**AN**
**INTERNSHIP REPORT**
**On**

# Training System

*Submitted*
*by*

**Almas Ansari**
**(211430116552)**

Guided By:
Prof. Neha Thakkar

An
**Internship Report**
Submitted to

**Gujarat Technological University**
In fulfillment for the award of degree of Bachelor of Engineering
*in*
**Information Technology**
**ACADEMIC YEAR – 2024**

**NEW L. J. INSTITUTE OF ENGINEERING AND TECHNOLOGY**
Pakwan, Behind Rajpath Club Gate to Sindhu Bhavan Road,
Sarkhej - Gandhinagar Hwy, AEC Char Rasta, Ahmedabad, Gujarat 380054

## NEW L. J. INSTITUTE OF ENGINEERING AND TECHNOLOGY

# CERTIFICATE

This is to certify that the Internship report submitted along with the project entitled Internship in **EMED HEALTHTECH PVT LTD** has been Completed by **ALMAS ANSARI** under my guidance in complete fulfilment for the Bachelor of Engineering in **Information Technology** Branch, 8th Semester of **Gujarat Technological University**, Ahmedabad during the academic year 2024.

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Place: NEW LJIET, Ahmedabad.

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**Seal of Institute**

# GUJARAT TECHNOLOGICAL UNIVERSITY

CERTIFICATE FOR COMPLETION OF ALL ACTIVITIES AT ONLINE PROJECT PORTAL

B.E. SEMESTER VIII, ACADEMIC YEAR 2023-2024

**Date of certificate generation :** 28 April 2024 (19:54:15)

This is to certify that, ***Ansari Md Almas Md Aiman*** ( Enrolment Number - 211430116552 ) working on project entitled with ***Training Management*** from ***INFORMATION TECHNOLOGY*** department of ***New L.J Institute of Engineering and Technology*** had submitted following details at online project portal.

| | |
|---|---|
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Name of Student : Ansari Md Almas Md Aiman

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*Signature of Guide : _____

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# INTERNSHIP CERTIFICATE

Date- 20/04/2024

This is to certify that Almas Ansari from Semester 8TH, Information Technology New L.J, Ahmedabad is ongoing trainee intern at EMed HealthTech Pvt. Ltd., Ahmedabad, from January 15 th 2024 to April 20th 2024.

Name- Almas Ansari

Student Roll No- 211430116552

EMED HEALTHTECH PRIVATE LIMITED
(Formerly Known As EMED PHARMATECH PRIVATE LIMITED)
Authorised Signatory/ Director

Authorized Signatory
Salim Chauhan
CEO

## NEW L. J. INSTITUTE OF ENGINEERING AND TECHNOLOGY

# DECLARATION

We hereby declare that the Internship report submitted along with the Internship entitled **TRAINING SYSTEM** submitted in Complete for Bachelor of Engineering in **Information Technology** Branch to **Gujarat Technological University**, Ahmedabad, is a bonafide record of original Internship work Completed by me at **EMED HEALTHTECH PVT LTD** under the supervision of **JAY GORANI** and that no part of this report has been directly copied from any students' reports or taken from any other source, without providing due reference.

**Name of Student** **Signature of Student**

ALMAS ANSARI

# ACKNOWLEDGEMENT

I wish to express my sincere gratitude to my **External guide JAY GORANI** for continuously guiding me at the company and answering all my doubts with patience. I would also like to thank **DR. GAYATRI PANDI (H.O.D. of IT Department)** for motivating me every time whenever I get confused, I would also like to thank my **Internal Guide PROF. NEHA THAKKAR** for helping me through my internship by giving me the necessary suggestions and advices along with their valuable co-ordination in completing this Internship.

I also thank my parents, friends and all the members of the family for their precious support and encouragement which they had provided in completion of my work. In addition to that, I would also like to mention the company personals who gave me the permission to use and experience the valuable resources required for the Internship.

Thus, in conclusion to the above said, I once again thank the staff members of **EMED HEALTHTECH PVT LTD** for their valuable support in completion of the Internship.

Thank You

**Name of Student** **Date:**

ALMAS ANSARI

**Enrollment Number** **Signature of Student**

211430116552

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# TRAINING SYSTEM

**Enrollment No: 211430116552**

**Student Name: ALMAS ANSARI**

**NEW L. J. INSTITUTE OF ENGINEERING AND TECHNOLOGY**
**(College Code:143)**

**Semester: VIII, Information Technology Department**

## ABSTRACT

The training system is a web-based platform designed for university use, facilitating seamless interaction between students and teachers. Through individual login portals, users access personalized accounts, enabling teachers to upload courses and students to subscribe to their preferred offerings.

Additionally, students possess the ability to review and provide feedback on courses, fostering an environment of continual improvement and accountability. This system streamlines the educational process, promoting effective communication and collaboration within the university community.

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# CHAPTER: 1
# INTRODUCTION

## 1.1 Introduction

Emed HealthTech Pvt Ltd is a trusted healthcare technology company providing consultancy, website development, and mobile app solutions. With a focus on innovation and client satisfaction, we offer tailored strategies and digital solutions to enhance patient engagement and streamline healthcare delivery. Our expertise spans healthcare consulting, website design, and mobile app development, ensuring comprehensive support for our clients' needs.

### 1.1.1 Company Profile

| | |
|---|---|
| **Name** | Emed Healthtech Pvt Ltd |
| **Address** | A-1201, SIDDHI VINAYAK TOWER, Makarba, Ahmedabad, Gujarat,380051, India. |
| **Email** | info@emedhealthtech.com |
| **Chief Executive Officer (CEO)** | Mr. Salim Chauhan |

**[Table 1.1.1: Company Information Table]**

Emed HealthTech Pvt Ltd is a pioneering healthcare technology company dedicated to transforming the healthcare industry through innovative solutions and services. Established with a vision to revolutionize healthcare delivery, Emed HealthTech combines expertise in healthcare consulting, software development, and digital innovation to empower healthcare organizations worldwide.

### 1.1.2 Company Products

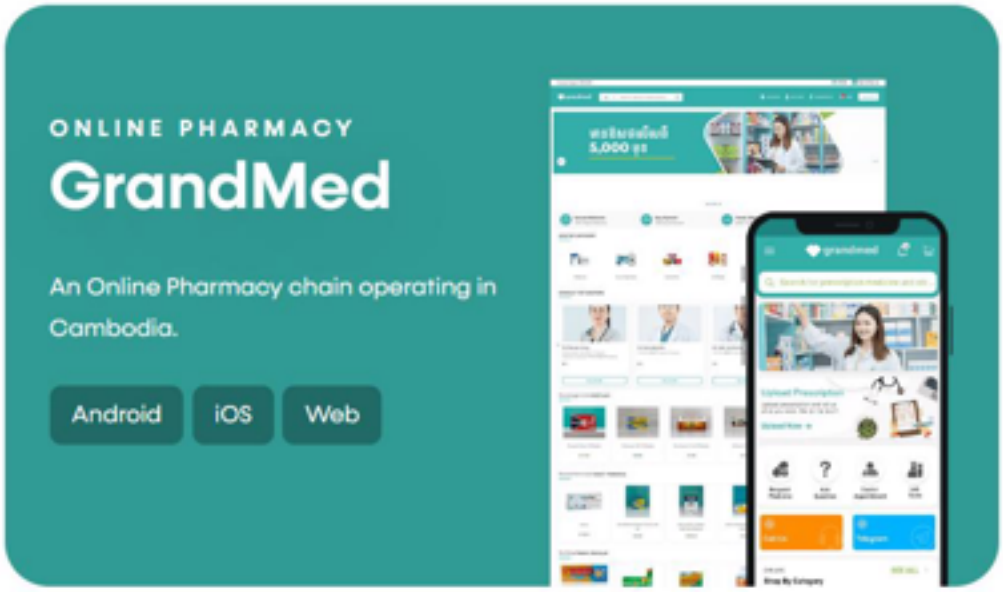


**Figure 1.1 Company Products**

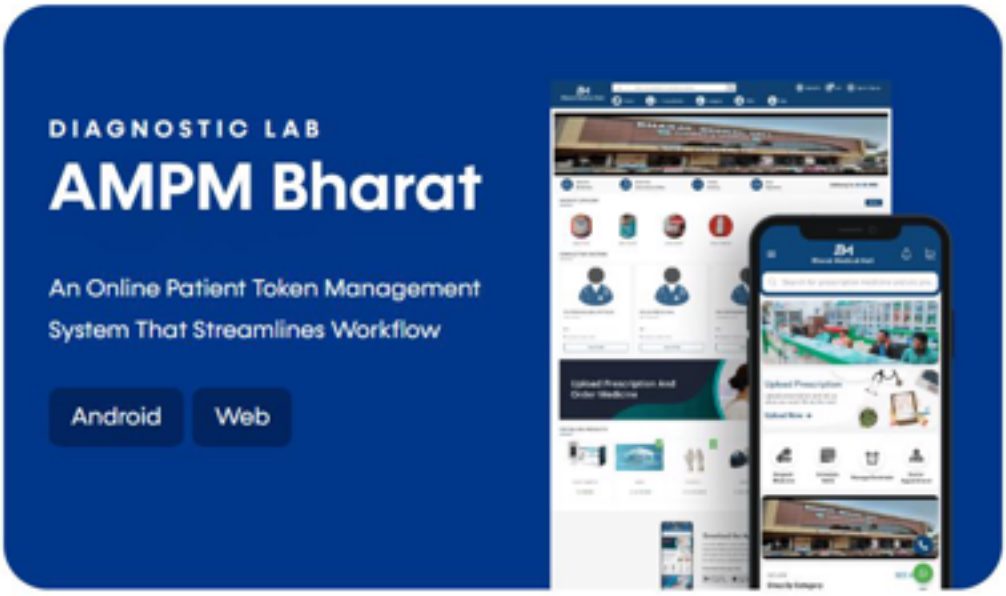


**Figure 2.2 Company Products**

### 1.1.3 Company Mission and Vision

**Mission:**

"Emed HealthTech Pvt Ltd is dedicated to empowering healthcare organizations with cutting-edge technology solutions and strategic consultancy services to enhance patient care and operational efficiency."

**Vision:**

Our vision is to ascend to the ranks of the top 5 global leaders in healthcare technology, pioneering transformative solutions and setting new standards for excellence and innovation in the industry.

## 1.2 Introduction of the Project

The project Training Management System (TMS), seamlessly integrating frontend technologies like HTML, CSS, and JavaScript with robust backend solutions such as PHP and MySQL. The TMS offers a user-friendly interface coupled with powerful functionality to deliver an unparalleled learning experience for professionals and organizations.

### 1.2.1 Purpose of the Project

The Training Management System aims to offer a dynamic platform for skill enhancement, seamlessly integrating frontend technologies with robust backend solutions. Through a user-friendly interface and powerful functionality, it facilitates efficient skill development for individuals and organizations. By bridging the gap between innovation and stability, it empowers users to adapt and succeed in today's competitive landscape.

### 1.2.2 Function Requirements

1. User authentication for secure access to the system.
2. Course management tools for administrators to add, edit, and delete courses.
3. Enrollment and progress tracking functionalities for users.

4. Support for uploading and managing various learning materials.
5. Feedback and review mechanisms for users to provide input on courses.
6. Administration tools for managing user accounts and generating reports.

### 1.2.3 Problems in existing System

1. **Communication and Support Deficiencies:** Users might face challenges in accessing support resources or communicating with instructors and peers, hindering their ability to seek assistance or collaborate effectively.
2. **User Authentication Issues:** Users might face difficulties in logging in or creating accounts due to authentication errors or password reset issues.
3. **Integration Issues:** The existing system may lack integration capabilities with external systems or APIs, limiting its functionality and interoperability with other platforms.
4. **Enrollment and Progress Tracking Problems**: Users might encounter issues with enrolling in courses or tracking their progress accurately, affecting their learning experience and motivation.

### 1.2.4 Main Modules

1. **User Management Module:** This module handles user registration, authentication, profile management, and role-based access control.
2. **Course Management Module:** Responsible for managing courses, including course creation, editing, deletion, categorization, and content uploading.
3. **Enrollment Module:** Allows users to enroll in courses and tracks their progress within each course.
4. **Feedback and Review Module:** Enables users to provide feedback and ratings for courses, as well as view and leave reviews for courses they have completed.
5. **Learning Material Management Module**: Manages various learning materials such as videos, documents, quizzes, assignments, and supplementary resources associated with each course.

# CHAPTER: 2

# System Requirements

## 2.1 Hardware & Software Requirements

### 2.1.1 Server-Side Requirements

- **XAMPP Server:** XAMPP is a software package that includes Apache (a web server), MySQL (a database management system), PHP (a server-side scripting language), and Perl. It provides a local server environment for developing and testing web applications.

### 2.1.2 Developer Side Requirements

- **XAMPP Installation:** Developers need to install XAMPP on their local machines to set up the development environment.
- **Code Editor**: Developers use a code editor such as Visual Studio Code, PhpStorm, or Sublime Text to write and edit code files.
- **Version Control System**: Git is used for version control, allowing developers to track changes to the codebase, collaborate with team members, and manage project history.

### 2.1.3 User Side Requirements

- **Internet Connection:** Users need a stable internet connection to access the web application and its features.
- **Web Browser Compatibility:** The web application should be compatible with modern web browsers like Google Chrome, Mozilla Firefox, Safari, and Microsoft Edge to ensure a consistent user experience across different platforms.
- **Device Compatibility**: The web application should be compatible with various devices including desktops, lapto ps, tablets, and smartphones to accommodate different user preferences and usage scenarios.

# CHAPTER: 3

# Daily Task

## 3.1 Work Sheet Report (15 DAYS)

## 3.1 Work Sheet Report (15 DAYS):

| **SUGGESTED 15 DAYS WORK SHEET REPORT** | | | | |
|---|---|---|---|---|
| Student Name: | Almas Ansari | | | |
| Enrollment No: | 211430116552 | | | |
| Internship/Project Title | Training System | | | |
| Tools and Technologies | Web Technologies | | | |
| Company/ Organization Name | Emed HealthTech Pvt Ltd | | | |
| Student's Activity Details: | | | | |
| **Week Number** | **Start Date to End Date** | **Tasks to be assigned** | **Tasks to be completed** | **Remarks** |
| 1 | 15-1-24 To 19-1-24 | HTML basics<br>CSS fundamentals<br>JavaScript basics | HTML forms<br>CSS fundamentals<br>JavaScript basics | |
| 2 | 22-1-24 To 26-1-24 | PHP basics<br>Functions and Forms<br>Working with Arrays and Files<br>Introduction to MySQL and Database Basics | Fundamentals of PHP<br>Utilizing Functions and Managing Forms<br>Manipulating Arrays and Handling Files<br>Getting with MySQL and Database Essentials | |

## SUGGESTED 15 DAYS WORK SHEET REPORT

| | |
|---|---|
| Student Name: | Almas Ansari |
| Enrollment No: | 211430116552 |
| Internship/Project Title | Training System |
| Tools and Technologies | Web Technologies |
| Company/ Organization Name | Emed HealthTech Pvt Ltd |

Student's Activity Details:

| Week Number | Start Date to End Date | Tasks to be assigned | Tasks to be completed | Remarks |
|---|---|---|---|---|
| 3 | 29-1-24 To 2-2-24 | PHP sessions & conn.<br>Managing SQL database | PHP sessions & conn.<br>SQL database created | |
| 4 | 5-2-24 To 8-2-24 | Creating a landing page<br>Creating UI for Login & Registration | Landing page<br>UI for Login & Registration | |

## SUGGESTED 15 DAYS WORK SHEET REPORT

| | |
|---|---|
| Student Name: | Almas Ansari |
| Enrollment No: | 211430116552 |
| Internship/Project Title | Training System |
| Tools and Technologies | Web Technologies |
| Company/ Organization Name | Emed HealthTech Pvt Ltd |

Student's Activity Details:

| Week Number | Start Date to End Date | Tasks to be assigned | Tasks to be completed | Remarks |
|---|---|---|---|---|
| 5 | 12-2-24 To 16-2-24 | Connecting logins & registrations to database(MySQL)<br>Creating necessary tables for storage | Connection to database completed<br>Various tables created | |
| 6 | 19-2-24 To 23-2-24 | Different categories to Login & pages<br>Creating Dash-board at students page<br>Optimizing code | Dash-board Created<br>Code bugs fixed | |

## SUGGESTED 15 DAYS WORK SHEET REPORT

| | |
|---|---|
| Student Name: | Almas Ansari |
| Enrollment No: | 211430116552 |
| Internship/Project Title | Training System |
| Tools and Technologies | Web Technologies |
| Company/ Organization Name | Emed HealthTech Pvt Ltd |

Student's Activity Details:

| Week Number | Start Date to End Date | Tasks to be assigned | Tasks to be completed | Remarks |
|---|---|---|---|---|
| 7 | 26-2-24 To 1-3-24 | Profile page for student & teacher<br>Connecting to sessions(PHP) | Profiles created<br>Session initialized | |
| 8 | 4-3-24 To 8-3-24 | Courses section on both<br>Connecting courses to their respective storage | Course section created<br>Also, Connection established | |

## SUGGESTED 15 DAYS WORK SHEET REPORT

| | |
|---|---|
| Student Name: | Almas Ansari |
| Enrollment No: | 211430116552 |
| Internship/Project Title | Training System |
| Tools and Technologies | Web Technologies |
| Company/ Organization Name | Emed HealthTech Pvt Ltd |

Student's Activity Details:

| Week Number | Start Date to End Date | Tasks to be assigned | Tasks to be completed | Remarks |
|---|---|---|---|---|
| 9 | 11-3-24 To 15-3-24 | ☐ Students section for teacher-side<br>☐ Database data fetching / displaying | ☐ Sections are created<br>☐ Data Fetched successfully | |
| 10 | 18-3-24 To 22-3-24 | ☐ Feedback option<br>☐ Feedback fetching / displaying section<br>☐ Storing data | ☐ Feedback stored, fetched and displayed successfully. | |

## SUGGESTED 15 DAYS WORK SHEET REPORT

| | |
|---|---|
| Student Name: | Almas Ansari |
| Enrollment No: | 211430116552 |
| Internship/Project Title | Training System |
| Tools and Technologies | Web Technologies |
| Company/ Organization Name | Emed HealthTech Pvt Ltd |

Student's Activity Details:

| Week Number | Start Date to End Date | Tasks to be assigned | Tasks to be completed | Remarks |
|---|---|---|---|---|
| 11 | 25-3-24 To 29-3-24 | Creating Course Page<br>Fetching / displaying courses<br>Storing data | Table created<br>Fetched and Displayed<br>Data Retrieved | |
| 12 | 1-4-24 To 5-4-24 | Display course on landing<br>displaying<br>Storing data | Only Displayed<br>Info required for depth section<br>Storing data | |

## SUGGESTED 15 DAYS WORK SHEET REPORT

| | |
|---|---|
| Student Name: | Almas Ansari |
| Enrollment No: | 211430116552 |
| Internship/Project Title | Training System |
| Tools and Technologies | Web Technologies |
| Company/ Organization Name | Emed HealthTech Pvt Ltd |

Student's Activity Details:

| Week Number | Start Date to End Date | Tasks to be assigned | Tasks to be completed | Remarks |
|---|---|---|---|---|
| 13 | 8-4-24 To 12-4-24 | Quiz creation<br>Fetching / displaying quiz content<br>Results retained | Table created<br>Fetched and Displayed<br>Data Retrieved | |
| 14 | 15-4-24 To 19-4-24 | quiz section for<br>displaying<br>Storing data | fetching / displaying section<br>Storing data | |

# CHAPTER: 4

# FRONT END OF SYSTEM

The frontend of the Training Management System encompasses the user-facing aspects of the application, including:

1. **User Interface Design**: Designing visually appealing and intuitive interfaces for users to interact with.
2. **HTML Structure**: Structuring web pages using HTML to define the content and layout.
3. **CSS Styling**: Styling the HTML elements using CSS to enhance the visual presentation, including colours, fonts, and layout.
4. **JavaScript Interactivity**: Adding interactivity and dynamic behaviour to the frontend using JavaScript, including form validation, dropdown menus, and interactive elements.
5. **Responsive Design**: Ensuring the frontend is responsive and accessible across various devices and screen sizes, utilizing techniques like media queries and flexible layouts.
6. **User Authentication**: Implementing user authentication features such as login and registration forms to secure access to the system.
7. **Course Listings**: Displaying listings of available courses with details such as course titles, descriptions, and instructors.
8. **Enrollment Forms**: Providing forms for users to enroll in courses, including input fields for user information and course selection.
9. **Feedback Mechanisms**: Integrating feedback mechanisms for users to provide input and ratings on courses, enhancing user engagement and satisfaction.
10. **Navigation**: Designing clear and intuitive navigation menus and links to help users navigate through the system easily.

### 4.1.1 About HTML

• HTML (Hyper Text Markup Language) is the standard markup language used to create and design documents on the World Wide Web.

• It provides the structure and content of web pages by using a system of tags and attributes to define elements such as headings, paragraphs, images, links, and more.

### 4.1.2 About CSS

• CSS (Cascading Style Sheets) is a style sheet language used to describe the presentation of a document written in HTML or XML (including XML dialects such as SVG or XHTML).

• CSS describes how elements should be rendered on screen, on paper, in speech, or on other media.

## 4.2 Why use PHP

• **Easy to Learn and Use**: PHP has a simple and easy-tounderstand syntax, making it accessible for beginners. It also integrates seamlessly with HTML, making it easy to embed PHP code within HTML pages.

• **Open Source**: PHP is an open-source language, which means it is freely available for anyone to use and modify. This has led to a large and active community of developers who contribute to its development and support.

• **Platform Independence**: PHP runs on various operating systems, including Windows, macOS, Linux, and Unix. This makes it a versatile choice for web development projects.

• **Wide Compatibility**: PHP is compatible with most web servers, including Apache, Nginx, and Microsoft IIS. It also supports a wide range of databases, including MySQL, PostgreSQL, and SQLite.

• **Built-in Functions**: PHP comes with a large number of built-in functions that simplify common tasks, such as working with arrays, strings, and files.

• **Database Support**: PHP has excellent support for database integration, with built-in support for MySQL and drivers for other popular databases like PostgreSQL, SQLite, and Oracle.

• **Scalability**: PHP is highly scalable, allowing developers to build small, simple websites as well as large, complex web applications. It can handle high traffic volumes and is used by many popular websites and applications.

• **Community Support**: PHP has a large and active community of developers who provide support, tutorials, and resources. This makes it easy to find help and solutions to common problems.

# CHAPTER: 5

# BACK END OF SYSTEM

1. **Server Environment**: Utilizing technologies like XAMPP (Apache, MySQL, PHP, and Perl) or other server setups to host the application.
2. **Database Management System (DBMS)**: Employing MySQL, PostgreSQL, or similar systems to store and manage data related to users, courses, enrollments, and feedback.
3. **Server-Side Scripting Language**: Implementing PHP or other server-side scripting languages to process requests, interact with the database, and generate dynamic content.
4. **User Authentication**: Developing authentication mechanisms to verify user identities and manage user sessions securely, including features like login, logout, and password management.
5. **Course Management**: Building functionalities for administrators and instructors to create, edit, and delete courses, manage course content, and assign instructors.
6. **Enrollment Handling**: Implementing features for users to enroll in courses, track their progress, and manage their course registrations.
7. **Feedback Management**: Integrating systems for users to provide feedback on courses, instructors, and overall user experience, including rating systems and comment sections.
8. **Logging and Monitoring**: Setting up logging and monitoring systems to track system activity, detect errors or anomalies, and troubleshoot issues effectively.

## 5.1 About MySQL

• MySQL is an open-source relational database management system (RDBMS) that is widely used for web-based applications. It is known for its reliability, flexibility, and ease of use, making it a popular choice for developers and businesses alike.

• One of the key features of MySQL is its ability to handle large volumes of data efficiently. It uses a multi-threaded, multi-user architecture to ensure that multiple users can access the database simultaneously without affecting performance. This makes it ideal for applications that require high availability and scalability.

• MySQL also supports a wide range of data types, including numeric, date and time, string, and spatial data types. This makes it suitable for storing a variety of data, from simple text strings to complex geographic information.

• Another key feature of MySQL is its support for transactions. Transactions allow you to group multiple database operations into a single unit of work, ensuring that either all of the operations succeed or none of them are applied. This helps maintain the integrity of your data and ensures that your database remains consistent.

• In addition to these features, MySQL also offers a range of security features to protect your data. This includes support for encrypted connections, user authentication, and access control, helping you keep your data safe from unauthorized access.

# CHAPTER: 6

# SYSTEM DESIGN

## 6.1 Use Case Diagram

## 6.2 Class Diagram

## 6.1 Use Case Diagram

A use case diagram is used to represent the dynamic behavior of a system. It encapsulates the system's functionality by incorporating use cases, actors, and their relationships.

It models the tasks, services, and functions required by a system/subsystem of an application. It depicts the high-level functionality of a system and also tells how the user handles a system.

- **Purpose of Use Case Diagrams**

The main purpose of a use case diagram is to portray the dynamic aspect of a system. It accumulates the system's requirement, which includes both internal as well as external influences. It invokes persons, use cases, and several things that invoke the actors and elements accountable for the implementation of use case diagrams.

- It gathers the system's needs.
- It depicts the external view of the system.
- It recognizes the internal as well as external factors that influence the system.
- It represents the interaction between the actors.

## Symbols used in Use case:

| Symbol | Description |
|---|---|
|   | Actor is an entity which interacts with the system. Actors carry out use case |
|   | The use cases represent the behavior of the system. Typically various function are represented as use cases |
|  | It identifies an interaction between actors and use cases. Each association represents a dialog. |

### 6.1.1 Use case Diagram: -

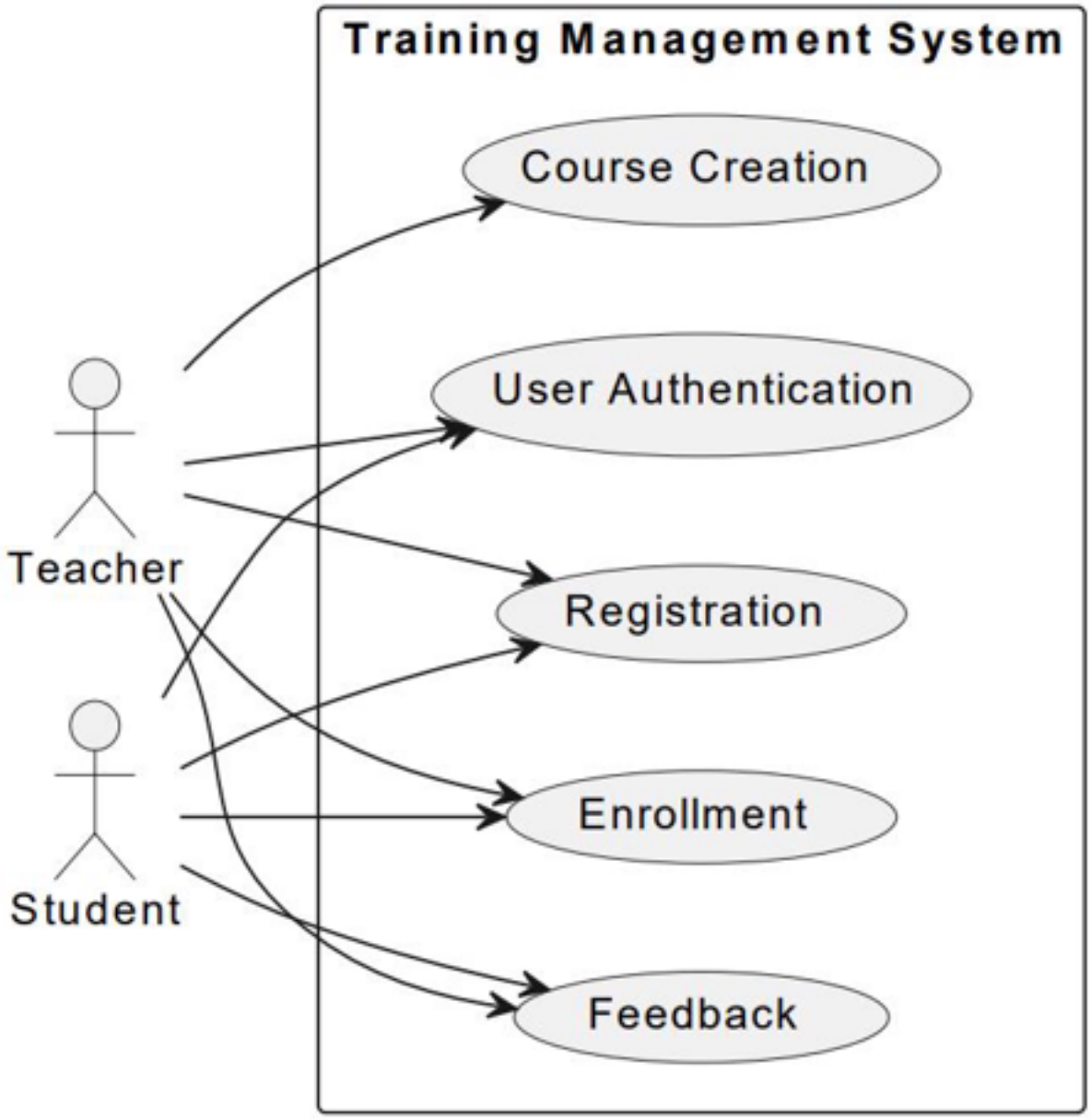


**Figure 6.1.1 Use Case diagram**

## 6.2 Class Diagram

A class diagram, a fundamental component of the Unified Modelling Language (UML), serves as a visual representation of the static structure of a software system. It depicts the classes within the system, their attributes, methods, and relationships, providing a blueprint for developers to understand, communicate, and implement the system's design.

- **Purpose of Class Diagrams**

Class diagrams provide a visual representation of the system's structure, making it easier to understand and communicate the system's design. They aid in analysing the requirements of a system and designing its architecture by identifying classes, their attributes, and relationships.

Class diagrams serve as documentation for developers, providing a blueprint for implementing the system. They facilitate communication among stakeholders, including developers, designers, and domain experts, by providing a common visual language to discuss the system's structure.

## Symbols used in Class Diagram:

| Symbol | Description |
|---|---|
|  Class | Represents a blueprint for creating objects. |
|  Association | Represents a relationship between classes. |

### 6.2.1 Class Diagram:

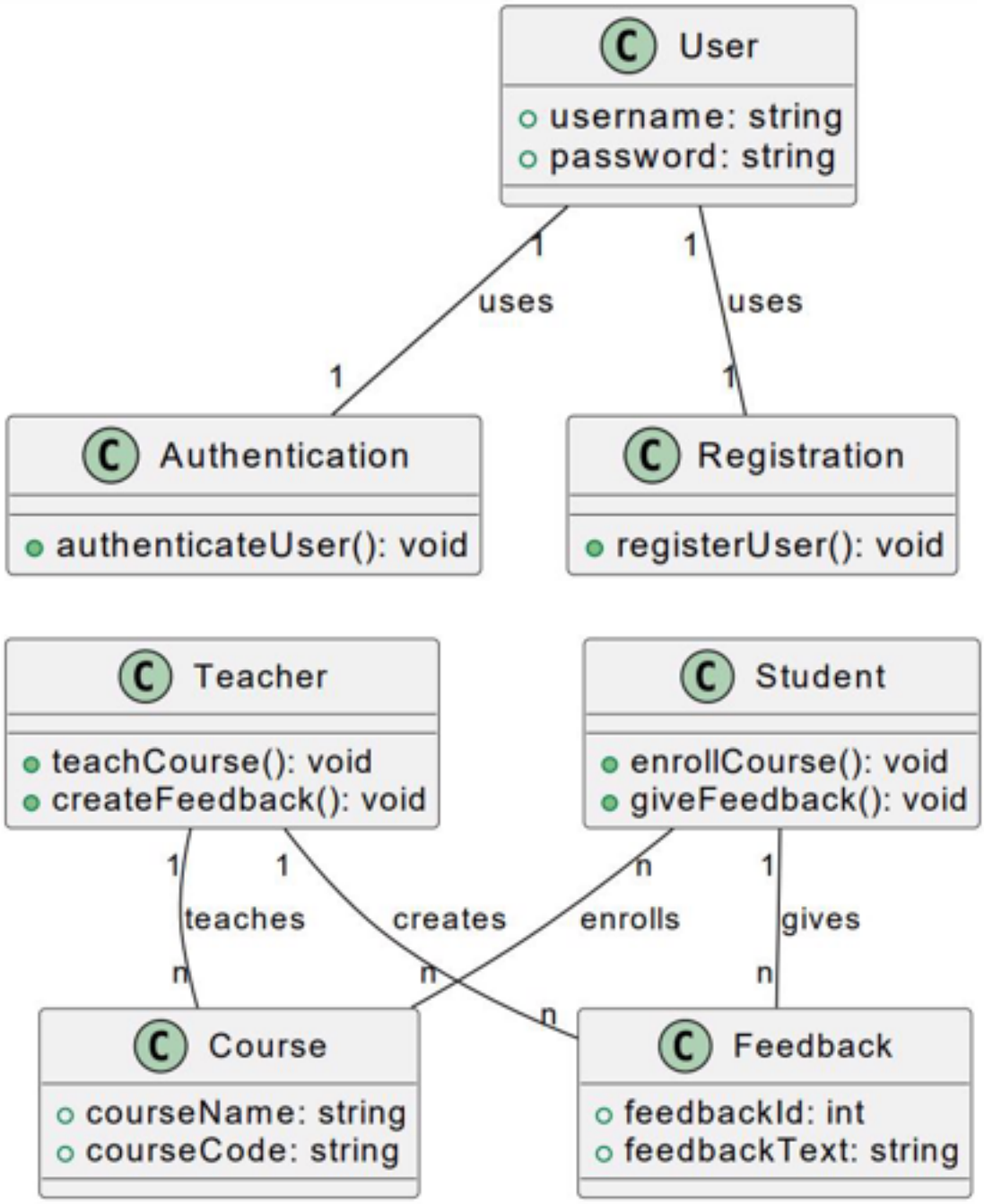


**Figure 6.2.1 Class diagram**

# CHAPTER: 7

# DATA DICTIONARY

## 7.1 Introduction

Data Dictionary is an important part of a project or system which contains all definition of elements in the system. In Data Dictionary you will find a list of all elements composing the data flowing through a system.

- The major elements of a system:
  - Data Flow
  - Data Store
  - Processes
- The data dictionary stores all details and description of these elements.
- The data dictionary provides additional information about the system.
- The data dictionary contains the data about data e.g. Student is a data and this student belongs to this course is a description of STUDENT data which is stored in data dictionary.
- Why is Data Dictionary important?
  - To manage the details in large system.
  - To communicate a common meaning for all system elements.
  - To document the features of system.
  - To determine where system changes should made.
  - To locate errors and omissions in the system.

# 7.2 List of Tables

## 7.2.1: accounts_info

| Field Name | Data Type | Constraints | Description |
|---|---|---|---|
| id | VARCHAR | PRIMARY | To store unique id |
| Name | VARCHAR | NOT NULL | To store the name |
| Email | VARCHAR | NOT NULL | To store the email address |
| Password | VARCHAR | NOT NULL | To store the password |

**Table 7.2.1 accounts_info**

## 7.2.2: courses_info

| Field Name | Data Type | Constraints | Description |
|---|---|---|---|
| cid | VARCHAR | PRIMARY | To store unique cpurse id |
| cName | VARCHAR | NOT NULL | To store the course name |
| cDesc | VARCHAR | NOT NULL | To store the course description |

**Table 7.2.1 courses_info**

## 7.2.3: feedback_info

| Field Name | Data Type | Constraints | Description |
|---|---|---|---|
| fid | VARCHAR | PRIMARY | To store unique id |
| Teacher_id | VARCHAR | NOT NULL | To store the teacher id |
| Course_id | VARCHAR | NOT NULL | To store the course id |
| feedback | VARCHAR | NOT NULL | To store the feedback |

**Table 7.2.1 feedback_info**

# CHAPTER: 8

# TESTING

## 8.1 Testing Plan

The testing plan for the Training Management System encompasses unit testing, integration testing, system testing, and user acceptance testing (UAT). Through rigorous testing at each stage, the system's functionality, reliability, and security will be ensured. This approach aims to deliver a robust and user-friendly platform for administrators, instructors, and students, meeting their diverse needs effectively.

## 8.2 Testing Strategies

1. **Functional Testing**: Verify that all system functionalities work as intended, including user authentication, course creation, enrollment, progress tracking, and feedback submission.
2. **Usability Testing**: Evaluate the user interface and overall user experience to ensure ease of navigation, clarity of instructions, and intuitive interaction design.
3. **Performance Testing**: Assess system performance under normal and peak loads to ensure responsiveness, scalability, and reliability under varying conditions.
4. **Security Testing**: Identify and mitigate security vulnerabilities, such as authentication flaws, data leakage risks, and potential breaches, to safeguard user data and system integrity.

## 8.3 Testing Method

1. **Unit Testing:** Test individual components and modules of the system in isolation to ensure they function correctly and meet specified requirements.
2. **Integration Testing:** Verify the interaction and integration between different modules and components to ensure seamless communication and data exchange.
3. **System Testing:** Conduct end-to-end testing of the entire system to validate overall system behavior and functionality in accordance with user requirements.

4. **Acceptance Testing:** Involve stakeholders, including administrators, instructors, and students, to validate that the system meets their needs and expectations.

## 8.4 Test Case

1. **User Authentication:**
   - Test valid and invalid login credentials.
   - Test password reset functionality.
   - Test account lockout after multiple failed login attempts.
2. **Course Management:**
   - Test course creation, editing, and deletion.
   - Test course categorization and organization.
   - Test search and filter functionalities for finding courses.
3. **Enrollment and Progress Tracking:**
   - Test course enrollment process.
   - Test progress tracking and completion status updates.
   - Test notifications for upcoming deadlines or incomplete tasks.
4. **Feedback Mechanism:**
   - Test submission and retrieval of feedback.
   - Test visibility and display of feedback ratings and reviews.
   - Test moderation and management of user-generated content.

# CHAPTER: 9

# SNAPSHOT OF WEBSITE

## 9.1 Users site

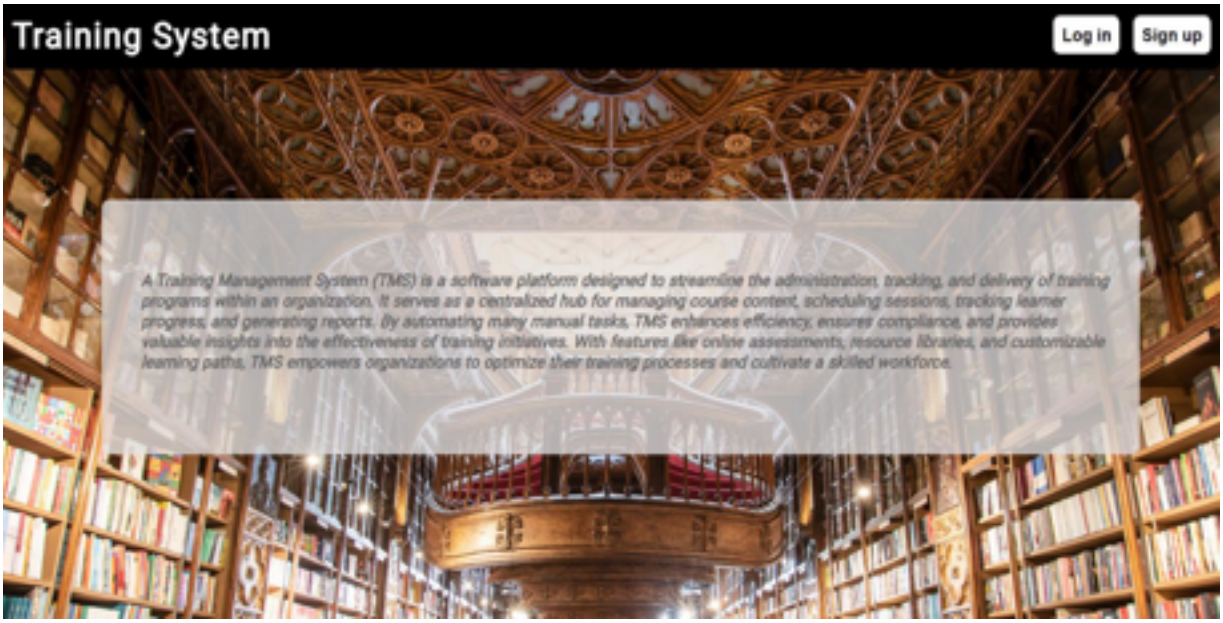


**Figure 9.1.1 Landing Page**

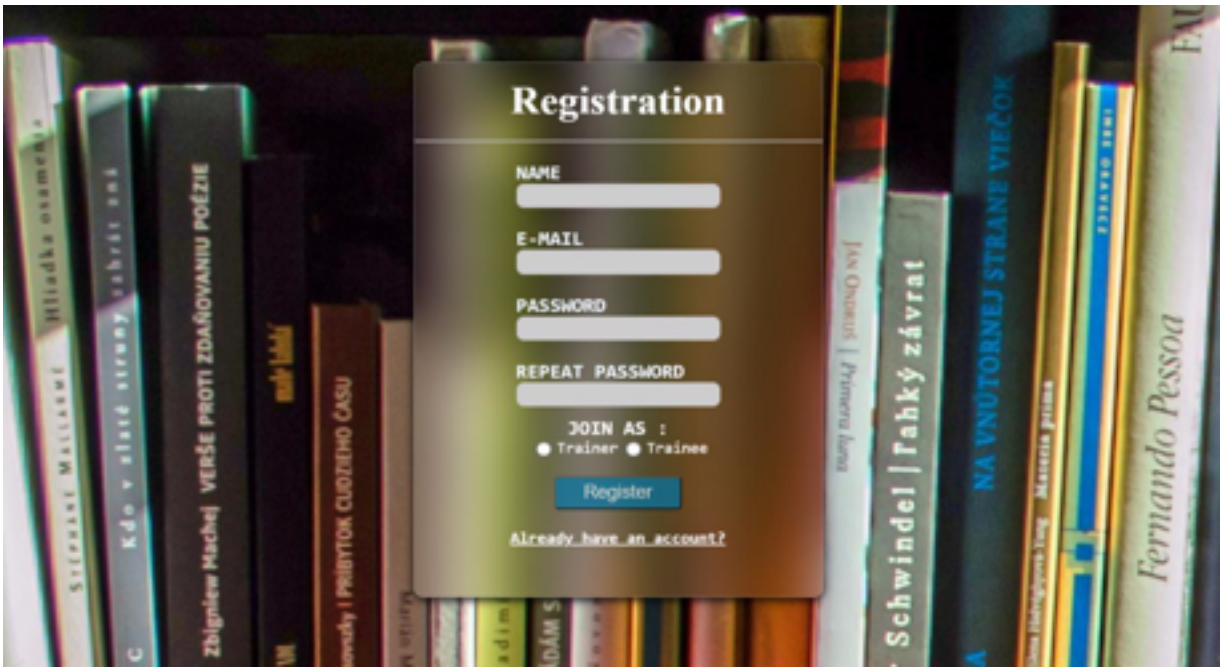


**Figure 9.1.2 Register**

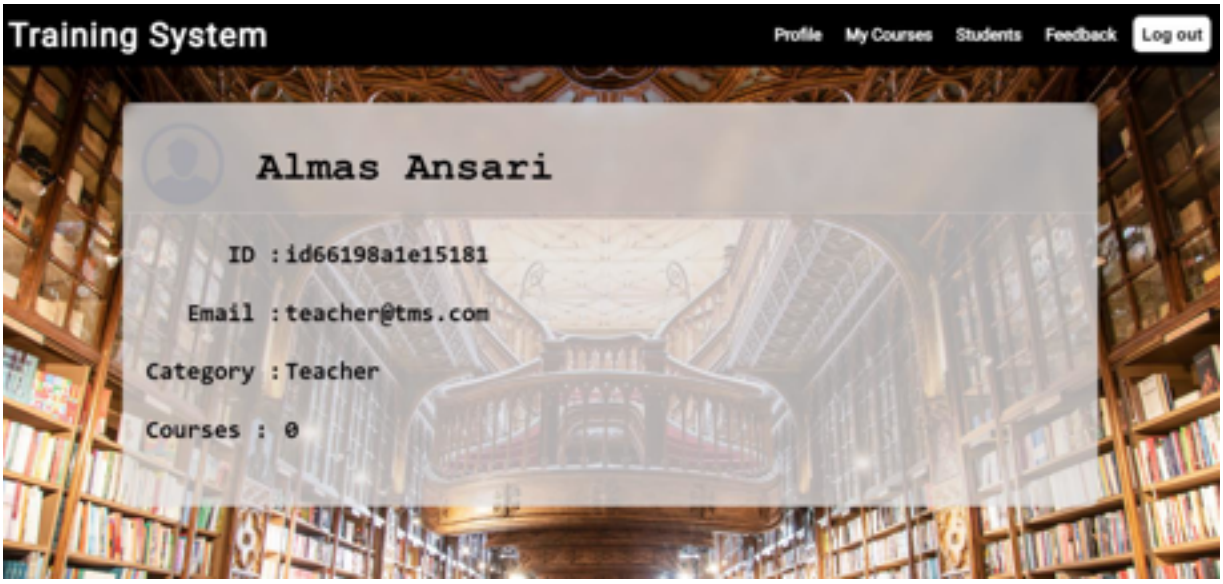


**Figure 9.1.3 Profiling**

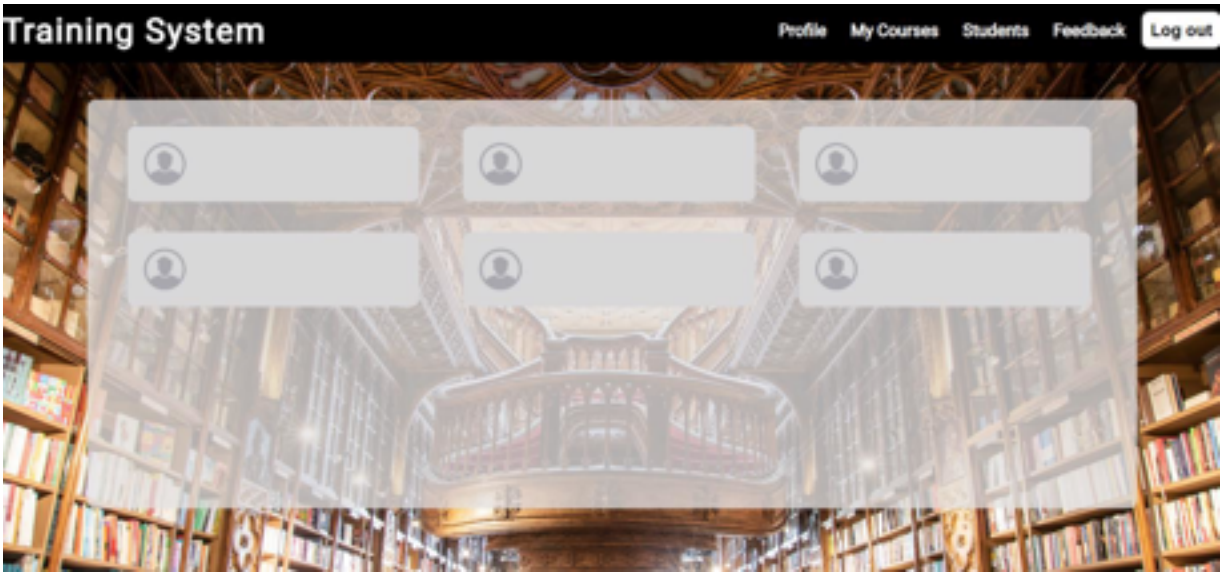


**Figure 9.1.4 Students**

# CHAPTER: 10

# ADVANTAGES

## 10.1 Advantages

1. **Efficient Course Management**: Simplifies course administration for administrators by enabling easy creation, editing, and deletion of courses, streamlining workflow processes.
2. **Convenient Access**: Provides users with convenient access to a diverse range of courses, enhancing learning opportunities and flexibility in scheduling.
3. **Feedback Mechanism**: Incorporates a feedback mechanism allowing users to provide input, fostering continuous improvement and customization based on user preferences and needs.
4. **Flexibility and Accessibility**: Being web-based, the system offers flexibility and accessibility, allowing users to access courses from any location with an internet connection, promoting inclusive learning environments.
5. **Enhanced Learning Experience**: Facilitates a personalized learning experience for users by offering a variety of courses and resources tailored to individual preferences and learning objectives.

## 10.2 Limitations

1. **Dependency on Internet Access**: Users require a stable internet connection to access the system, which may limit accessibility in areas with poor connectivity or for users with limited internet access.

2. **Technical Support and Maintenance:** Regular maintenance and technical support are necessary to address system updates, bugs, and performance issues, requiring dedicated resources and expertise.

3. **Learning Curve for Users:** Users, especially those unfamiliar with online learning platforms, may experience a learning curve in navigating the system and utilizing its features effectively, potentially impacting user adoption and satisfaction.

4. **Content Quality Control:** Ensuring the quality and accuracy of course content, as well as monitoring user-generated feedback, may require continuous oversight and moderation to maintain the integrity of the platform.

5. **Privacy and Security Concerns:** Safeguarding user privacy and data security is paramount, necessitating robust measures to prevent unauthorized access, data breaches, or misuse of personal information, which may pose challenges in compliance with data protection regulations.

# CHAPTER: 11

# CONCLUSION AND FUTURE ENHANCEMENT

## 11.1 Conclusion

The Training Management System offers administrators streamlined course management tools, facilitating efficient creation, editing, and deletion of courses. Users benefit from convenient access to a wide array of courses, enhancing their learning experiences and flexibility. While the system's feedback mechanisms encourage continuous improvement, challenges such as internet dependency and technical support needs must be addressed. Despite these hurdles, proactive measures can ensure the system remains robust and user-friendly. Learners appreciate the system's ease of use and personalized learning features, although addressing the learning curve for new users is crucial. Through ongoing refinement and adaptation, the Training Management System can continue to serve as a valuable asset in online education, meeting the diverse needs of administrators and learners alike.

## 11.2 Future Enhancement

Future enhancements for the Training Management System could include:

1. **Advanced Analytics:** Implementing advanced analytics features to provide insights into user engagement, course effectiveness, and learning outcomes, enabling administrators to make data-driven decisions to improve course offerings.
2. **Interactive Learning Tools:** Introducing interactive learning tools such as virtual labs, simulations, and gamified elements to enhance user engagement and promote active learning experiences.
3. **Integration with Learning Management Systems (LMS):** Integrating with popular Learning Management Systems to allow seamless transfer of course materials, grades, and user data, facilitating interoperability and scalability.

4. **Mobile Application:** Developing a dedicated mobile application to extend accessibility and convenience for users, allowing them to access courses, track progress, and engage with content on-the-go.
5. **Personalized Recommendations:** Incorporating machine learning algorithms to analyze user behavior and preferences, providing personalized course recommendations tailored to each user's interests and learning objectives.
6. **Collaborative Learning Features:** Introducing collaborative learning features such as discussion forums, group projects, and peer-to-peer learning communities to foster interaction and knowledge sharing among users.

# APPENDIX

## A) Course Outcome

**[Table 12.1.1: Course Outcome Table]**

| Sr. No. | CO statement | Marks % weightage | Chapter No. |
|---|---|---|---|
| CO-1 | Undertake problem identification, formulation and solution | 20% | **CHAPTER 1** INTRODUCTION |
| CO-2 | Design engineering solutions to complex problems utilising a systematic approach and team work | 30% | **CHAPTER 2** SYSTEM REQUIREMENTS<br>**CHAPTER 3** DAILY TASK |
| CO-3 | Communicate with engineers and the community at large in written and oral forms | 20% | **CHAPTER 6** SYSTEM DESIGN<br>**CHAPTER 10** ADVANTAGES<br>**CHAPTER 11** CONCLUSION AND FUTURE ENHANCEMENT |
| CO-4 | Demonstrate the knowledge and understanding of engineering and management principle and apply it to assigned project | 30% | **CHAPTER 4** FRONT END OF SYSTEM<br>**CHAPTER 5** BACK END OF SYSTEM<br>**CHAPTER 6** SYSTEM DESIGN<br>**CHAPTER 7** DATA DICTIONARY<br>**CHAPTER 8** TESTING |

## B) Books

- **HTML and CSS: Design and Build Websites**
  - Author: Jon Duckett
- **JavaScript and jQuery: Interactive Front-End Web Development**
  - Author: Jon Duckett
- **PHP and MySQL for Dynamic Web Sites: Visual Quick Pro Guide**
  - Author: Larry Ullman
- **Murach's SQL Server 2019 for Developers**
  - Authors: Joel Murach and Bryan Syverson

## C) Web Reference

- **W3Schools. "HTML Tutorial." [Online]**
  - Available: https://www.w3schools.com/html/default.asp
- **W3Schools. "CSS Tutorial." [Online]**
  - Available: https://www.w3schools.com/css/default.asp
- **W3Schools. "JavaScript Tutorial." [Online]**
  - Available: https://www.w3schools.com/js/default.asp
- **W3Schools. "PHP Tutorial." [Online]**
  - Available: https://www.w3schools.com/php/default.asp