

ADVANCE FULL STACK (AFS)

Project Proposal

Semester-VI- (Batch-2022)

E-Learning App



Submitted By:-

Khushal Goyal	2210991791	G-24
Keshav Garg	2210991782	G-24
Kavita Jora	2210991773	G-24
Kumar Garg	2210991820	G-24

**Department of Computer Science and Engineering
Chitkara University Institute of Engineering & Technology, Chitkara
University, Punjab**



1. **Project Statement:**

The current e-learning landscape faces significant challenges, including outdated platforms, sluggish performance, and overly complex interfaces that detract from the learning experience. These issues result in reduced engagement and hinder effective knowledge sharing. To overcome these problems, a modern solution is needed that prioritizes seamless user interaction, real-time content delivery, and an intuitive, learner-friendly interface. By developing an advanced e-learning platform, we can enhance engagement, improve knowledge retention, and set a new standard for online education

2. **Approximate duration (in hours) to complete the project:**

The estimated duration to complete the E-Learning project is approximately 200-250 hours. This timeline includes all stages of development, from initial planning to final deployment and documentation.

3. **Proposed Project In charge:**

The designated individual will oversee all aspects of the **E-Learning App** project.

Responsibilities will include planning, coordination, and ensuring that the project is completed on time, within scope, and meets all specified requirements.

4. **Team Members Along with Roll Numbers:**

- a. Kumar Garg - 2210991820
- b. Keshav Garg - 2210991782
- c. Kavita Jora – 2210991773
- d. Khushal Goyal – 2210991791

5. **Check Points:**

- a. Does the project statement result in a product? If yes, what type of product?
 - Yes, the project statement results in a product. The product is a web-based e-learning platform where users can access educational content, participate in interactive courses, and engage in real-time discussions with instructors and peers.
- b. If it is a product, can a prototype be made? If not, what is it that we can produce that our teachers can evaluate?
 - Answer: Yes, a prototype can be made. The prototype will be a basic web application demonstrating key features such as user registration, verification .
- c. Does the project statement use multiple concepts to achieve the outcome? (yes/no) • Answer: Yes, the project statement uses multiple concepts to achieve the outcome.
- d. Does it have enough for our team members to do a sufficient amount of work? (yes/no)
 - Answer: Yes, the project has enough work for team member.

6. **Technical Nodes**

Subject / Area / Topic	Technical Nodes
Frontend Development	HTML, CSS, JavaScript, React
Backend Development	Node.js, Express.js
Database Management	MongoDB, Mongoose
Version Control	Git, GitHub

7. **Prerequisites (in terms of knowledge, concepts and material) for doing the Project:**

Knowledge of React, Express and Node.js. Basic understanding of databases, Knowledge of Authentication and security and basics of HTML, CSS and JS.

8. **Material that are required to make the project and where it might be available**

- a. Development Environment
- b. Code Editor (like VS Code) – Available for free online.
- c. Node.js and npm – Available for download from the Node.js website.
- d. Libraries and Frameworks:
- e. React, Express – Installable via npm (Node.js package manager).
- f. Database software (like MongoDB or Atlas)

9. **What could the total cost of the project?**

- a. **Development Tools:** Free (VS Code, Node.js).
- b. **Libraries/Frameworks:** Free (React, Express).
- c. **Database:** Free (MongoDB Atlas offers a free tier, MySQL is open source).
- d. **SSL Certificates:** Free or potentially a small cost for commercial certificates.
- e. **Hosting:** Potential cost depending on the hosting provider (e.g., Heroku, AWS, if we do).

Many offer free tiers or affordable plans.

Overall, the cost can be minimal if you use free resources and services.

10. **Resources available to us:**

- a. Educational Content Libraries
- b. Instructional Design Tools
- c. Multimedia Creation Software
- d. Online Tutorials and Documentation
- e. Mobile and Web Development Frameworks