Kashar AI – Product Requirements Document (PRD)

A complete description of the product's purpose, features, workflows, and expected functionalities.

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1. Product Purpose

Kashar AI is a **personalized learning platform** that converts any uploaded content (notes, PDFs, textbooks, articles) into a complete study system powered by AI. The platform acts as a **24/7 real-time AI tutor**, offering: - Explanations - Voice interaction - Quizzes - Flashcards - Analytics

The purpose is to make studying **simpler, faster, and more interactive** without the need for physical tutors.

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2. Core Value Proposition

- • Convert any document → into a personalized learning module.
- • Remove confusion with a real-time voice tutor.
- • Replace manual studying with automated quizzes & flashcards.
- • Track progress automatically.

Kashar AI aims to be a **one-stop AI learning assistant**.

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3. Target Users

- • Students (school/college)
- • Exam aspirants
- • Researchers / Professionals
- • Anyone with long documents or study materials

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4. Core Features

4.1 Upload Module

Users upload PDF/doc/text files. The system extracts text → processes it → generates: - Summaries - Explanations - Topics/Tags - Structured knowledge chunks

Purpose: The uploaded content becomes the base for every downstream feature.

4.2 AI Tutor (Chat + Voice)

A personalized conversational tutor using text + voice.

Capabilities:

- Explain any concept from uploaded notes
- Answer follow-up questions
- Provide examples
- Correct misunderstandings
- Maintain context

Voice Tutor (Agora)

- User speaks in real time
- AI responds instantly with generated voice
- Works like a voice call, but with an AI—not a human
- Also supports text input simultaneously

Purpose: Allow users to learn through natural conversation.

4.3 Quiz Generator

Users can click *Generate Quiz* → select a topic → get a full quiz.

Sources of Quiz Topics:

Topics are extracted automatically when the AI processes answers or uploaded content.

Quiz Types:

- MCQs
- True/False
- Short-form recall

Purpose:

Evaluate understanding and reinforce memory.

4.4 Flashcard Generator

Automatically converts topics into: - Question → Answer cards - Important definitions - Key points to revise

Users can swipe through decks and mark *known/unknown*.

Purpose: Fast revision.

4.5 Progress & Analytics

Tracks: - Quiz scores - Accuracy - Weak topics - Revision streaks - Time spent

Displays charts and insights in the *Progress* page.

Purpose: Motivate the learner and highlight areas to improve.

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5. System Workflow (High-Level)

1. **User uploads a document** → backend extracts content → stores processed data.
2. **User chats with AI tutor** → queries processed data → generates structured responses.
3. **AI stores topics** from each conversation and document.
4. **User chooses "Generate Quiz"** → system shows topic list → quiz is generated.
5. **User generates flashcards** → based on main topics.
6. **User interacts with progress dashboard** → analytics fetched from stored results.
7. **Live AI Tutor (Voice)** → user enters voice room → Agora handles voice stream → AI returns synthesized speech responses.

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6. Key Product Principles

6.1 Simplicity First

The entire experience must stay: - Minimal - Fast - Easy to understand

6.2 Zero Over-Engineering

Only implement features needed for the core experience.

6.3 AI Should Always Be Helpful

No hallucinated content. No irrelevant answers. No complex wording.

6.4 Safety & Privacy

User data must remain secure using: - Supabase RLS - Token-secured voice rooms - Safe PDF handling

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7. User Journey (Step-by-Step)

1. User signs in.
2. Lands on dashboard → uploads notes.
3. AI processes notes → ready to chat.
4. User asks doubts (text or voice).
5. AI explains with examples.

6. User generates quizzes or flashcards.
7. User attempts quiz → results stored.
8. User monitors progress analytics.

This loop continues until the user masters the subject.

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8. Project Completion Definition

The product is considered complete when: - Upload → Tutor → Quiz → Flashcards → Progress flow works smoothly - Voice tutor works through Agora - Analytics are functional - UI is consistent and minimal - No unnecessary features exist

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