

Indexing and Retrieval Part- 2

Instructors

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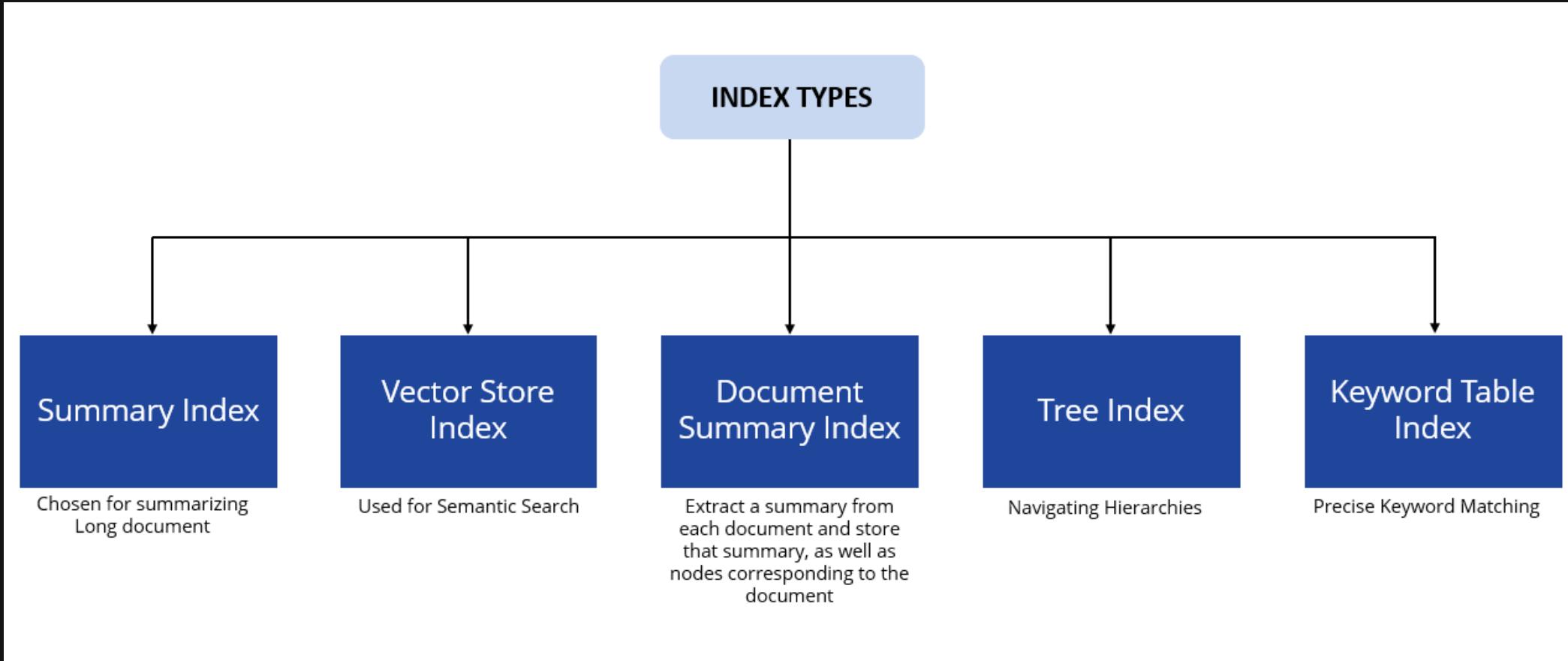
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Index Types



Limitations of Vector Store and Summary Index

Vector Store Index

- Computationally intensive due to high-dimensional vector operations
- May require significant storage space for large datasets.

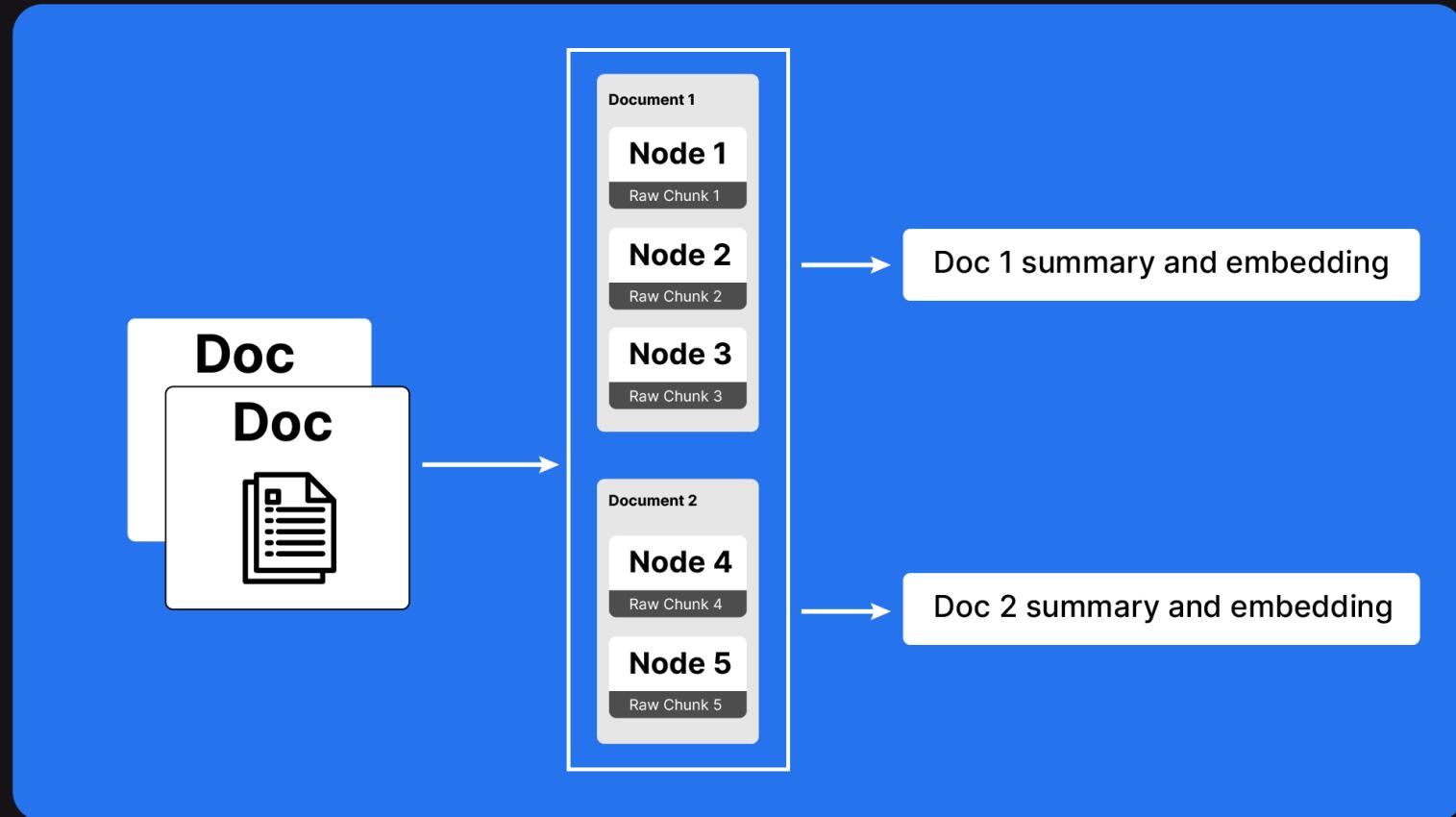
Summary Index:

- Only provides condensed summaries, which might miss detailed information.
- Less effective for understanding the full context of large documents.

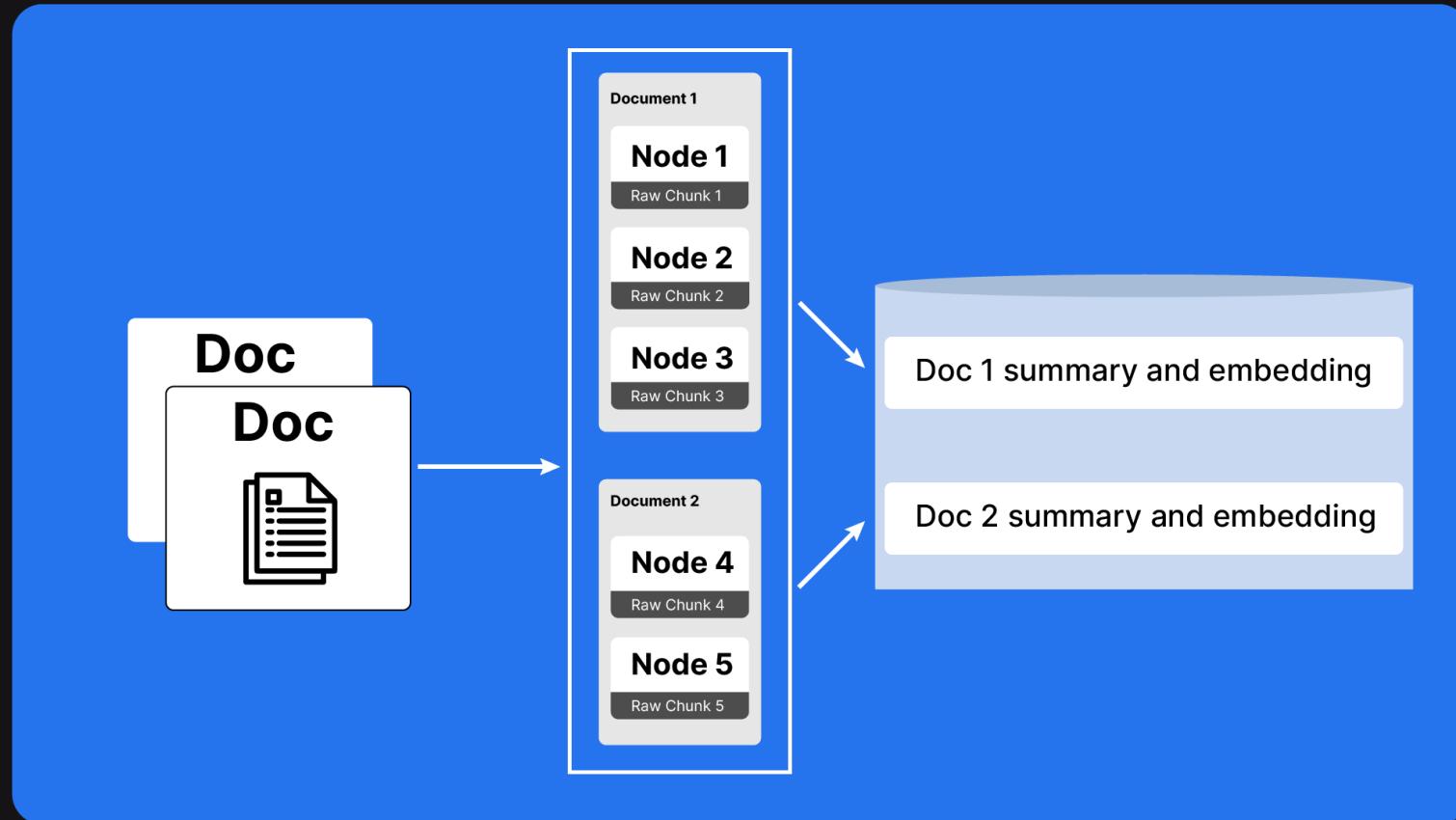
3. Document Summary Index

- **Balanced Approach:** Combines summary efficiency with detailed context.
- **Contextual Retrieval:** Extracts nuanced information efficiently.
- **Enhanced Detail:** Provides richer insights from large documents.
- **Optimal Efficiency:** Fast retrieval with comprehensive content.

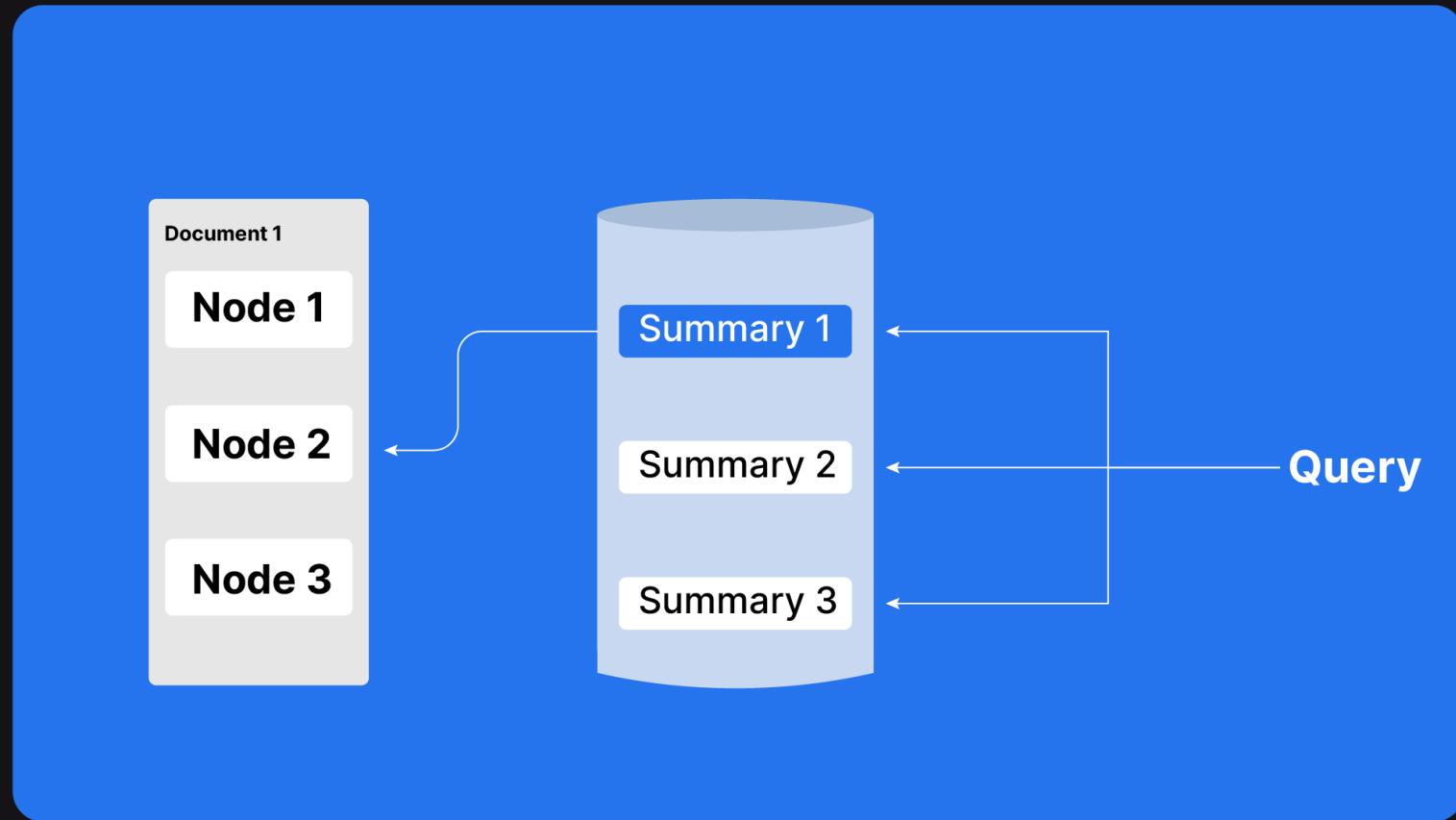
Document Summary Index



Document Summary Index



Document Summary Index Retriever



Document Summary Index Retriever Modes

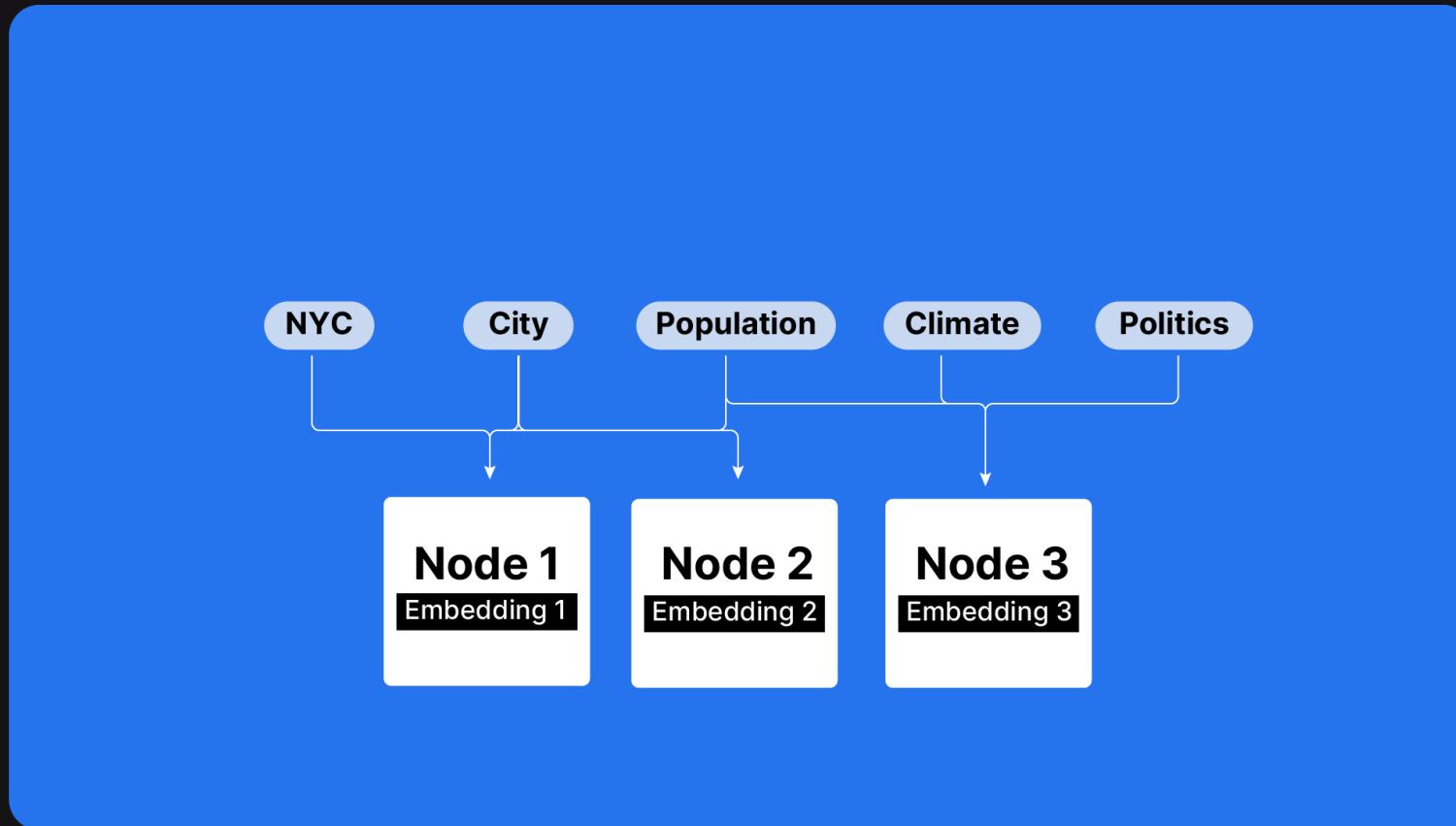
LLM-based retrieval

- Uses large language models (LLMs) to understand summaries and assess relevance.
- More accurate and nuanced understanding of document content.
- Costlier and Slower retrieval time, especially for large datasets.

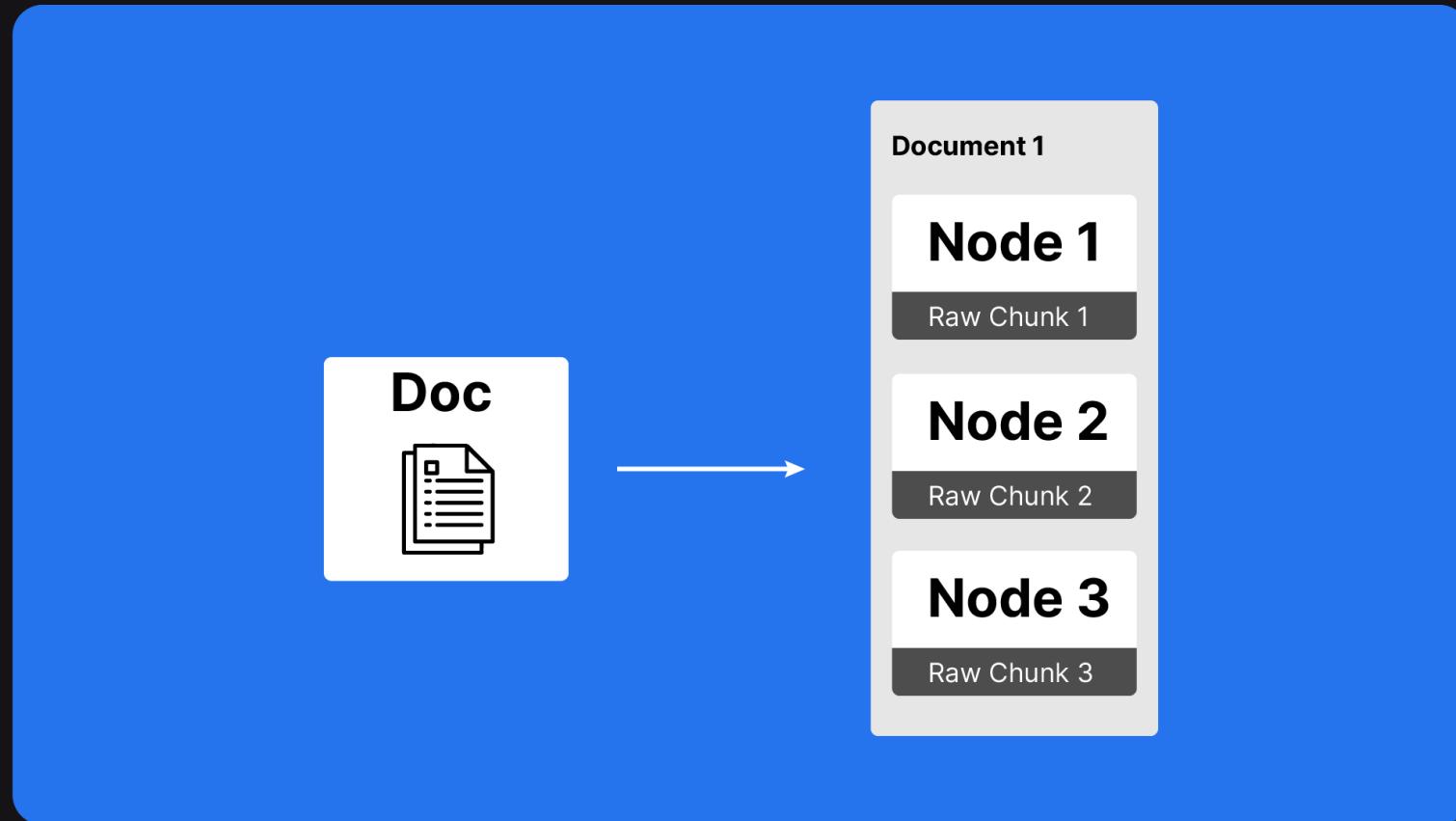
Embedding-based retrieval

- Uses embeddings (numerical representations) to compare summaries and queries.
- Potentially faster retrieval, especially for large datasets.
- Might be less accurate in capturing complex meaning within summaries.

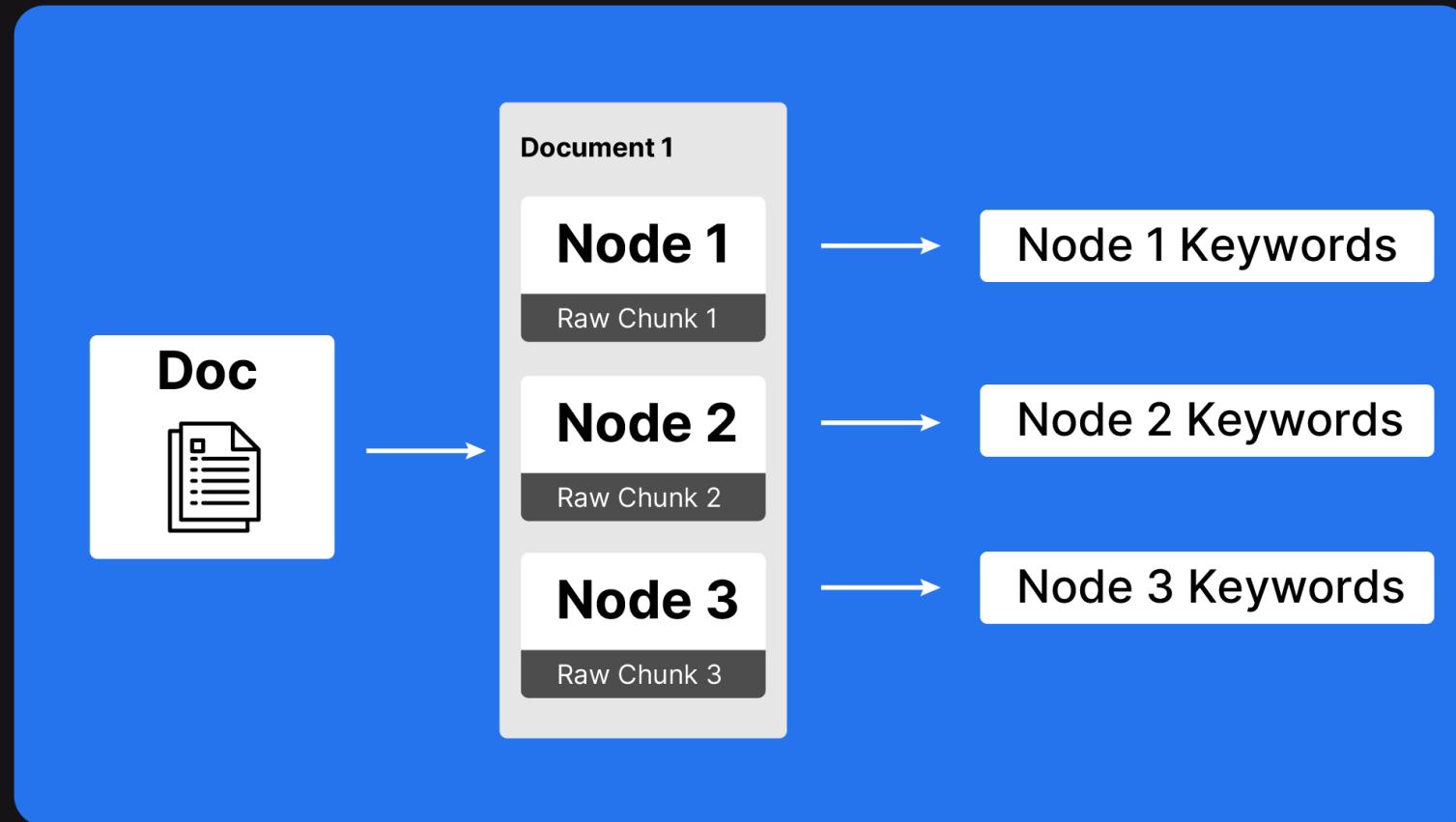
4. Keyword Table Index



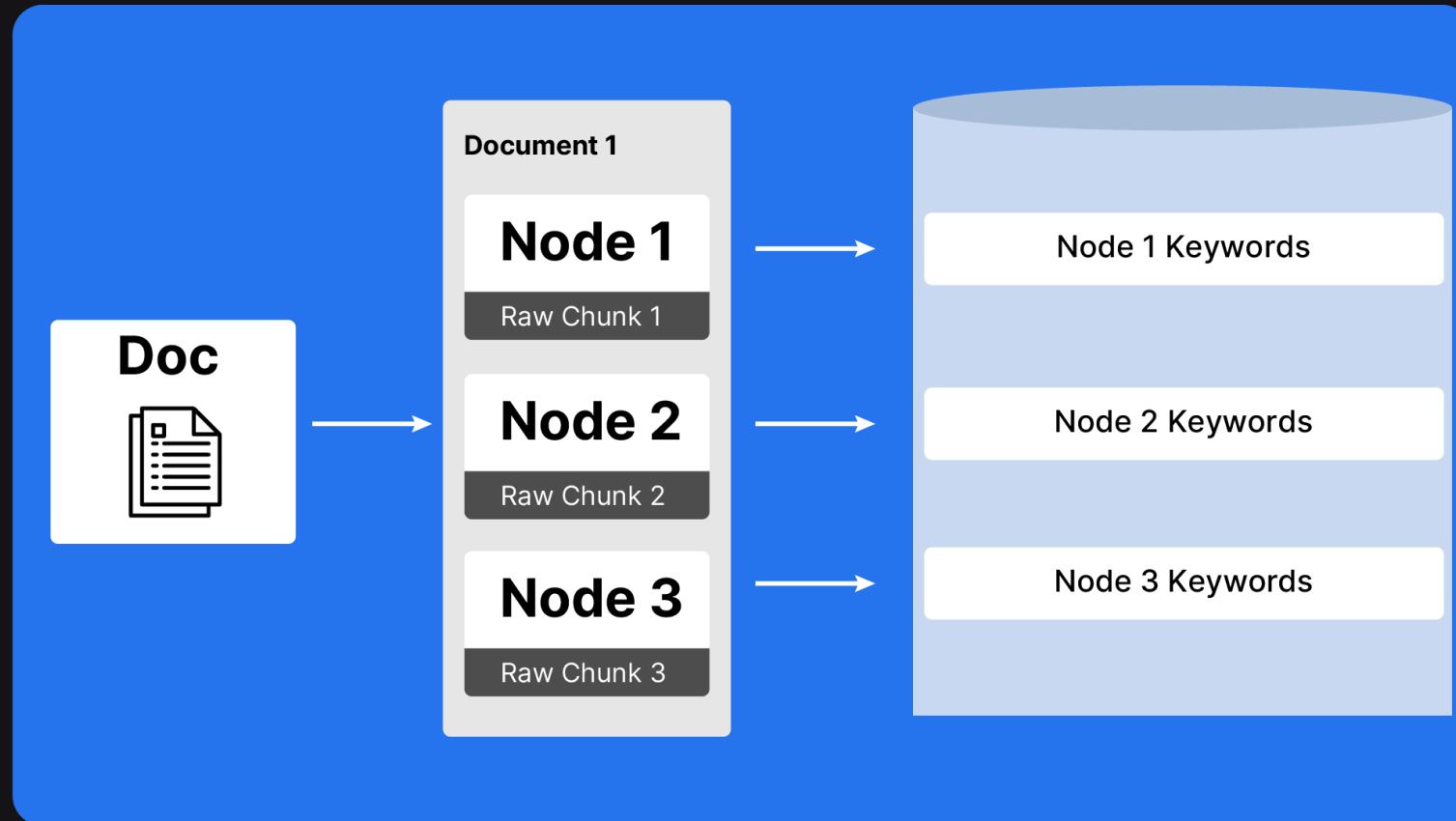
Keyword Table Index



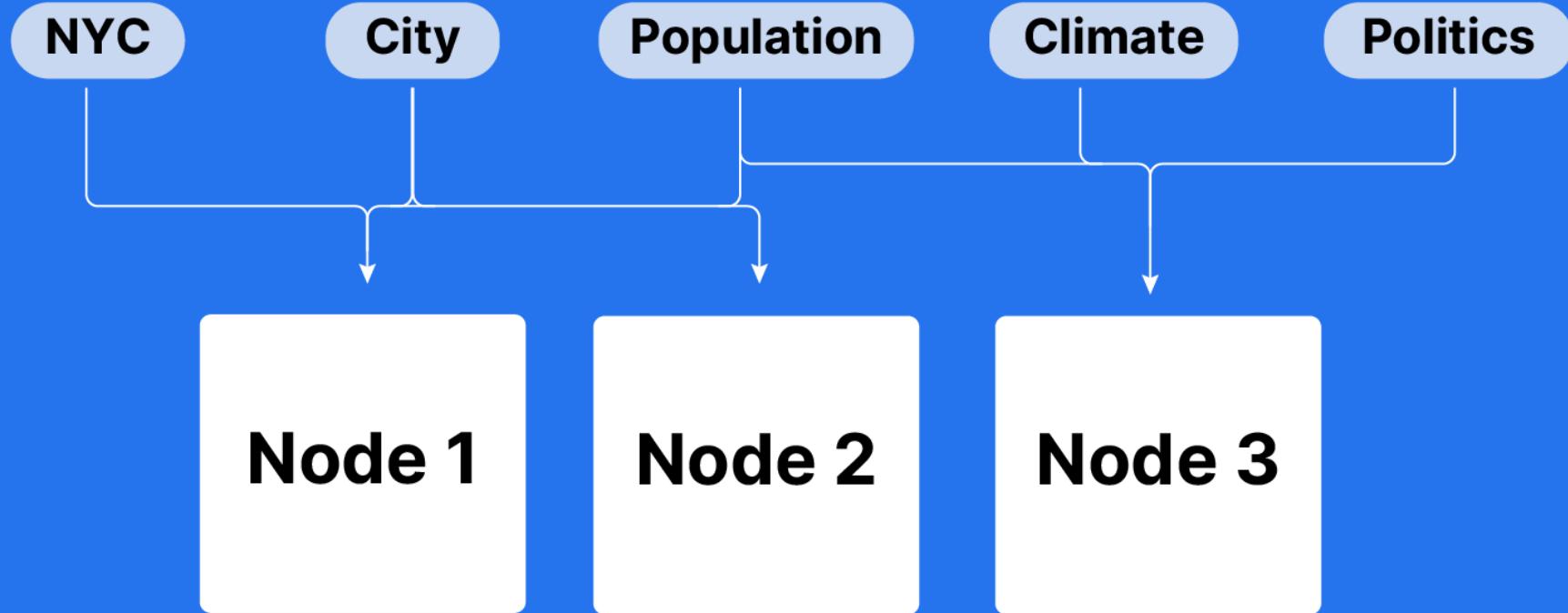
Keyword Table Index



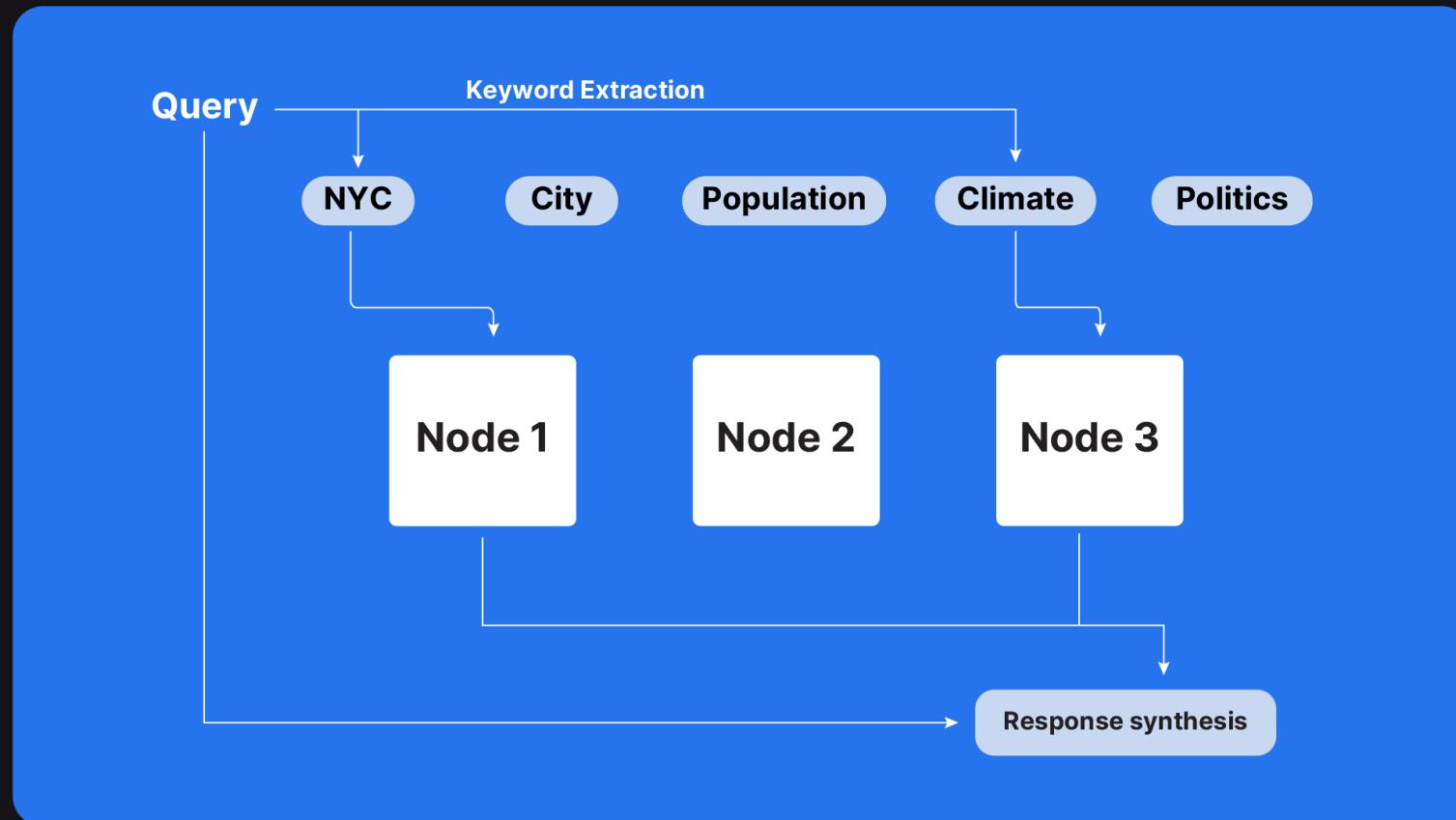
Keyword Table Index



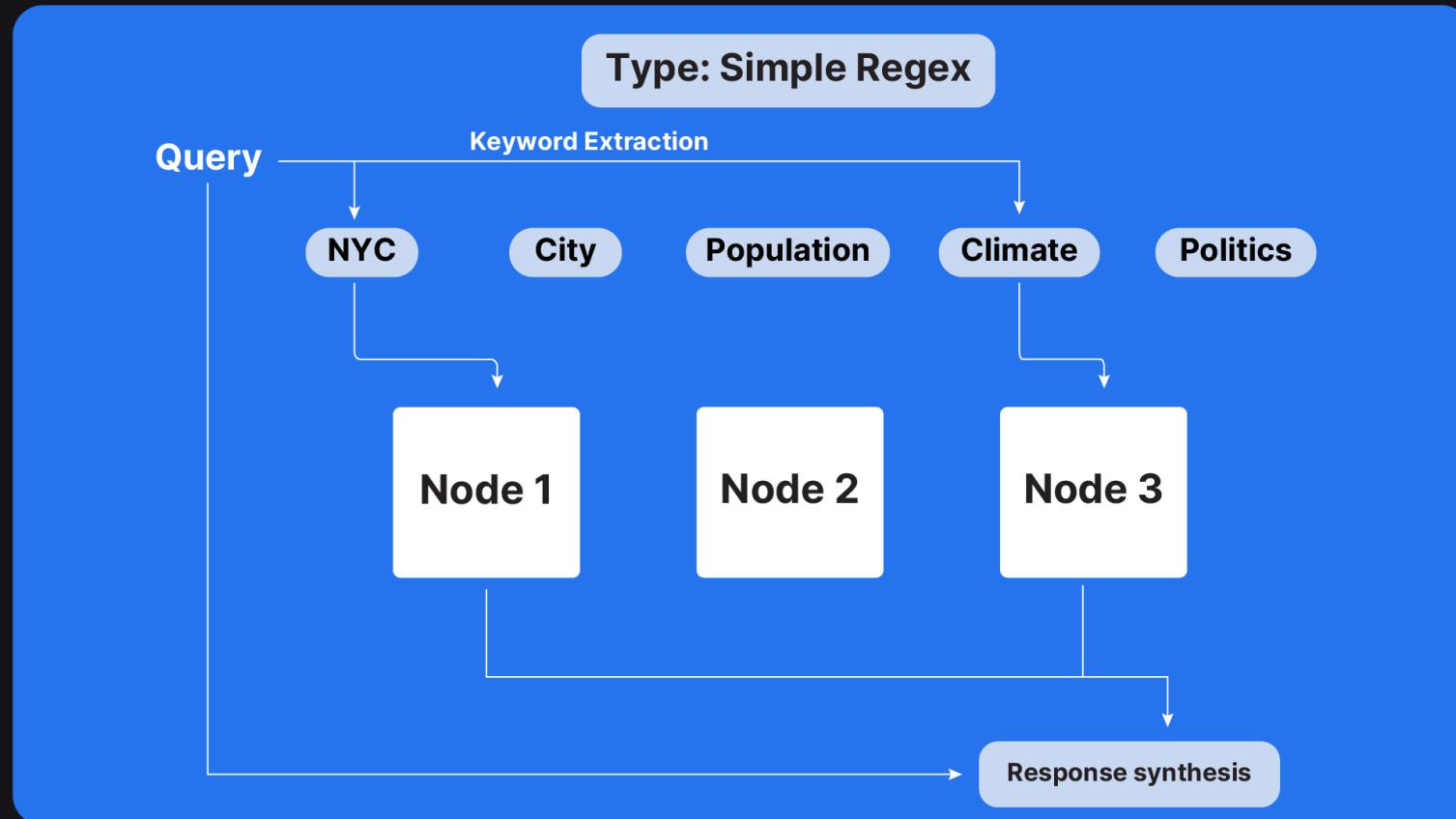
Keyword Table Retriever



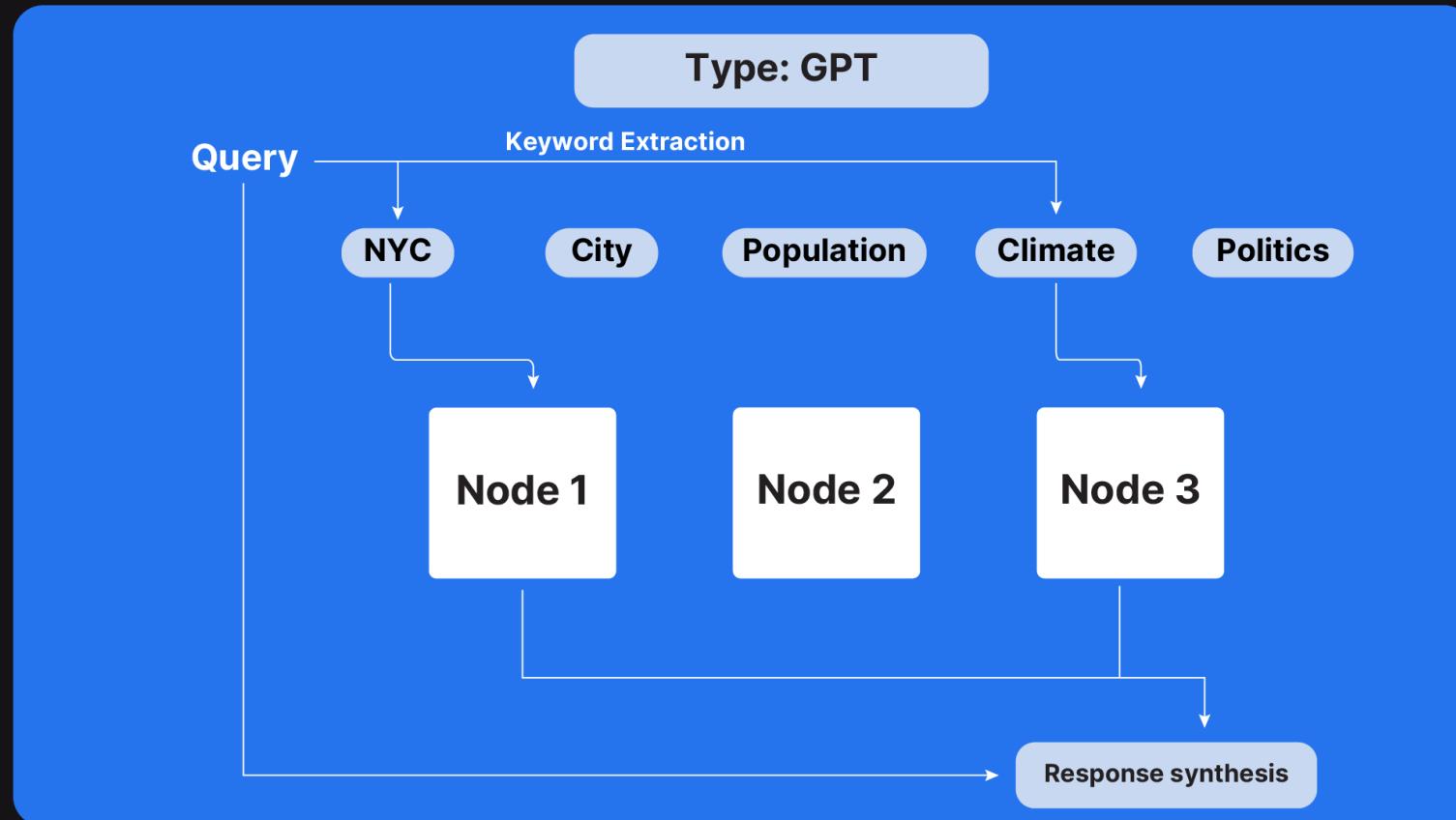
Keyword Table Retriever



4A. Keyword Table Simple Retriever



4B. Keyword Table GPT Retriever



Thank You