

# AI Study Assistant Project Documentation

## AI Study Assistant Project Documentation

### Overview

This project is a fullstack AI-powered study assistant web application. It consists of a React frontend (Vite) and a Node.js/Express backend. Key features include chat-based study sessions, quiz generator, flashcards, bookmarks, study goals, note-taking, streak counter, and more.

### Architecture

- **Frontend:** React 18, Vite, CSS modules
- **Backend:** Node.js, Express
- **Database:** MongoDB (via models in backend/models)
- **API:** RESTful endpoints for chat, user sessions, and study features

### Folder Structure

...

backend/

  index.js

  package.json

models/

  chat.js

# AI Study Assistant Project Documentation

userChats.js

client/

index.html

package.json

vite.config.js

public/

pdf.worker.min.mjs

src/

App.jsx

index.css

main.jsx

components/

bookmarks/

chatList/

flashcards/

newPrompt/

# AI Study Assistant Project Documentation

pdfUpload/

progressDashboard/

quizGenerator/

studyGoals/

studyNotes/

studyTimer/

upload/

context/

layouts/

lib/

routes/

...

## Features

- **Chat-based Study Sessions**: AI-powered Q&A and note-taking

- **Quiz Generator**: Create quizzes from study material

- **Flashcards**: Generate and review flashcards

# AI Study Assistant Project Documentation

- **Bookmarks**: Save important chats and notes
- **Study Goals**: Set and track learning objectives
- **Progress Dashboard**: Visualize study progress
- **Streak Counter**: Track daily study streaks
- **Response Rating**: Rate AI responses
- **PDF Upload**: Import study material

## Setup Instructions

1. Install dependencies in both backend and client folders:

```
```sh
```

```
cd backend && npm install
```

```
cd ..../client && npm install
```

```
```
```

2. Configure environment variables in backend/.env (API keys, DB URI)

3. Start backend server:

```
```sh
```

```
cd backend && node index.js
```

# AI Study Assistant Project Documentation

4. Start frontend dev server:

```
```sh
```

```
cd client && npm run dev
```

```
```
```

## Deployment Guide

- **Backend:** Deploy to Render.com or Railway.app (free tier)
- **Frontend:** Deploy to Vercel.com or Netlify.com (free tier)
- **Database:** Use MongoDB Atlas (free tier)

## API Endpoints

- `/api/userchats` - Get user chats
- `/api/chats/:id` - Get, update, or delete chat
- `/api/chats/:id/title` - Rename chat

## Environment Variables

- `MONGO\_URI` - MongoDB connection string
- `JWT\_SECRET` - JWT secret for authentication

# AI Study Assistant Project Documentation

- `VITE\_API\_URL` (frontend) - Backend API URL

## How to Contribute

- Fork the repository
- Create a feature branch
- Commit changes and open a pull request

## License

MIT

## Contact

For support, open an issue on GitHub or contact the maintainer.

---

\*This documentation was auto-generated on December 22, 2025.\*