Assignment 11 – tool comparison

RAG vs Tavily API vs No Tool

In the picture below we can notice that for the newly added column „Safety", the standard GPT doesn`t provide information about toxicity in case of Corn, but Tavily provides information about it`s toxicity in some cases, as well as the RAG.

The reason why Tavily and RAG provide the same answer for Corn (in general is different, ex Aloe Vera) is because the URL used for providing context in RAG is the one found by the Tavily by searching on the internet.

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PLANT: ALOEVERA
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[STANDARD GPT] (No Tools)...
  Safety: Generally safe, but can cause mild irritation if ingested in large quantities. Keep out of reach of pets and children.

[WEB AGENT] (Searching Tavily)...
  Safety: Aloe vera is generally safe, but unprocessed aloe latex can be toxic if ingested. Consult sources for safety information.

[RAG AGENT] (Local DB + Fallback)...
  Safety: Aloe vera latex can be toxic if ingested in large amounts. It is advisable to avoid whole-leaf products.

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PLANT: CORN
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[STANDARD GPT] (No Tools)...
  Safety: Corn is generally safe for humans and pets; no known toxicity issues.

[WEB AGENT] (Searching Tavily)...
  Safety: Aflatoxin is a naturally occurring toxin produced by the fungus Aspergillus flavus, which can contaminate corn. Proper harvesting techniques and maintaining appropriate moisture levels can minimize contamination.

[RAG AGENT] (Local DB + Fallback)...
  Safety: Aflatoxin is a naturally occurring toxin produced by the fungus Aspergillus flavus, which can contaminate corn. Proper harvesting techniques and maintaining appropriate moisture levels can minimize contamination.
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