◉
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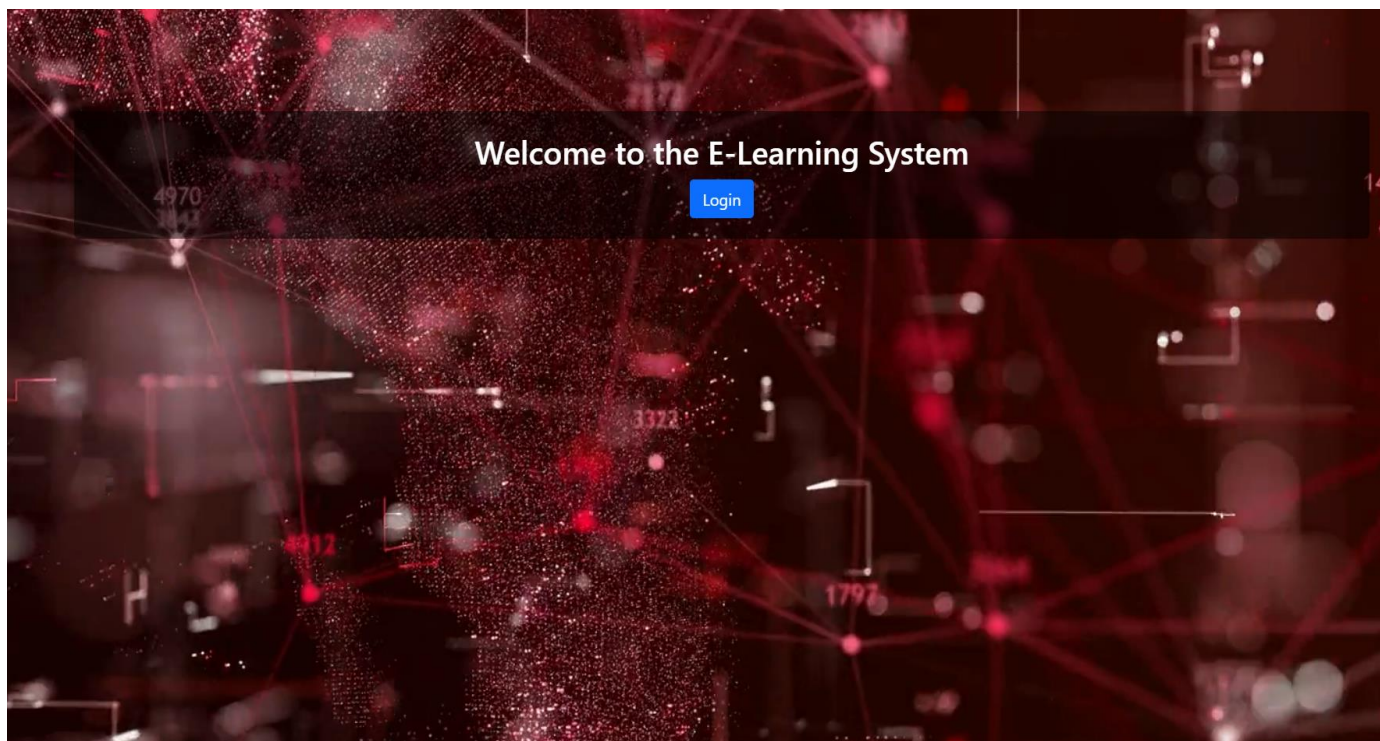
CHAPTER 6

SCREEN SHOTS

Fig. 6.1. Home Page
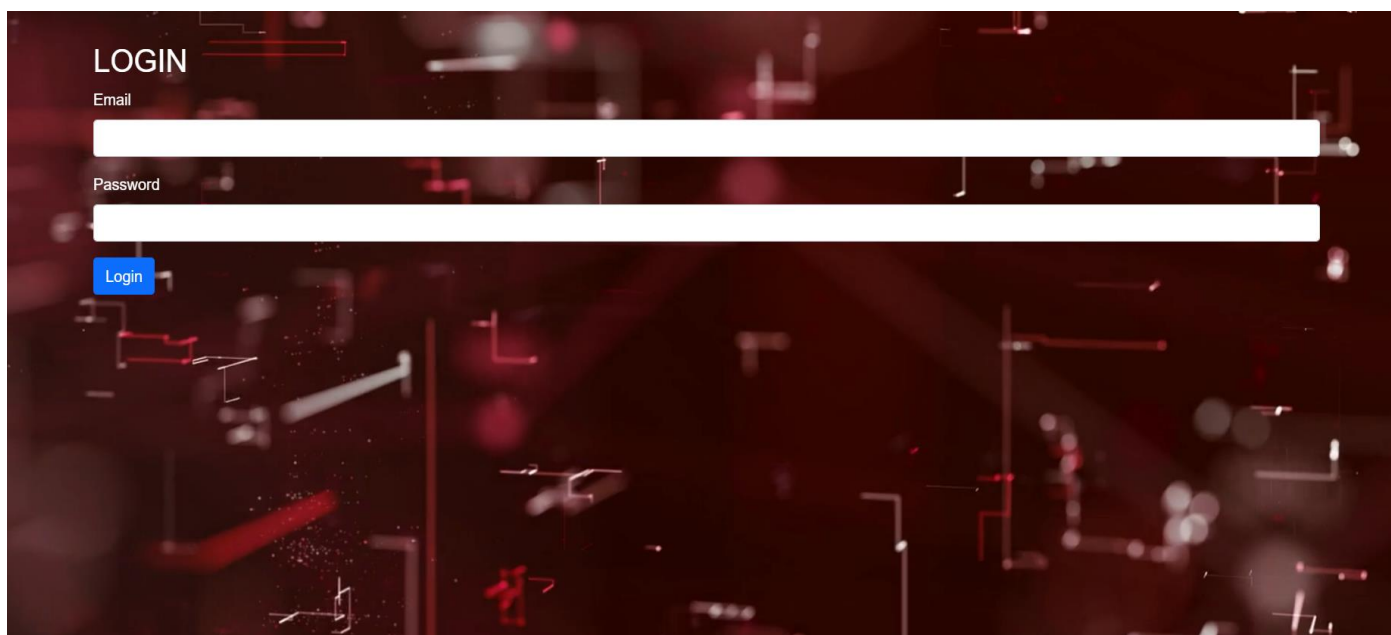From this above figure this is the home page where the student can login.

Fig. 6.2. Login page Section
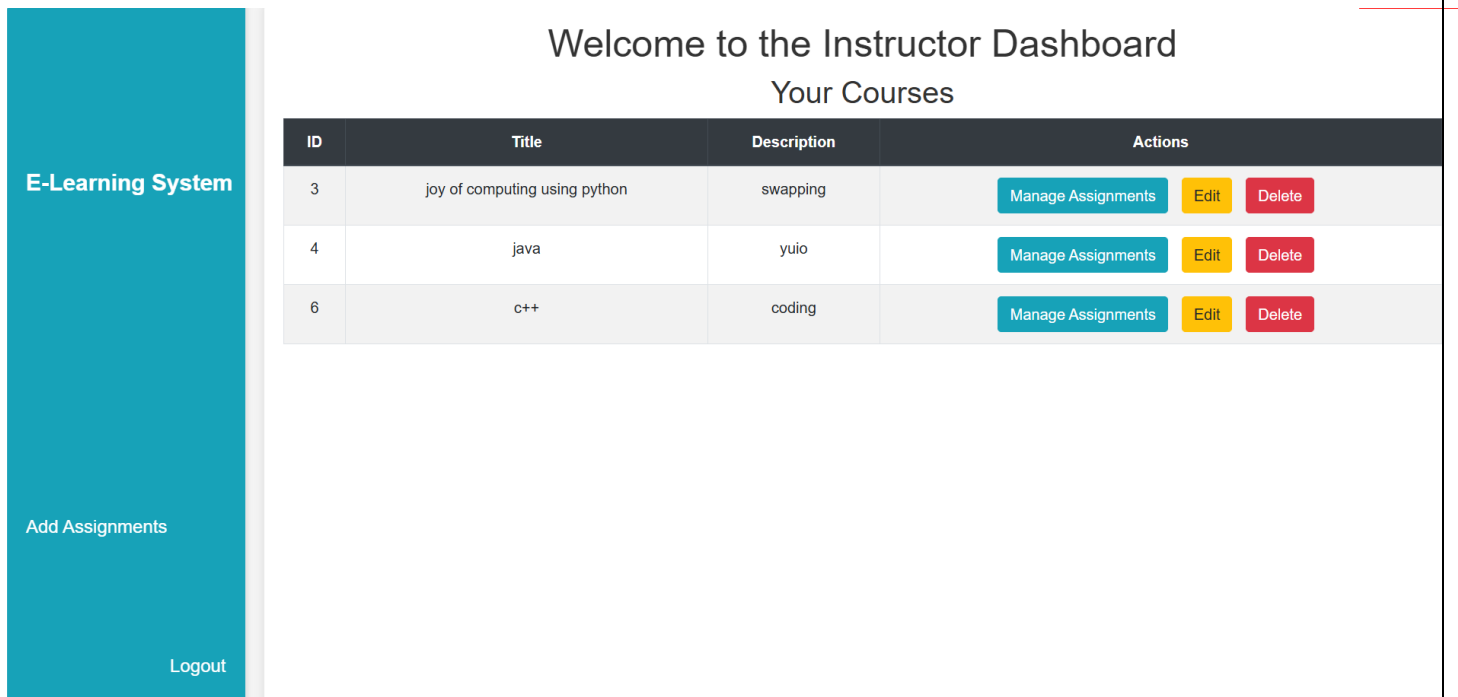From this above figure user can login the page by using their credentials.

Fig. 6.3. instructor Page

From this above figure instructor can see the detailed information about the courses.
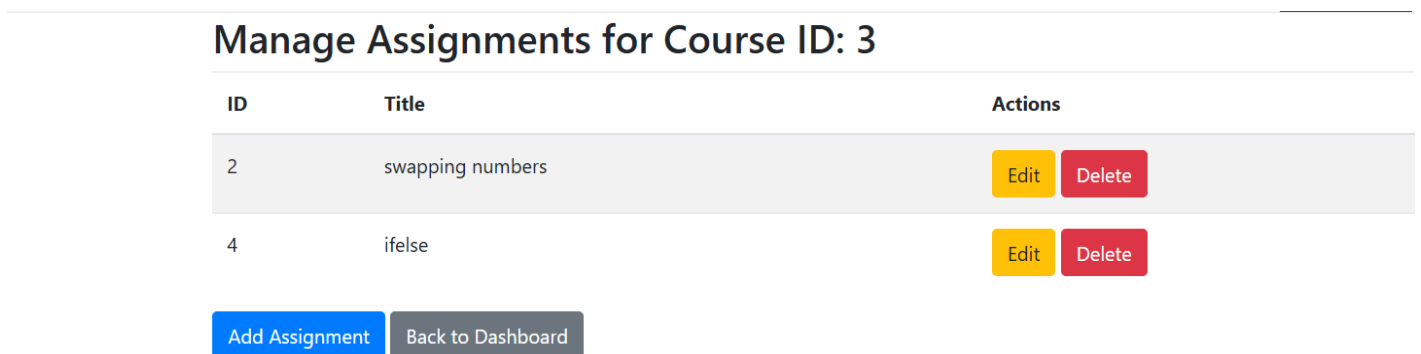

Fig. 6.4. instructor manage assignment page

From this above figure student can edit or delete an assignment

Edit Assignment

Title:

swapping numbers

Description:

create two variable and do

Save Changes   Cancel

Fig. 6.5. instructor edit assignment page
From this above figure instructor can edit the assignment.

Add New Assignment

Assignment Title

Description

Due Date

dd-mm-yyyy --:--

Select Course

Select a course

Add Assignment   Back to Dashboard

Fig. 6.6. instructor add assignment
From this above figure instructor can add new assignment to a particular course
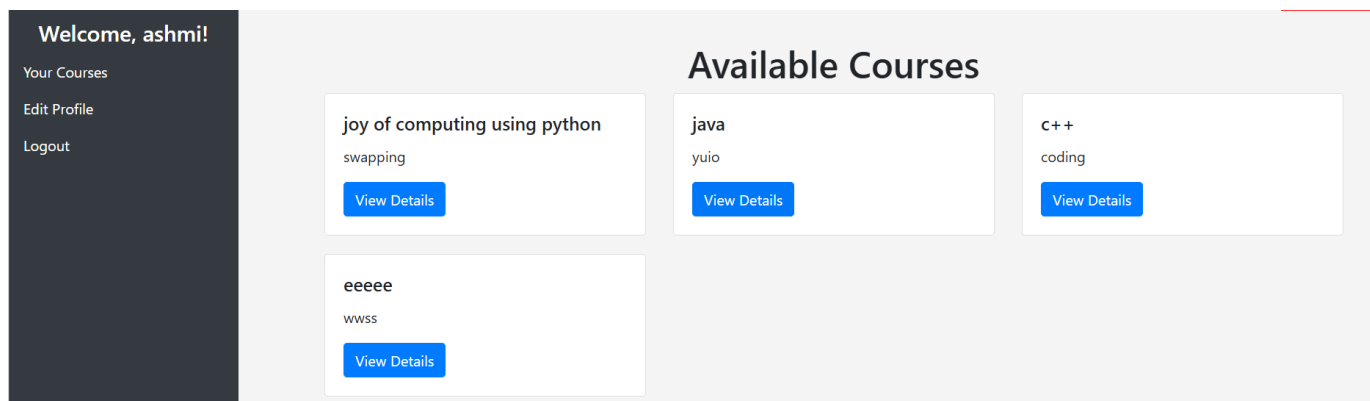
Welcome, ashmi!

Your Courses
Edit Profile
Logout

Available Courses

joy of computing using python
swapping
View Details

java
yuio
View Details

c++
coding
View Details

eeeee
wwss
View Details

Fig:6.7 Student Dashboard

From this figure student can view the courses and assignments

Assignments List

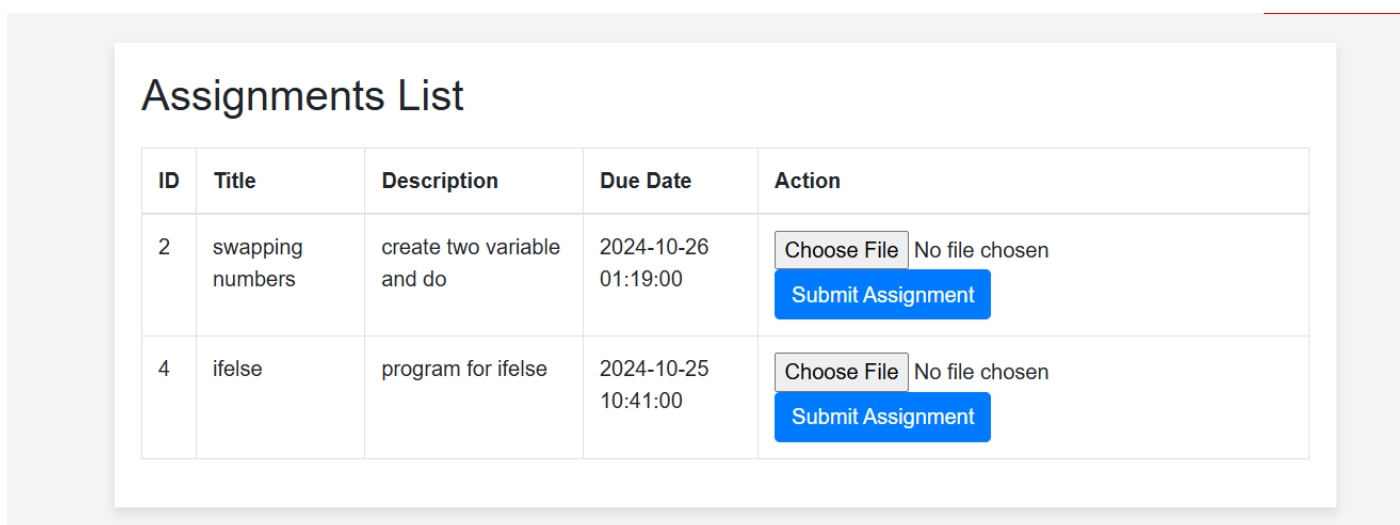| ID	Title	Description	Due Date	Action
2	swapping numbers	create two variable and do	2024-10-26 01:19:00	Choose File No file chosen Submit Assignment
4	ifelse	program for ifelse	2024-10-25 10:41:00	Choose File No file chosen Submit Assignment

Fig:6.7 Student assignments upload page

From this figure student can view the assignments and upload them

Edit Profile

Username

Email

Save Changes Cancel

Fig:6.8 Student edit profile

From this figure student can edit profile and save

Admin Dashboard

Manage Users

ID	Username	Role	Actions
3	ashmi	student	Edit
4	kavi	student	Edit
5	sanj	instructor	Edit
6	aaa	instructor	Edit
7	ttt	instructor	Edit
8	abc	admin	Edit
10	ashmit	admin	Edit
11	ashmitaa	instructor	Edit
12	usa	admin	Edit
14	as	instructor	Edit
15	afrin	instructor	Edit

Manage Courses

ID	Title	Description
3	joy of computing using python	swapping
4	java	yuio
4	java	yuio
6	c++	coding
10	eeeee	wwss

E-Learning System

Add User

Add Course

Logout

Logout

Logout

Logout

Logout

Logout

Fig:6.9 Admin Dashboard

From this figure admin dashboard were we can view the users and courses

Edit User

Username

Role

Instructor

Update User

Fig:6.10 Admin edit user

From this figure admin dashboard where admin can edit user

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Add Course

Course Title

Course Description

Instructor

Select an Instructor

Add Course

Fig:6.11 Admin add course

From this figure admin dashboard where admin can add course

CHAPTER 7

CONCLUSION

The E-learning Management System (ELMS) serves as a transformative tool in the education sector, enabling seamless and flexible learning experiences for students and instructors alike. By leveraging technology, it breaks geographical barriers, providing learners with access to high-quality educational resources anytime and anywhere. This system empowers students to take charge of their learning journeys, offering a self-paced and interactive environment where they can engage with course content, complete assignments, and track their progress. Additionally, the ELMS ensures that students stay connected with their instructors and peers, fostering collaboration and knowledge sharing.

For instructors, the E-learning Management System simplifies course delivery and administration. With features like assignment creation, course module management, and an intuitive instructor dashboard, educators can focus on providing value-rich content and personalized feedback to students. The system also enables real-time tracking of student performance, allowing instructors to identify areas for improvement and adjust teaching strategies accordingly. By offering a centralized platform for managing courses and assignments, ELMS significantly reduces administrative overhead and enhances the teaching experience.

From an administrative perspective, the system provides robust tools to manage the platform, monitor user activity, and generate insightful reports. The admin dashboard ensures smooth platform operations, addressing issues like user management, data security, and system performance. As a comprehensive solution, the ELMS not only meets the demands of modern education but also adapts to future trends in digital learning. By fostering inclusivity, accessibility, and innovation, the E-learning Management System paves the way for a more connected and efficient learning ecosystem, benefiting educators and learners in the long run.

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