



SEO Keyword Generation AI Agent – Development Plan



Objective:

To design and implement an AI Agent that accepts a **seed keyword** and returns **50 keyword suggestions**, ranked by **low competition** and **high monthly search volume**. The goal is to help users find keywords that can realistically rank on Google's first page.



Tools & Stack:

- **n8n**: No-code workflow automation tool
 - **LLaMA3 via GROQ API**: Generates keyword suggestions based on the seed
 - **SEO Keyword Research API (RapidAPI)**: Provides search volume and competition data
 - **Webhook Trigger + HTTP Request + Code Node (n8n)**: Data flow, enrichment, and sorting
 - **HTML Response**: Table output embedded in frontend (input.html)
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Workflow Design:

1. **Frontend Input**
HTML form takes a seed keyword and sends it to an n8n webhook.
2. **Keyword Generation (GROQ API)**
A prompt is sent to LLaMA3 to generate 50 SEO keyword candidates.
3. **Enrichment (SEO Keyword Research API - RapidAPI)**
Each keyword is enriched with:
 - avg_monthly_searches
 - competition_index
4. **Filtering & Ranking (n8n Code Node)**
Sorts the list by **lowest competition** and **highest volume**.
5. **Formatted Output (n8n Respond Node)**
Returns sorted keywords as an **HTML table** or JSON array to display on the webpage.