

Feasibility Report Summary

Project: SecondBrain (Intelligent RAG Assistant)

SecondBrain is an LLM-powered assistant allowing users to upload personal documents and knowledge bases for interactive querying, summarisation, and personalised quiz generation. It functions as a private, adaptive knowledge tool.

Market Feasibility

- Target Users:** Students, Researchers, Professionals managing large knowledge bases.
- Opportunity:** Bridges the gap between general conversational AI (ChatGPT) and static knowledge management (Notion/Obsidian).
- User Insight:** Strong interest in AI for organisation and time management. Demand for integrated note-taking and quiz features.

Technical Feasibility

Stack: Modern and accessible.

RAG Core	Python, LangChain, LlamaIndex
LLM / Embeddings	Groq API, Llama 3, SentenceTransformers
Data Storage	ChromaDB / Pinecone / FAISS
Frontend	React, Vue.js, Streamlit

Schedule Feasibility

Estimated Duration: 10–12 weeks (University-level team).

Key Phases:

- Setup & Data Preprocessing
- RAG Pipeline Development
- Frontend & Integration
- Testing & Deployment

Strategic Recommendations & Next Steps

- **Cost Efficiency Focus**

Prioritise local embedding storage (FAISS/Chroma) and open-source models to minimise long-term API expenditure.
- **Enhance Learning Experience**

Develop adaptive quiz generation and consider features like mind map visualisation and user analytics dashboard.
- **Expand Data Format Support**

Future development should include support for multi-format data, including images and handwritten notes.