

# SkillHive - A Peer Learning & Micro-Course Platform

### **Project Overview:**

SkillHive is a full-stack web application where students and professionals can create and enroll in short peer-led courses or learning sessions. It includes features like course creation, enrollment, progress tracking, discussion forums, and reviews.

### **Objectives for Interns:**

- Learn the entire stack: frontend, backend, database, deployment
- Build a real-world application using modern technologies

#### **Recommended Tech Stack:**

- Frontend: React.js (or Next.js), Tailwind CSS / Bootstrap
- Backend: Node.js + Express (or Django for Python alternative)
- Database: MongoDB (or PostgreSQL for relational model)
- Authentication: JWT + OAuth2 (Google login)
- Storage: Cloudinary / Firebase Storage (for media upload)
- Deployment: Vercel (Frontend) + Render/Heroku (Backend) + MongoDB Atlas

# **Planning & Environment Setup**

- Project introduction and repo setup on GitHub
- Finalize tech stack and install tools (VS Code, Postman, Git)
- Create UI wireframes (Figma) and ER diagram
- Set up frontend and backend boilerplates
- Configure basic routing (React Router / Express API routes)









#### **Authentication & User Roles**

- Implement user registration & login (JWT + Google OAuth)
- Create profile page (name, bio, skills)
- Role-based access: Learner, Instructor, Admin

### **Course Management System**

- Instructors can create/update/delete a course (title, description, image, video)
- Learners can browse/search/filter courses
- Admin approval workflow for new courses

### **Enrollment & Progress Tracking**

- Implement course enrollment feature
- Learner dashboard showing enrolled courses & progress
- Video completion tracker (simple checkbox or video watch detection)

#### **Discussions & Reviews**

- Add Q&A forum for each course (threaded discussion)
- Course rating and review system (only for enrolled learners)
- Notification system for new replies or updates

# **Testing, Deployment & Documentation**

- Functional testing and UI bug fixes
- Deploy frontend and backend
- Prepare user and developer documentation
- Final project presentation and code walkthrough









#### **Deliverables:**

- Live deployed website
- GitHub repository with code and README
- Figma design and database schema
- Demo video or presentation
- Weekly reports (optional)

## **Bonus Features (Optional):**

- Certificate generation for course completion (PDF)
- Admin dashboard with analytics
- Search with tags, categories, and difficulty level
- Progressive Web App (PWA) support







