summArIze - AI Notes Generator

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Problem Statement:

Many students struggle to keep up with lectures, long readings, and study materials. College and high school students often feel overwhelmed and don't have enough time to review everything before exams. Notes can be confusing, videos are long, and studying is not always effective. Our app solves this problem by using AI to summarize text, videos, and lectures, create quick study guides, and generate quizzes so students can learn faster, understand better, and study more efficiently.

Core AI Functionality:

- **Text summarizer:** paste or upload notes/articles and get a short summary + key takeaways.

- **Video/lecture summarizer:** upload a video or link, then get a summary with timestamps and main points.

- **Auto notes:** generates clean lecture notes (headings, bullets, definitions, examples).

- **Quiz generator:** creates practice quizzes (MCQ, true/false, short answer) from the content.

- **Instant feedback:** checks your answers and explains why it's right/wrong.

- **Flashcards:** turns key terms into flashcards for quick memorization.

- **Study plans:** builds a simple study schedule based on your exam date and time available.

- **Search + highlight:** lets you search summaries/notes and highlights the most important parts.

- **Progress tracking:** tracks what you've studied and what you need to review again.

- **(BONUS) Gamifying notes:** Turns lecture notes and summaries into interactive mini-games.

Cloud services we plan to use:

- Gemini API
  Used as the core AI service to summarize lectures and readings, extract key concepts, generate study guides, and create quiz questions to help students study more efficiently.
- AWS Transcribe
  Used for speech to text transcription, converting uploaded lecture audio or video files into text so they can be analyzed and summarized by the AI.
- Google Firestore
  Used as a cloud-based NoSQL database to store uploaded content, transcriptions, generated summaries, study guides, and quizzes for each user.
- Use MicroSoft foundry