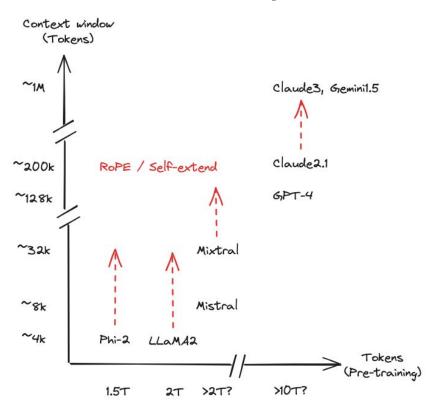


## **RAG from scratch: Overview**

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Software Engineer, LangChain
<a href="mailto:@RLanceMartin">@RLanceMartin</a>



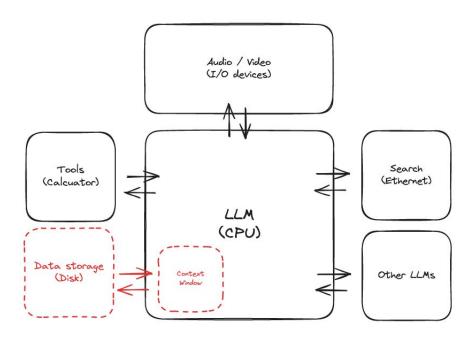
# LLMs haven't seen your data



https://huggingface.co/blog/mixtral

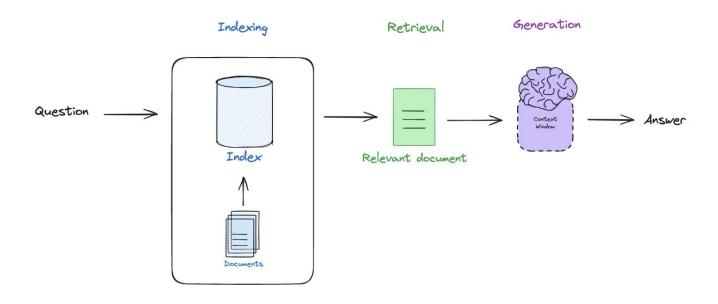


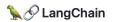
## Connecting LLMs to external data is a central need



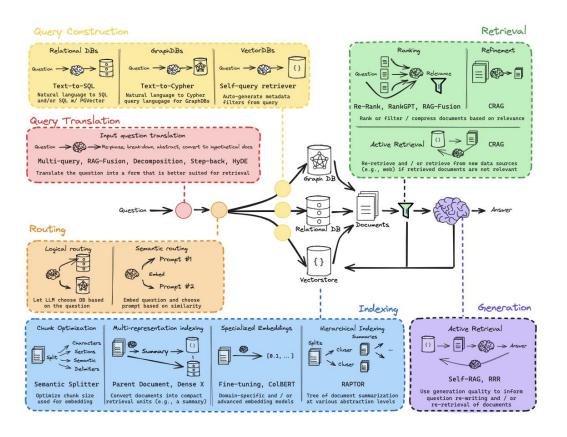


# Retrieval Augmented Generation





### We'll start from scratch, and build up to state of the art in RAG





#### Outline

#### **Basics**

- Indexing
- Retrieval
- Generation

#### **Advanced**

- Query transformations
- Routing
- Query construction
- Indexing
- Retrieval
- Generation



# Code walk-through