EduZen is a web-based AI-powered platform for students, built to run in a browser and integrate with Google services.

📌 **Revised Project Scope: AI Study Buddy & Well-Being Assistant (EduZen)**

Instead of building a full-scale AI learning management system, EduZen focuses on delivering a **lightweight AI-powered assistant** that enhances academic success and emotional well-being, especially for students under tight schedules and academic pressure.

**✅ AI-Powered Study Companion**

Students can upload textbook images or handwritten notes. The system extracts text using Google Cloud Vision API and generates summarized bullet points and quizzes using Gemini API or TensorFlow Lite. These AI-generated materials are displayed in a simple UI and can be exported to Google Docs or Google Forms for ease of access and sharing. Students will also be able to revisit their past study history and continue where they left off.

Key functionalities:

* Extract text from notes and textbooks using OCR.
* Summarize content into simple, structured formats.
* Automatically generate quizzes and flashcards.
* Save and export content to Google Docs or Forms.
* Revisit past summaries and quiz sessions.

**🩺 AI-Powered Well-Being Assistant (Integrated into AI Tutor)**

The AI Tutor also acts as a supportive well-being companion. When students interact with the chatbot, it analyzes emotional tone using sentiment detection. If signs of stress or anxiety are detected, it suggests appropriate actions such as break reminders, breathing exercises, or motivational tips. Students can also schedule study sessions and breaks, which will be synced to Google Calendar.

Key functionalities:

* Sentiment detection during chatbot interaction.
* Motivational message delivery when stress is detected.
* Suggestions for breaks, breathing exercises, or tips.
* Schedule and manage study sessions with reminders.
* All well-being support is embedded within the AI Tutor.

⚙️ **Key Technologies Used**

* Google Cloud Vision API for OCR (text extraction from images).
* Gemini API or TensorFlow Lite for generating summaries and quizzes.
* Google Dialogflow for AI chatbot conversations.
* Firebase for backend support, user data storage, and sentiment analysis (using ML Kit).
* Google Calendar, Google Docs, Google Drive, and Google Forms for workflow extensions.

📌 **Additional Google Platform Integrations**

EduZen integrates with multiple Google platforms to maximize usability and reach.

Google Classroom integration allows the AI Tutor to assist students directly within the learning management system. It can auto-generate summaries and quizzes for class materials and help identify weak areas for improvement.

Google Meet integration enables the AI to join live discussions, summarize content, and provide on-the-fly study tips.

With Google Assistant, students can interact with the AI Tutor through voice commands, making the experience hands-free and accessible—perfect for auditory learners or mobile users. For example, students can say: “Summarize Chapter 3” or “Make a quiz for my test.”

All summaries, quizzes, and flashcards can be exported directly to Google Docs and stored in Google Drive. Quizzes can be deployed using Google Forms, and user progress or analytics can be tracked using Google Sheets. Google Calendar helps students manage study sessions and break reminders effectively. And for students who prefer learning in their native language, Google Translate can be used to convert AI-generated content into multiple languages.