AI Keyword Research Agent - Development Plan

Objective: The goal is to create a smart AI-based SEO keyword research agent that takes a seed keyword and suggests 50 related keywords. These should be high in search volume but low in competition, making them good options to rank on Google's first page.

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1. **Starting with SEO Basics** To make this work, I started by focusing on core SEO principles—understanding search intent and providing actual value to users. The main idea is not just to get keywords but to get ones that can really help rank content and drive meaningful traffic.

2. **Tools & Tech Stack**

- **User Input**: A basic UI or CLI where I can enter a seed keyword.
- **AI/NLP Engine**: I use models like Gemini to generate semantically similar and relevant keyword ideas.
- **SEO APIs**:
    - Used:-**SerpApi** autocomplete keyword suggestions,
      Search Volume: Simulated (randomly generated for demo/testing)
      Competition: Simulated (randomly generated for demo/testing)
    - Can use :-Google Keyword Planner for search volume.SEMrush for keyword competition.
- **n8n**: Can use automation—pulling data from APIs, sorting, filtering, and results automatically.

3. **How It Works (Flow)**

1. User gives one seed keyword.
2. AI model generates a broad list of related queries.
3. API data is fetched—search volume + competition .
4. Each keyword is ranked using a scoring formula like: `(Search Volume Weight) - (Competition Weight)`
5. Top 50 keywords are selected and outpufled in a downloadable format (CSV/JSON).

4. **Mixing Automation with Human Judgment** While most of this is automated, I think human review is key. I plan to do a final check on the keyword list to make sure it fits the business purpose and that the intent behind the terms makes sense. AI helps scale fast, but human touch gives precision.

5. **Why This Approach Works** This plan blends AI's ability to process a lot of data quickly with actual SEO insights. By using n8n for workflow automation and strong APIs for reliable data, I can build a system that's efficient yet accurate. And by keeping a human check at the end, I make sure the final output stays relevant.

Deliverables:

- Public GitHub repo with all source code
- A short narrated video demo
- Final result: 50 hand-picked SEO keywords for any seed input