Project Report Format

Project Title: LearnHUb:Your Center For Skill Enhancement

1. INTRODUCTION

1.1 Project Overview

LearnHub is an Online Learning Platform (OLP) designed to facilitate digital education for learners, instructors, and administrators. It enables course creation, enrollment, certification, and student-teacher interaction through a responsive and intuitive web application.

1.2 Purpose

The purpose of LearnHub is to provide flexible, accessible, and interactive learning for all users by leveraging modern web technologies and scalable infrastructure.

2. IDEATION PHASE

2.1 Problem Statement

Many learners face challenges in accessing quality education due to geographical, financial, or time constraints. Existing platforms are often too complex or costly for beginners.

2.2 Empathy Map Canvas

- **Says**: "I want to learn a new skill, but I don't know where to start."

- **Thinks**: "Will this course be worth my time and money?"

- **Does**: Searches YouTube or blogs for resources

- **Feels**: Confused, overwhelmed, and skeptical about learning online

2.3 Brainstorming

Ideas included:

- A self-paced learning portal

- Live webinars

- Affordable paid courses

- Certificate generation

- Instructor management

- Admin dashboard

3. REQUIREMENT ANALYSIS

3.1 Customer Journey Map

User → Registers → Searches Courses → Enrolls → Learns at Own Pace
→ Interacts with Instructor → Completes → Gets Certified

3.2 Solution Requirements

- Intuitive UI

- Secure authentication

- Course upload & management

- Certification engine

- Admin-level control

- Scalability

3.3 Data Flow Diagram

Will be provided in the Appendix as a diagram.

3.4 Technology Stack

- **Frontend**: React.js, Bootstrap, Material UI

- **Backend**: Node.js, Express.js

- **Database**: MongoDB Atlas

- **Auth**: JWT

4. PROJECT DESIGN

4.1 Problem-Solution Fit

The platform solves the need for accessible, flexible education with
features like self-paced modules, teacher interaction, and certification.

4.2 Proposed Solution

LearnHub offers:

- Course browsing and filtering

- Instructor-led learning

- Progress tracking

- Certificates

- Paid & free course models

4.3 Solution Architecture

Follows a client-server model. React handles UI, Axios manages API calls, Express.js processes backend logic, and MongoDB stores structured data.

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5. PROJECT PLANNING & SCHEDULING

5.1 Project Planning

- **Week 1**: Requirement Gathering & UI Design

- **Week 2**: Frontend Development

- **Week 3**: Backend & APIs

- **Week 4**: Database Integration

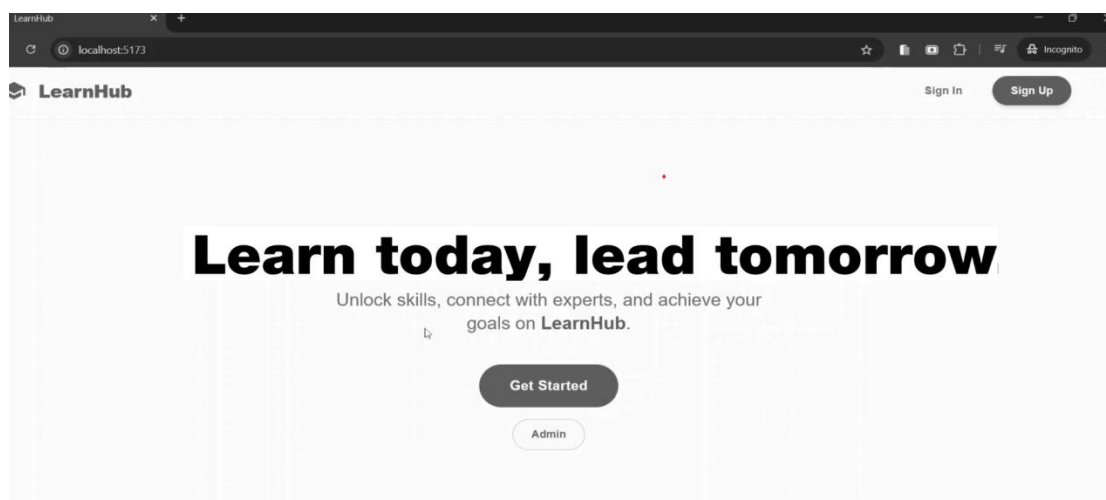- **Week 5**: Testing & Debugging

- **Week 6**: Final Demo & Report

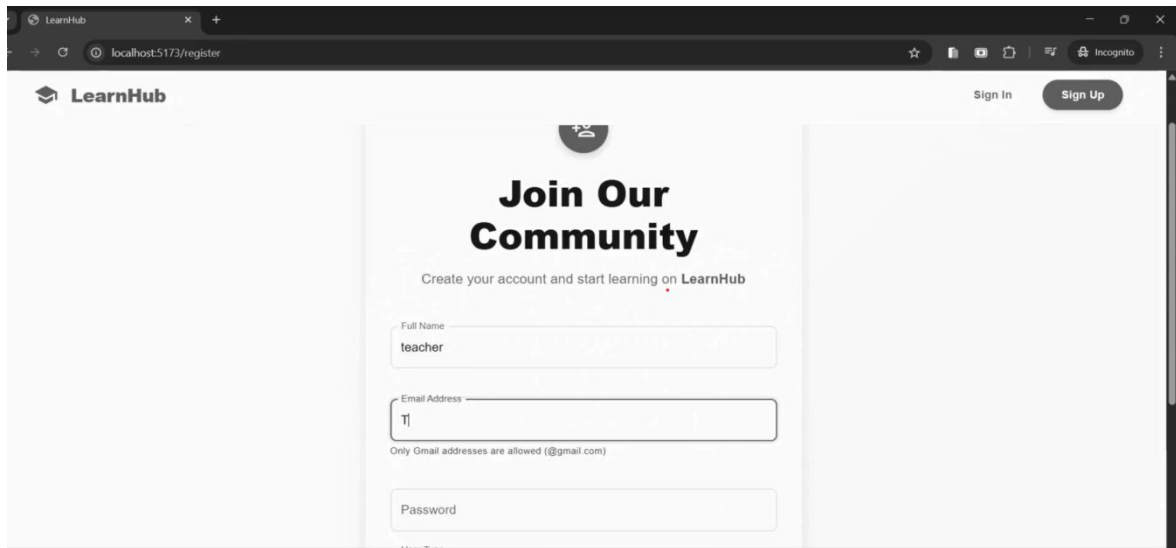**6. FUNCTIONAL AND PERFORMANCE TESTING**

6.1 Performance Testing

- Load-tested API endpoints

- Verified response time for course search, login, and enrollment

- Tested with 100+ concurrent users on local setup

7.RESULTS

7.1Output:

8. ADVANTAGES & DISADVANTAGES

Advantages:

- **User-friendly interface**
- **Self-paced and instructor-led learning**
- **Scalable and flexible**
- **Real-time interaction**

Disadvantages:

- **Requires stable internet connection**
- **No mobile app (currently web-only)**

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9. CONCLUSION

LearnHub bridges the gap between learners and instructors through an efficient, interactive platform. It demonstrates how modern tech can deliver impactful learning at scale.

FUTURE SCOPE 11. APPENDIX

Source Code(if any)

Dataset Link

GitHub & Project Demo Link

https://drive.google.com/file/d/1ML1WtKYnvB_w2C54DrjFest6CfsUySbP/view?usp=sharing