

Types of RAG

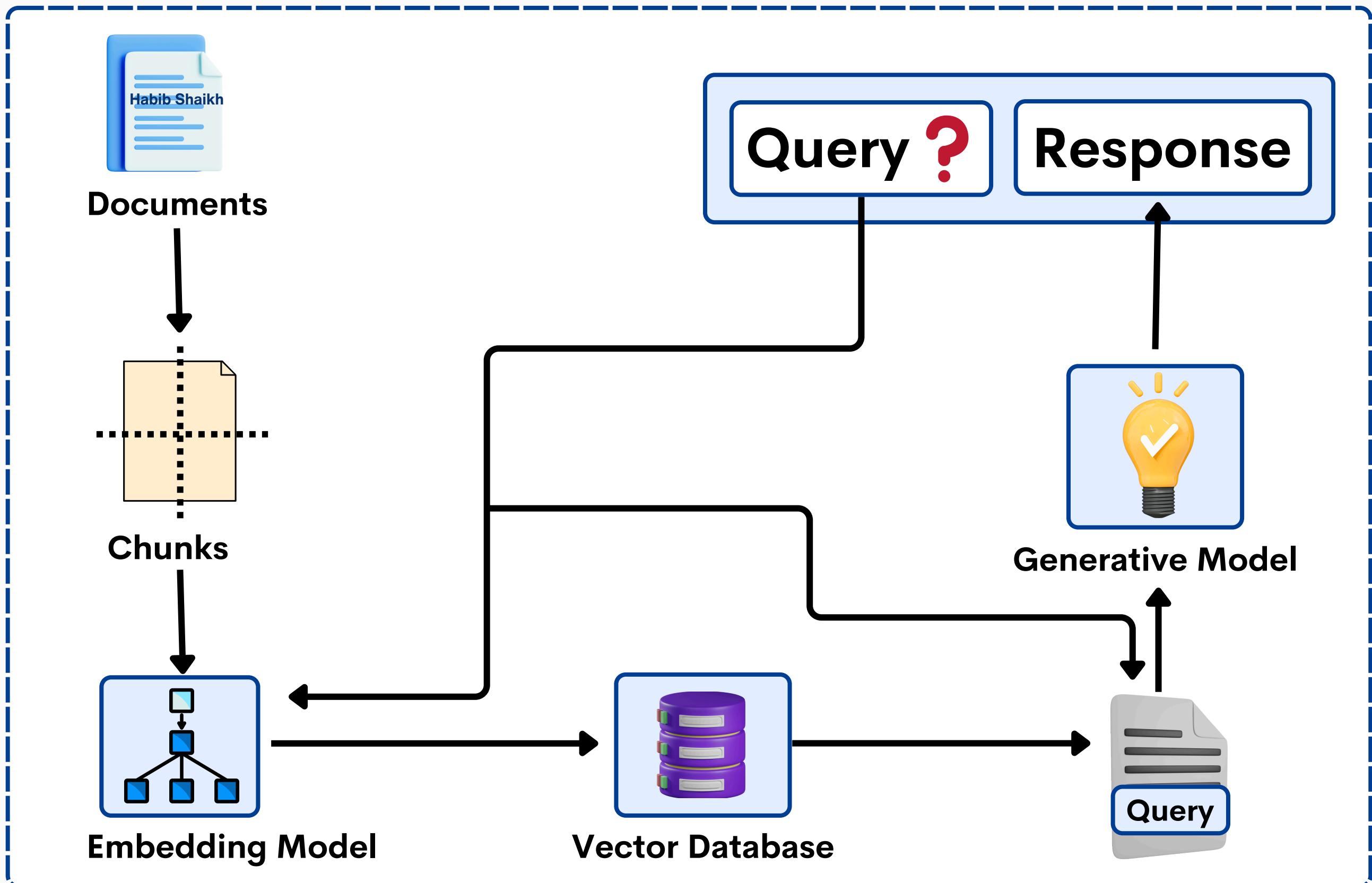


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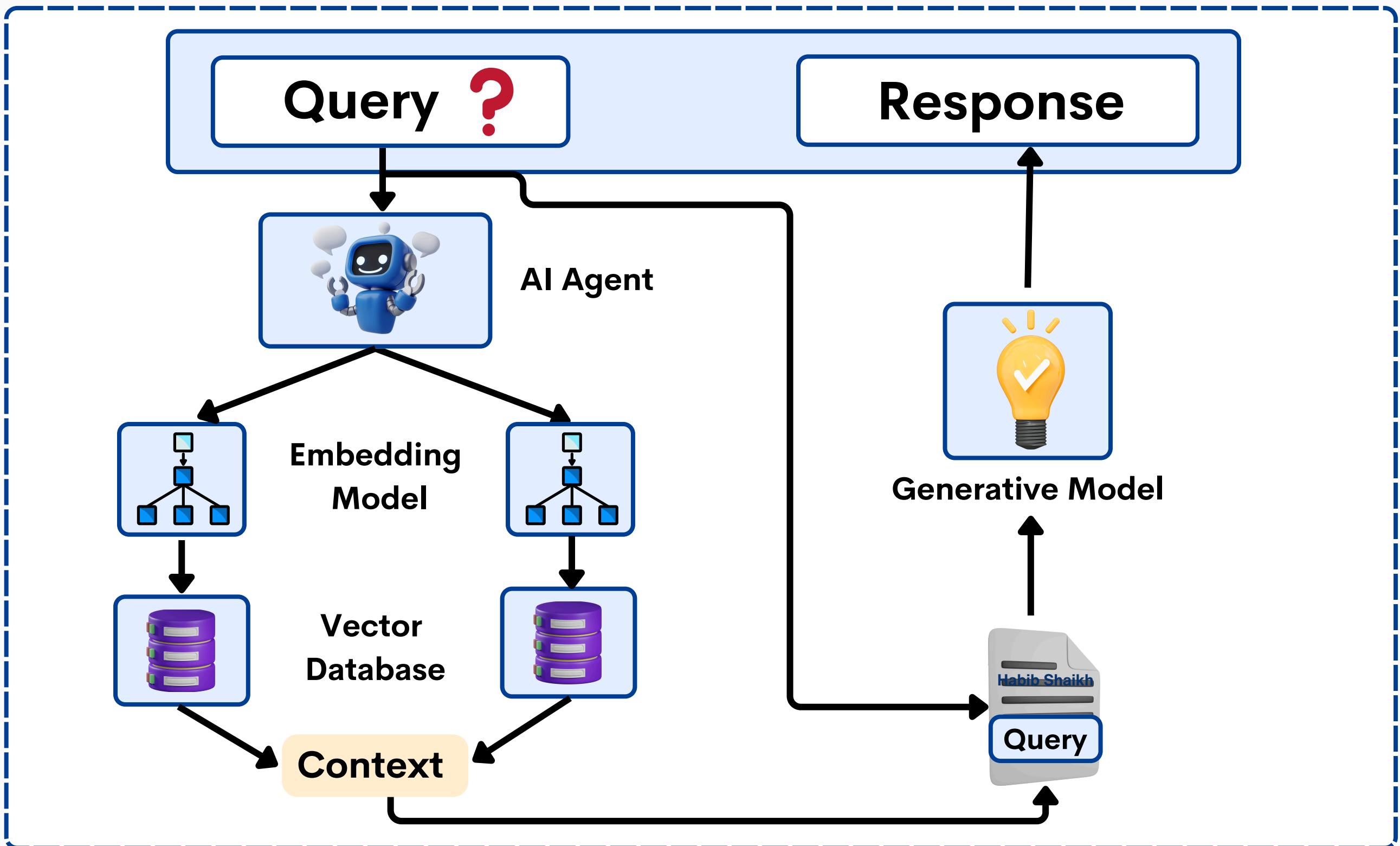
NAIVE RAG



- Basic retrieval + generation using a simple vector search.
- No advanced filtering, leading to irrelevant results sometimes.
- Example: AI answering FAQs using a static document store.

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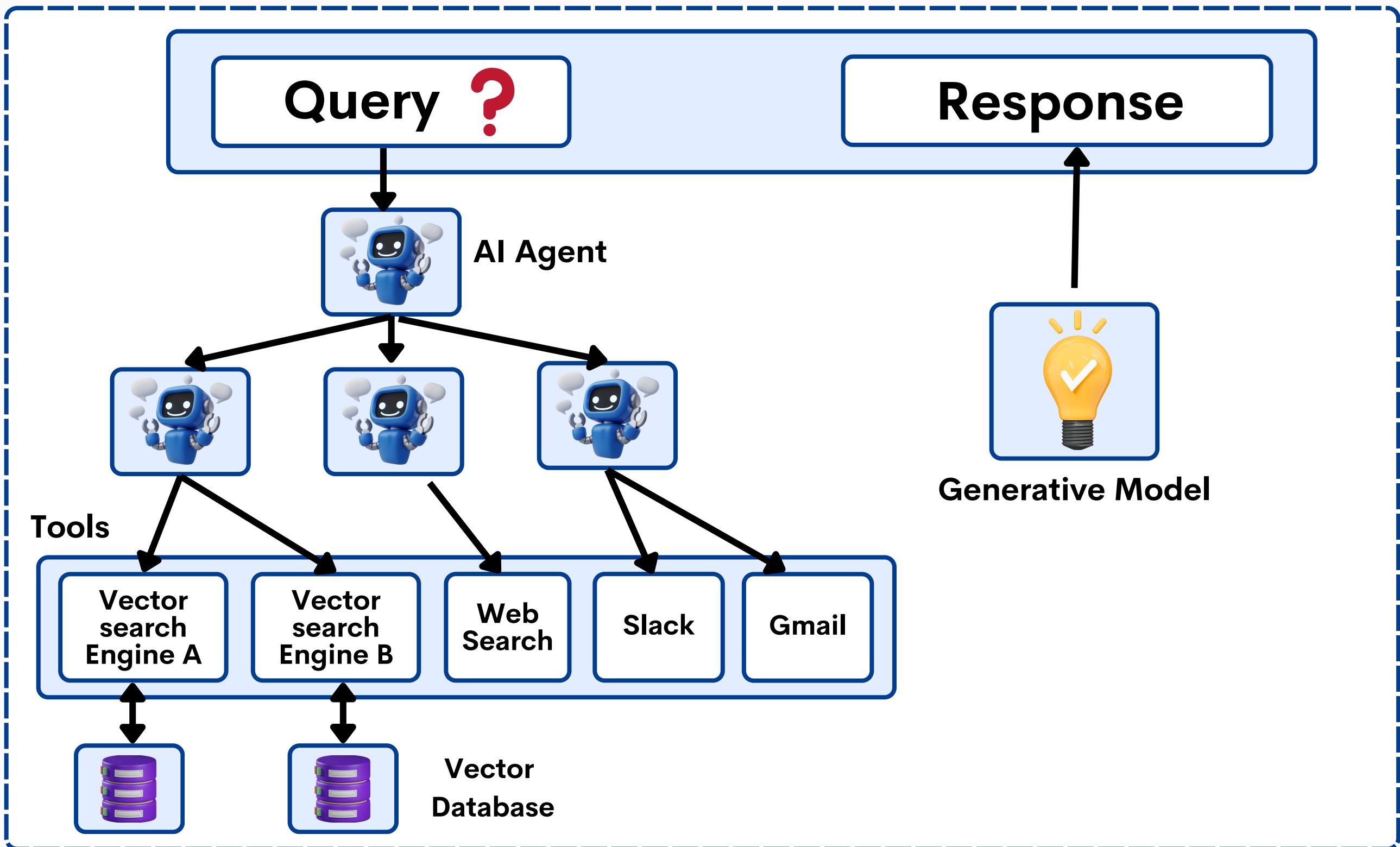
AGENTIC RAG (ROUTER)



- Intelligently selects data sources before retrieval.
- Optimizes retrieval based on query type.
- Example: AI choosing between a knowledge base or real-time web search.

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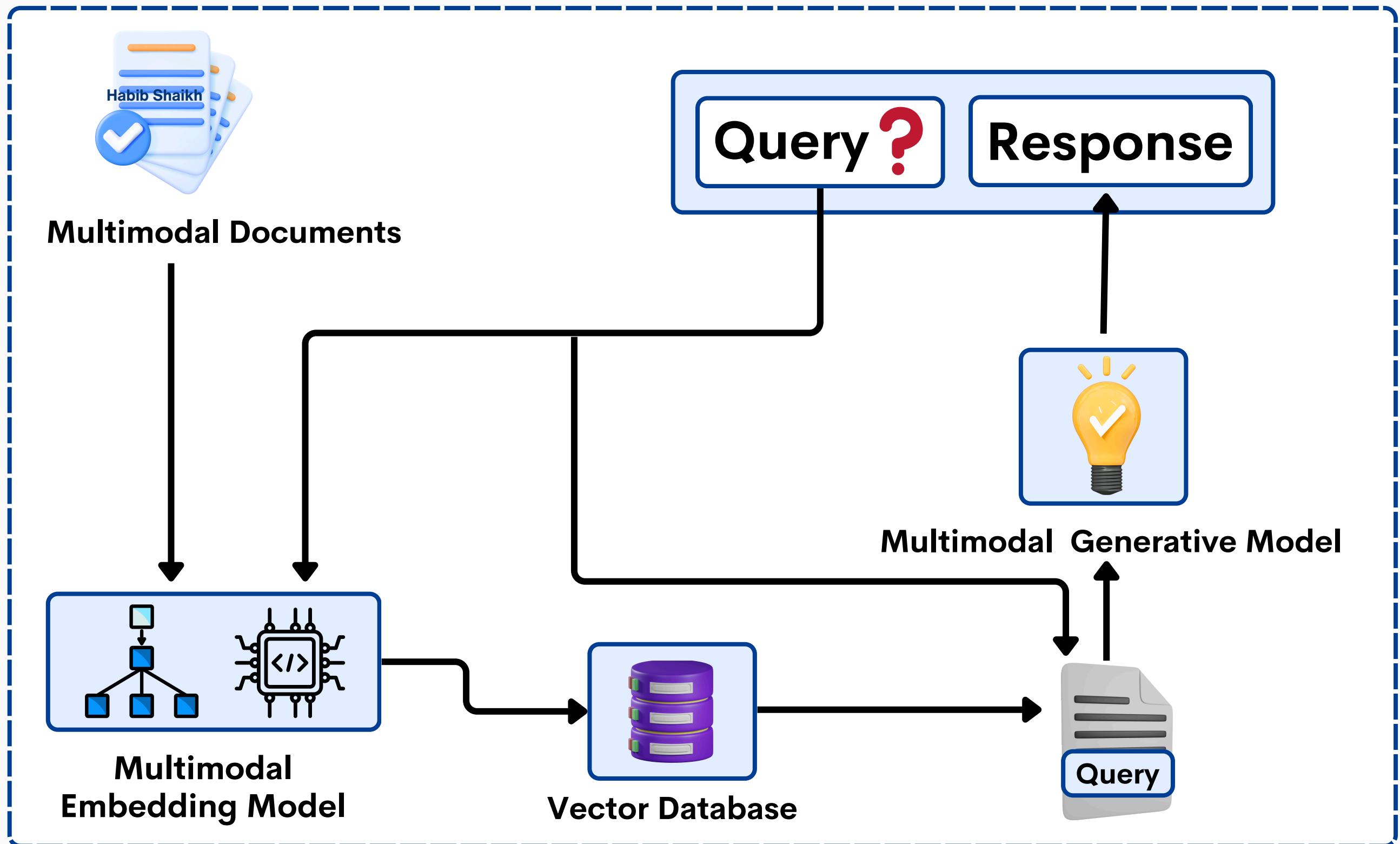
AGENTIC RAG (MULTI-AGENT)



- Multi-agent collaboration: AI agents refine retrieval.
- Task division: One retrieves, one ranks, one generates.
- Example: Legal assistant with agents for case retrieval and summary.

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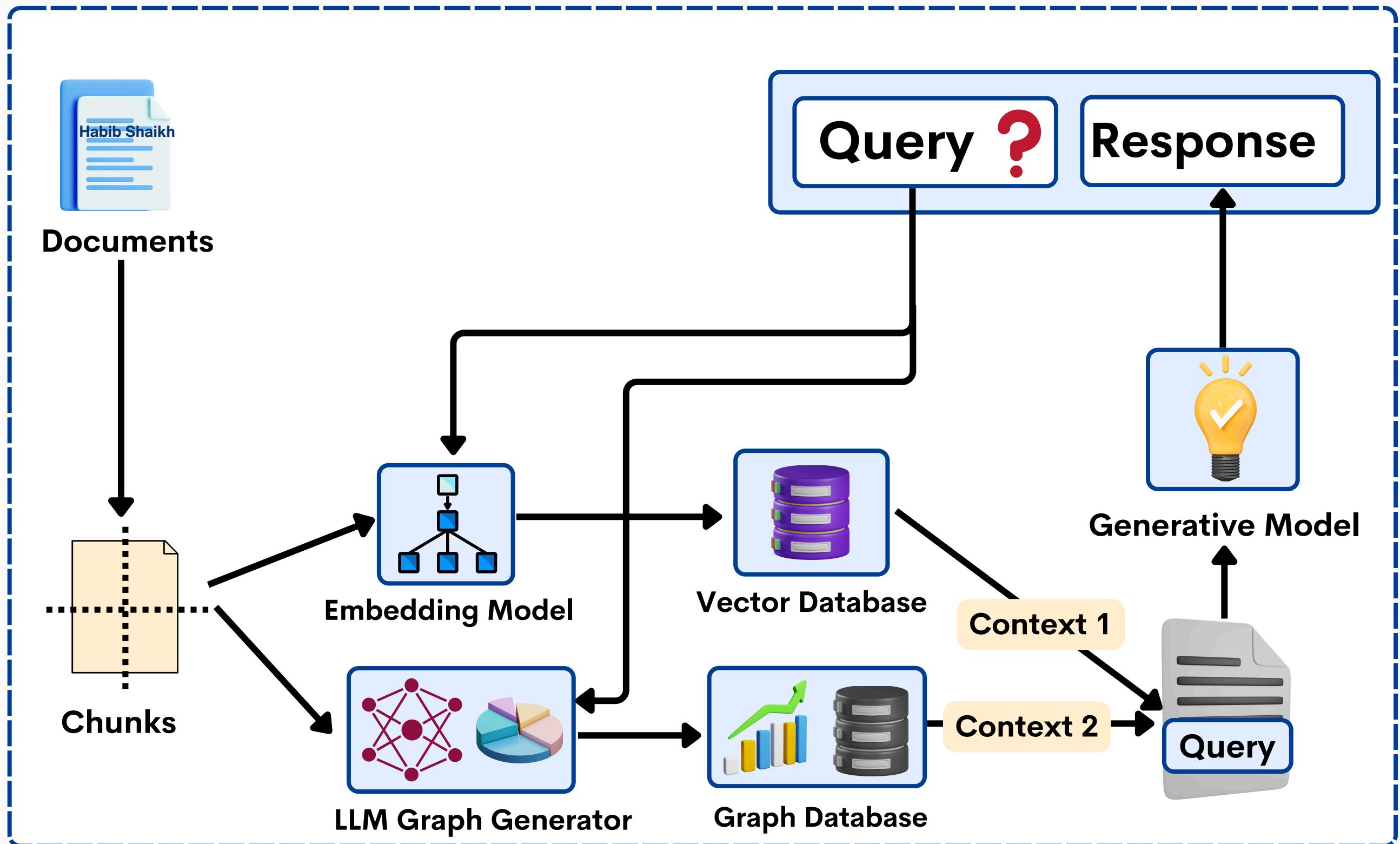
MULTIMODAL RAG



- Retrieves from text, images, video, or audio.
- Processes multiple data formats for richer context.
- Example: AI analyzing patient records alongside medical imaging.

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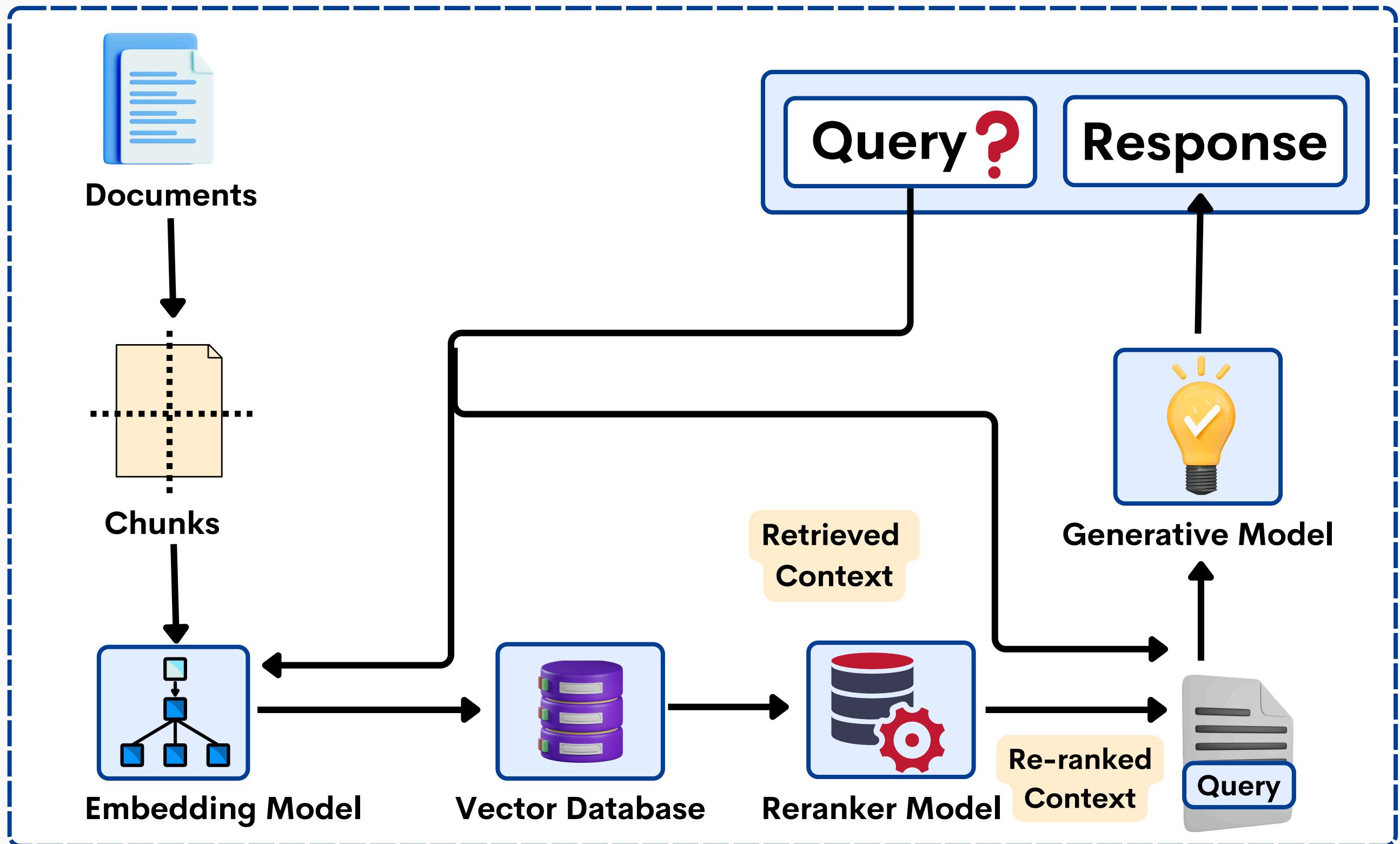
HYBRID RAG



- Combines keyword-based + vector search for better accuracy.
- Balances relevance and contextual understanding.
- Example: AI-powered search engine mixing traditional and AI-driven retrieval.

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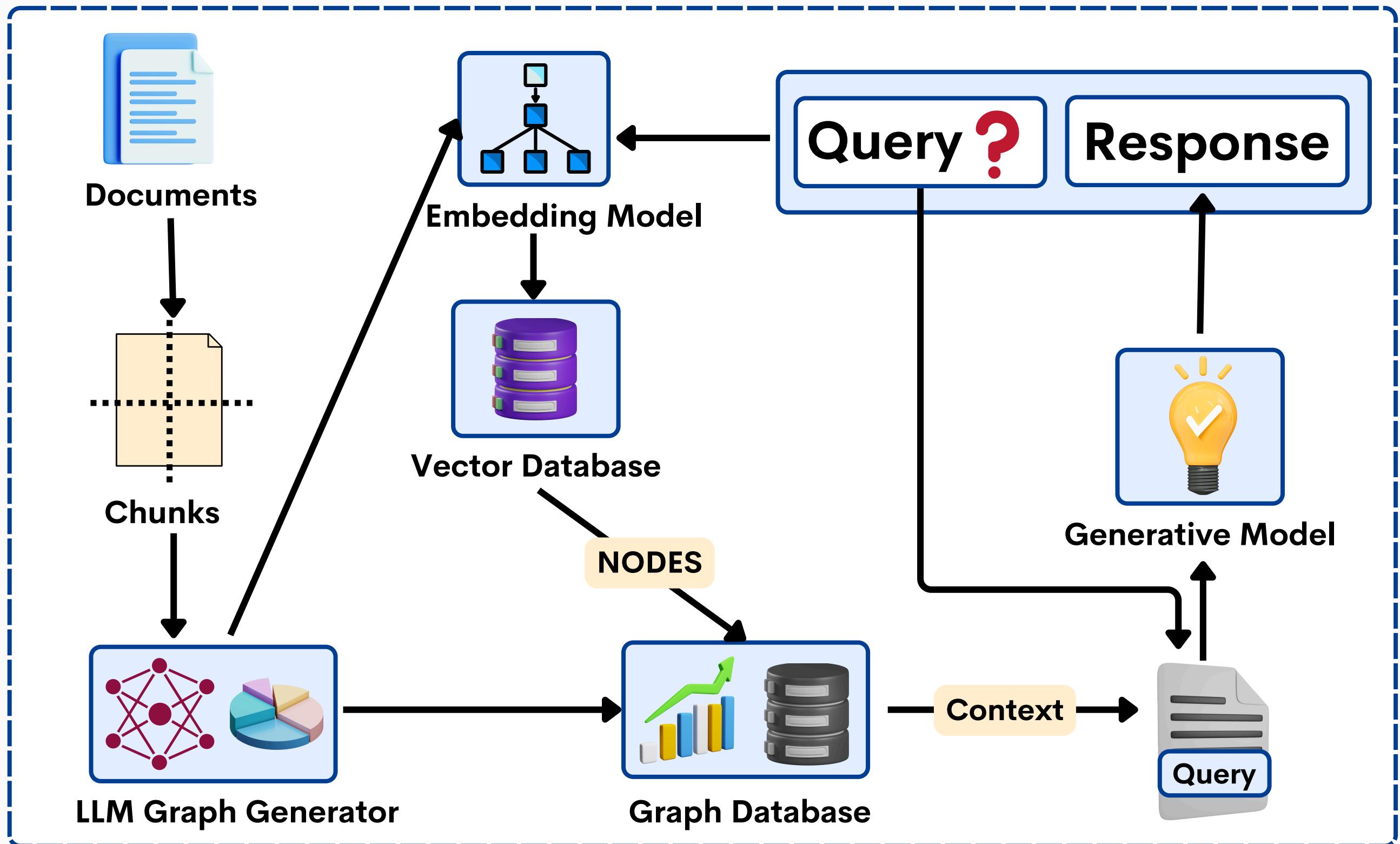
RETRIEVE-AND-RERANK RAG



- Initial retrieval followed by ranking step for improved precision.
- Uses deep learning models for ranking relevance.
- Example: AI filtering top research papers before summarization.

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GRAPH RAG



- Uses knowledge graphs to improve retrieval structure.
- Enhances AI's reasoning with relationships between entities.
- Example: AI-powered drug discovery mapping molecule interactions.

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