

Optimizing Data Retrieval Techniques

Concepts and Applications of Semantic Indexing



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Importance of Retrieval Optimization



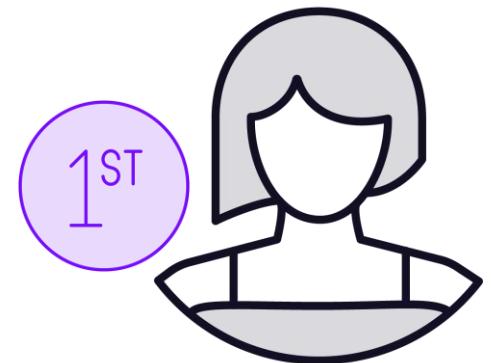
Retrieval Optimization

Optimized retrieval ensures faster, more accurate access to relevant knowledge in large datasets.

Poor retrieval wastes time, reduces trust, and negatively impacts user decision-making and efficiency.



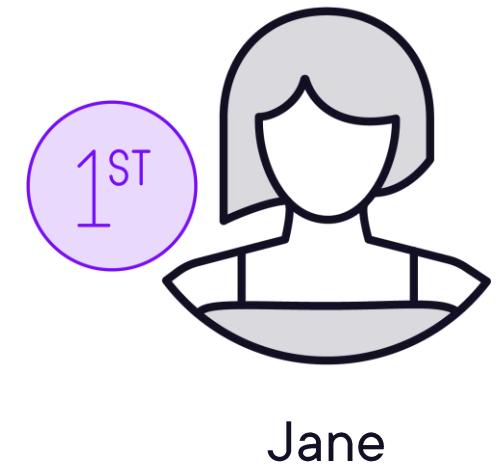
Why Is Retrieval Optimization Important?



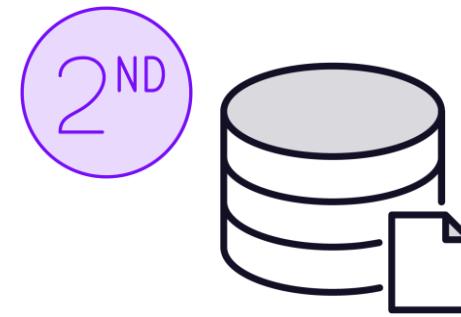
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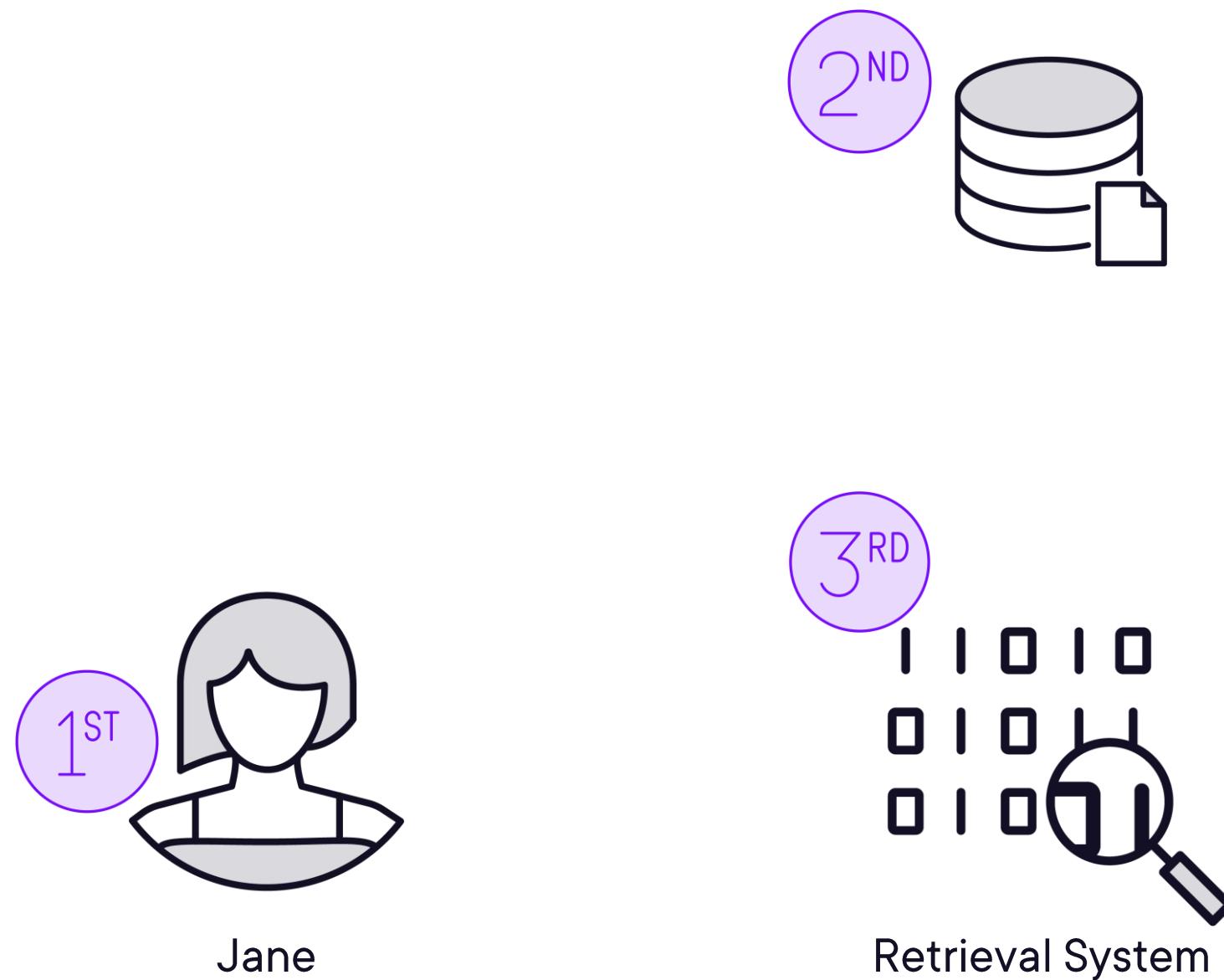
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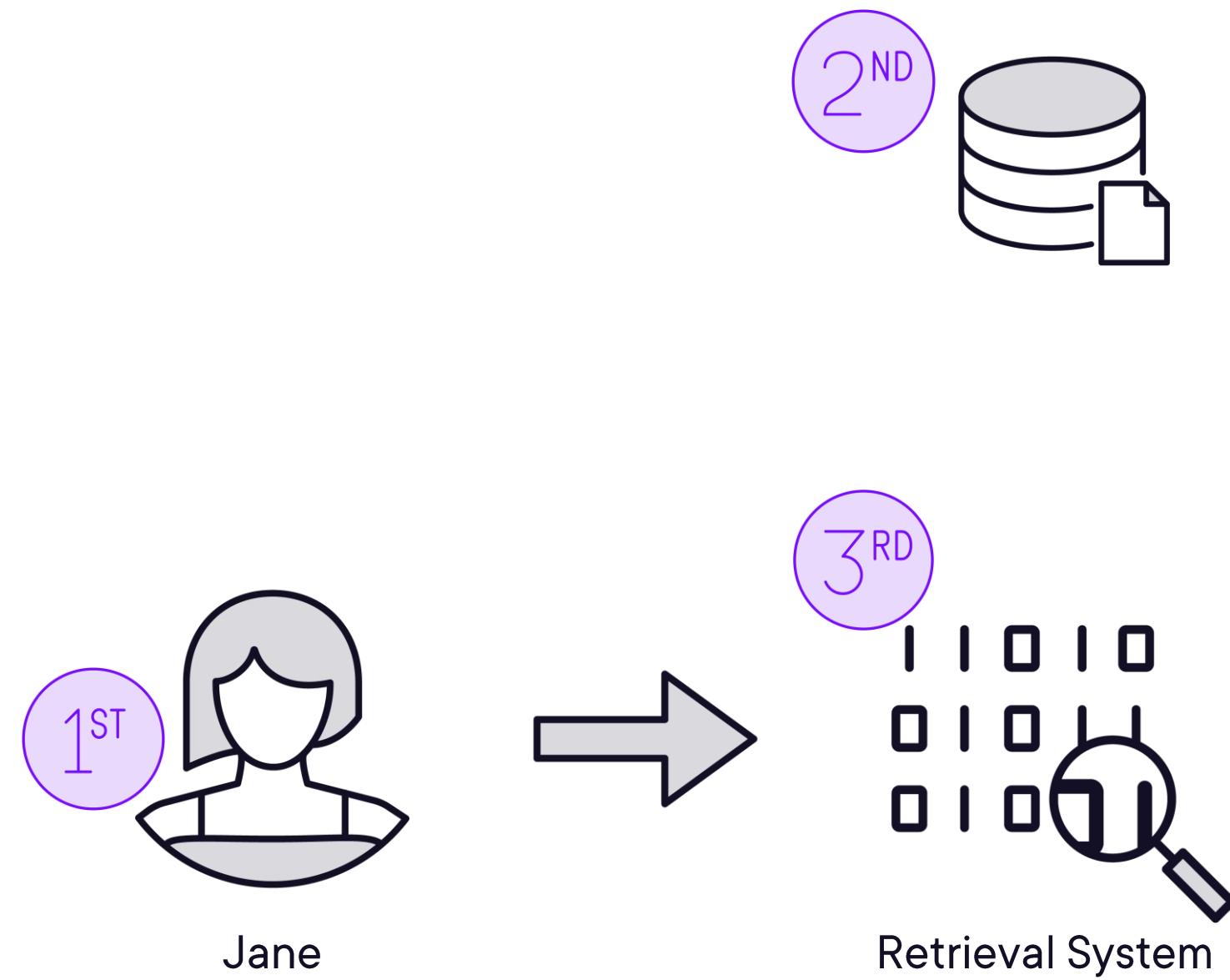
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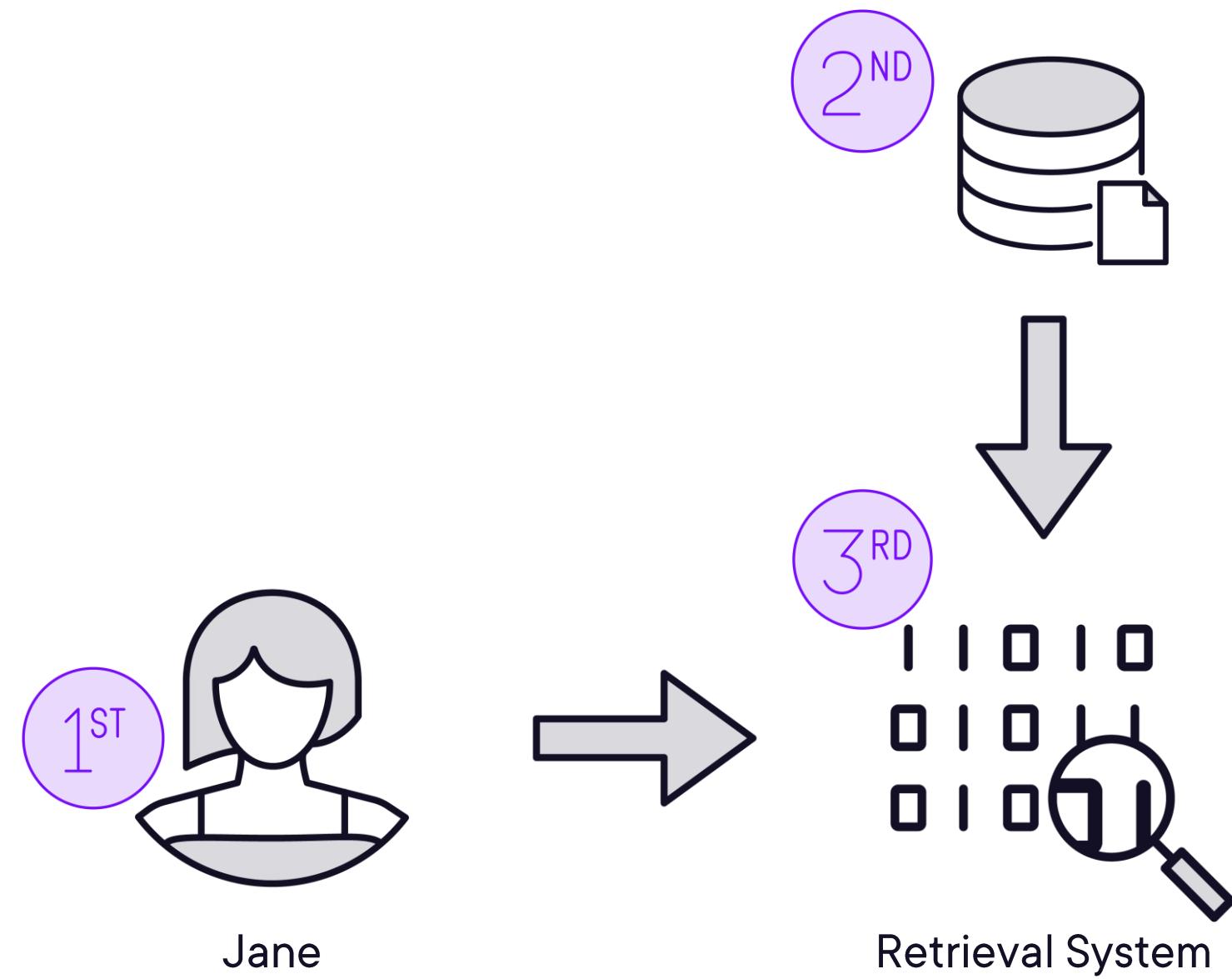
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Context C



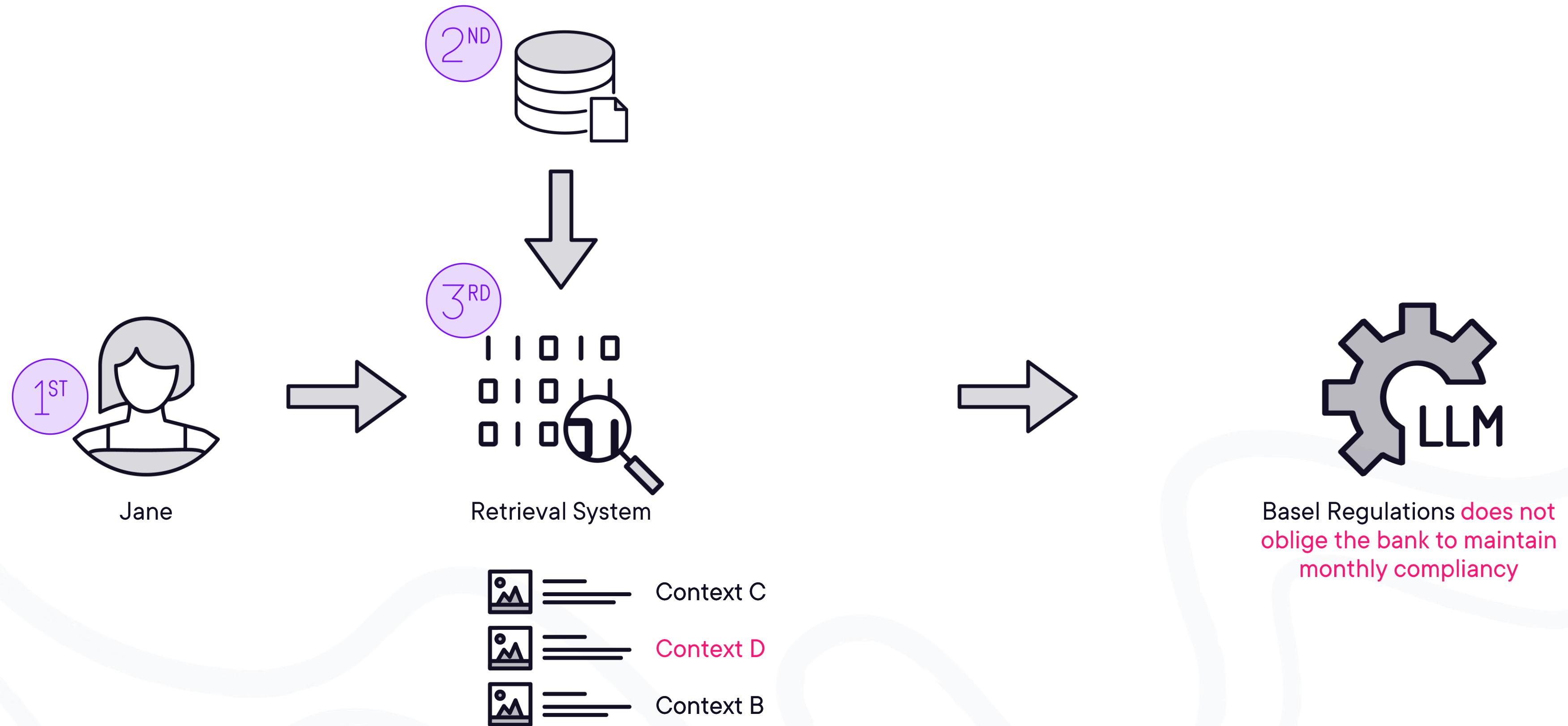
Context D



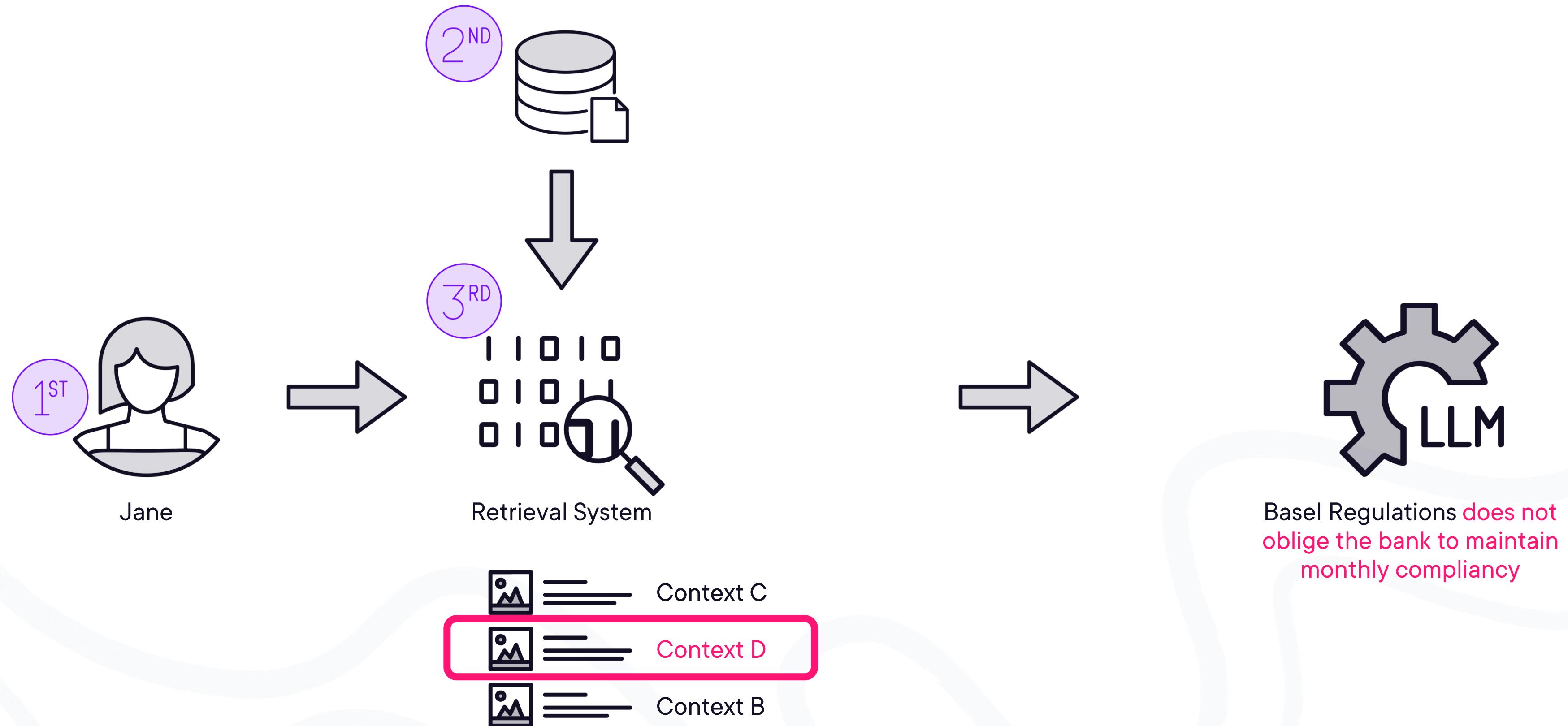
Context B



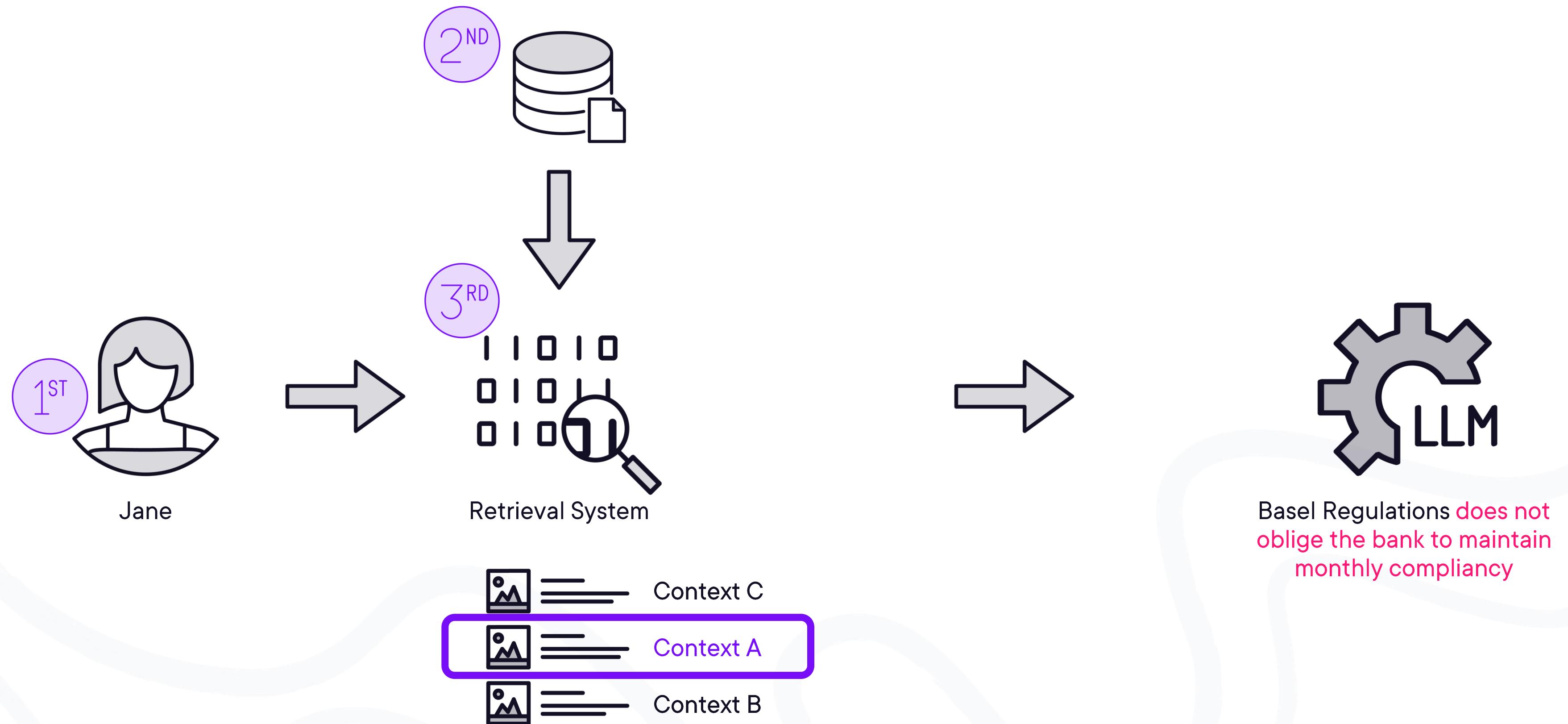
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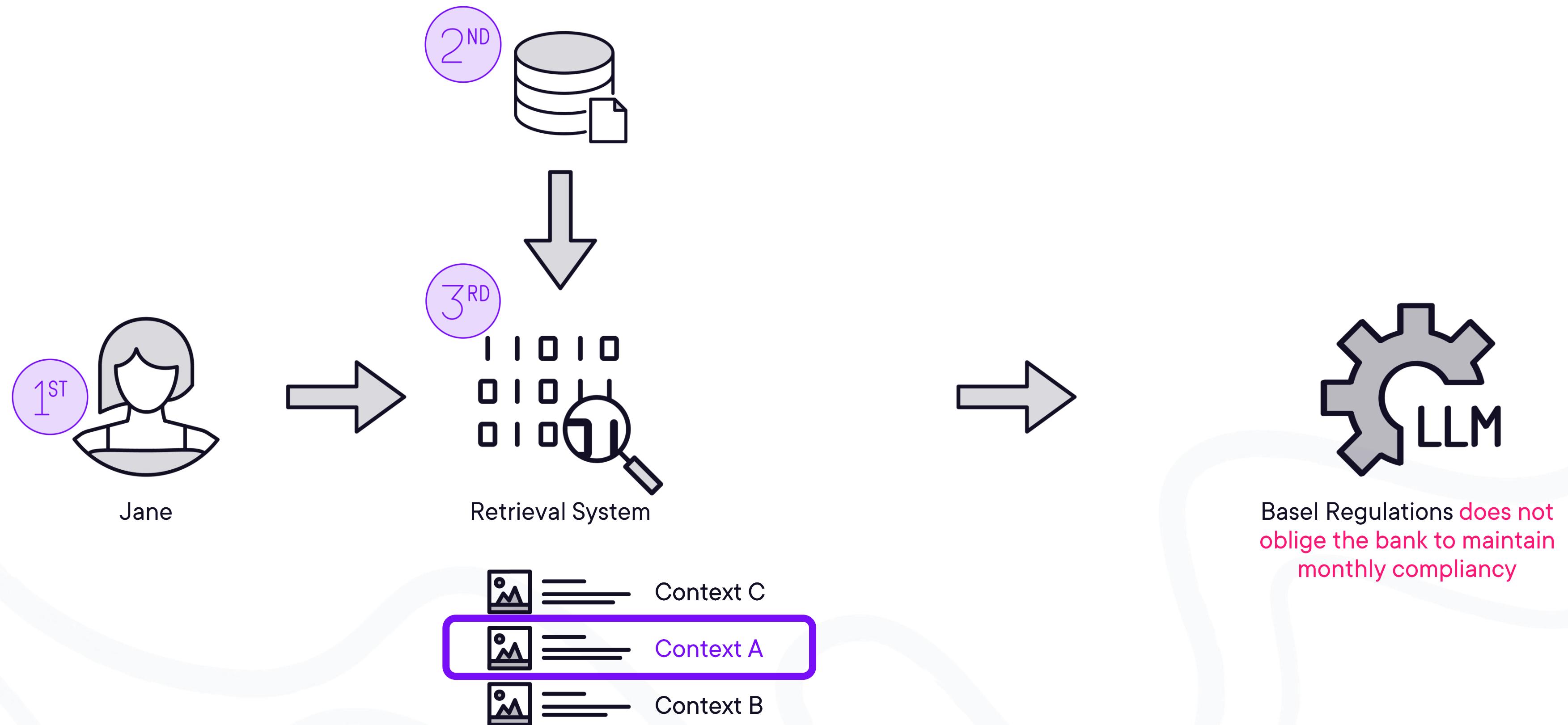
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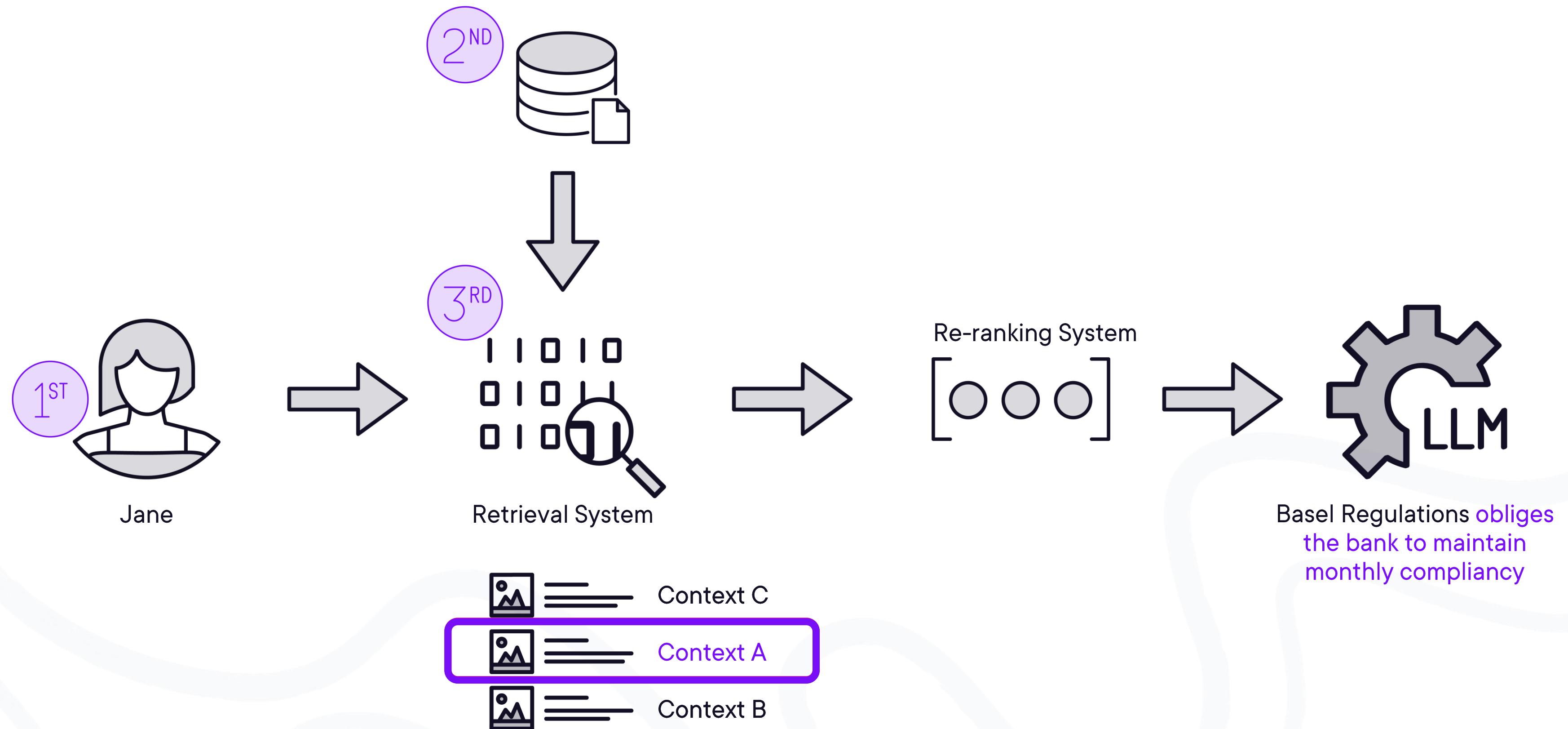
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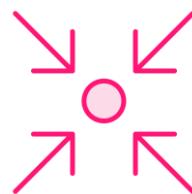
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Benefits of Retrieval Optimization



Faster access to relevant information



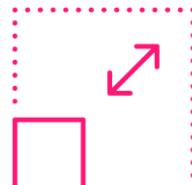
Improved search accuracy and precision



Enhanced user satisfaction and trust



Reduced computational overhead and costs



Scalable foundation for advanced AI tasks





Techniques for Optimizing Retrieval



Techniques for Optimizing Retrieval

Semantic indexing

Query reformulation

Hybrid search

Reranking methods



Relevance Scoring and Reranking



Relevance Scoring

Measures how well a document matches the user's query intent and context.

Guides ranking algorithms to prioritize the most useful and meaningful results first.



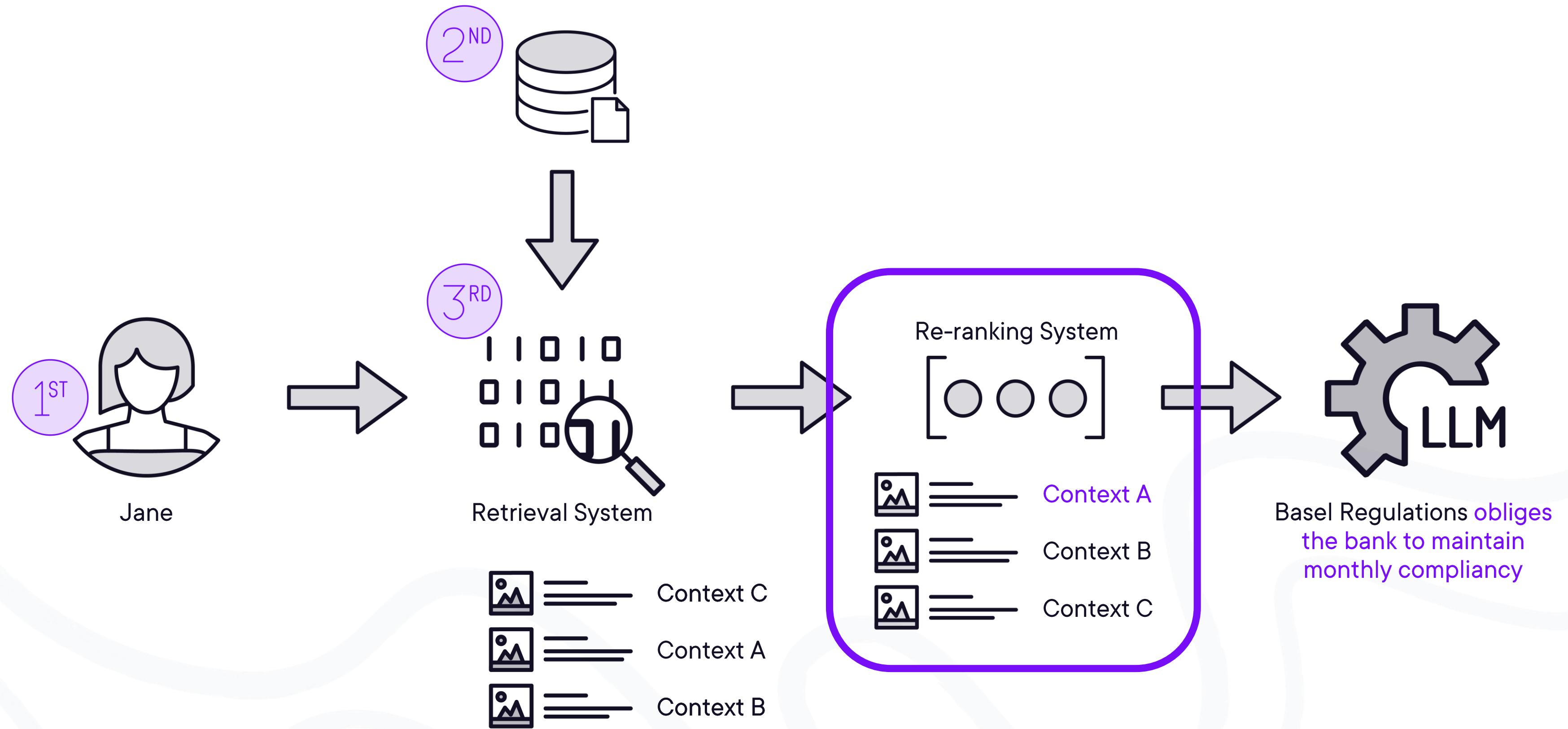
Re-ranking Concepts

Reorders initial search results using advanced scoring models to prioritize the most relevant items.

Often leverages machine learning or transformer models to refine ranking and improve retrieval quality.



Relevance Scoring and Re-ranking



Relevance Scoring and Re-ranking Methods

Basic re-ranking and filtering

**Advanced re-ranking with
machine learning**



Demo: Retrieval Optimization

