LearnHub: Your Center for Skill Enhancement

# INTRODUCTION

LearnHub is a digital platform designed to provide a variety of tools and resources to facilitate learning and skill development over the internet. These platforms have become increasingly popular, especially in recent years, as they offer flexibility and accessibility for learners of all ages and backgrounds. Here are some key features and a description of LearnHub:

- User-Friendly Interface  
- Course Management  
- Interactivity  
- Certification  
- Accessibility  
- Self-Paced Learning  
- Payment and Subscription Options

# Scenario-based Case Study

Scenario: Learning a New Skill with LearnHub

- User Registration  
- Browsing Courses  
- Enrolling in a Course  
- Learning Progress  
- Interaction and Support  
- Course Completion and Certification  
- Paid Courses  
- Teacher's Role  
- Admin Oversight

# TECHNICAL ARCHITECTURE

The technical architecture of LearnHub follows a client-server model, with the frontend serving as the client and the backend as the server. Key components include React.js, Node.js, Express.js, and MongoDB.

# ER Diagram

Two key collections: Users and Courses with fields for each defined.

# PRE-REQUISITES

- Vite  
- Node.js & npm  
- Express.js  
- MongoDB  
- React.js  
- HTML, CSS, JavaScript  
- Mongoose

## Installation Steps

1. Install Node.js, npm, and MongoDB.  
2. Set up Vite for frontend.  
3. Install dependencies.  
4. Start the development server.

# PROJECT STRUCTURE

Frontend and Backend files and folders for UI and API development.

# Application Flow

- Teacher: Add, update, delete courses.  
- Student: Enroll, track progress, complete courses, earn certificates.  
- Admin: Manage users, monitor activity, oversee courses.

# MILESTONES

1. Setup & Configuration  
2. Backend Development  
3. Database Setup  
4. Frontend Development  
5. Project Implementation

# Conclusion

LearnHub serves as a centralized platform for skill enhancement, making learning accessible, flexible, and interactive for everyone, from beginners to advanced learners.