

FBRInsight

Smart Information Retrieval System
for FBR using LLM and RAG

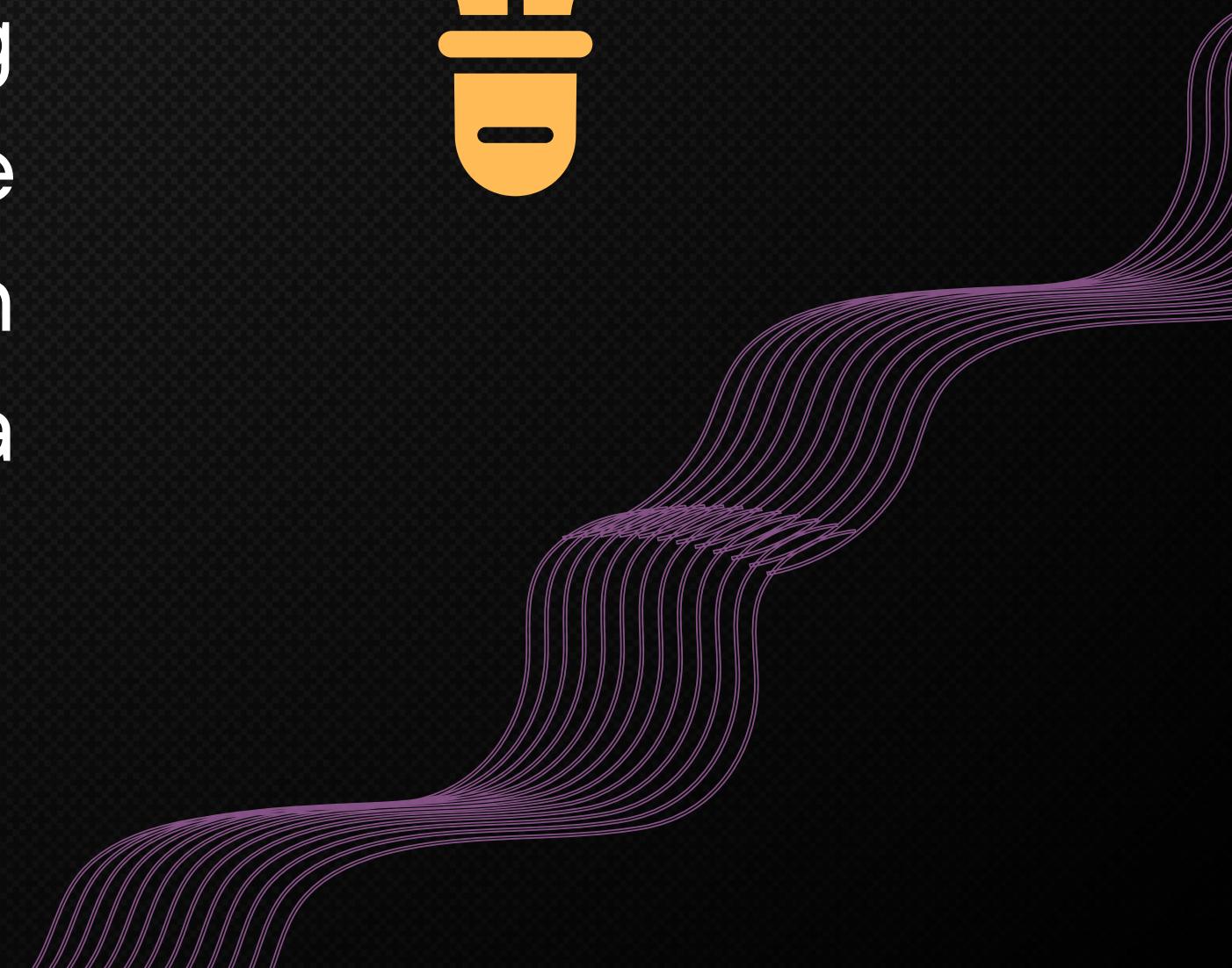
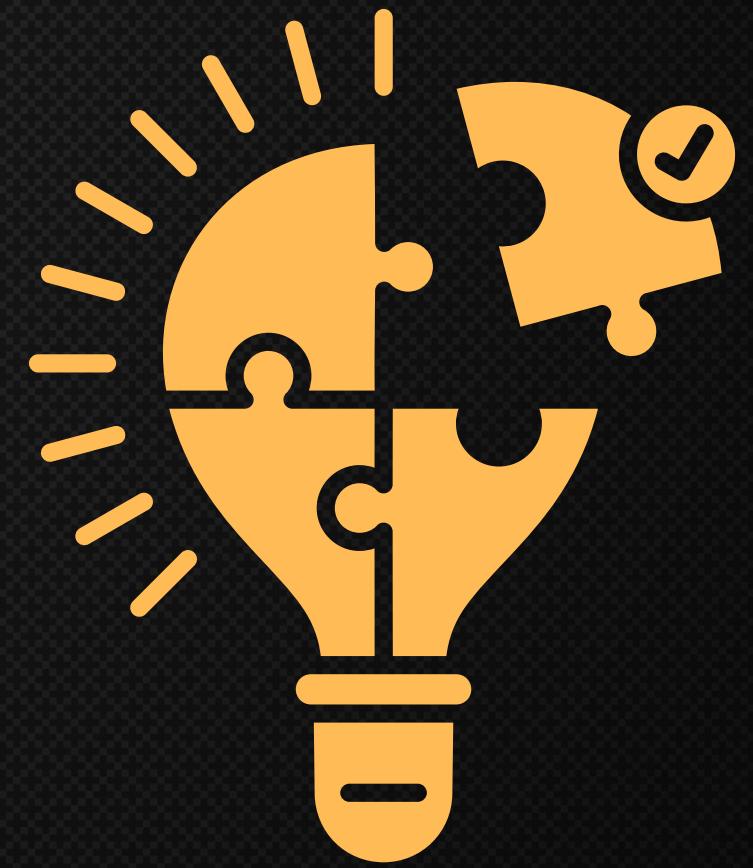
Problem

Searching for information on the Federal Board of Revenue (FBR) website is tough. There are lots of documents, making it hard for regular people to find what they need. It takes a long time, and sometimes, it's nearly impossible to get the right information.



Solution

We're creating a helpful chatbot called "FBRInsight." This chatbot will be trained on all the FBR documents Data. So, instead of searching and getting frustrated, users can just ask the chatbot questions, and it will give them the right answers. It's like having a smart assistant for FBR information.



Main Goals

1- User-Friendly Interaction

- Intuitive chatbot interface for easy communication.

2- Efficient Retrieval Process

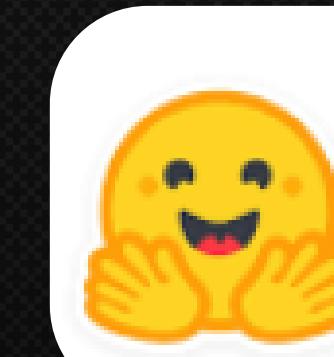
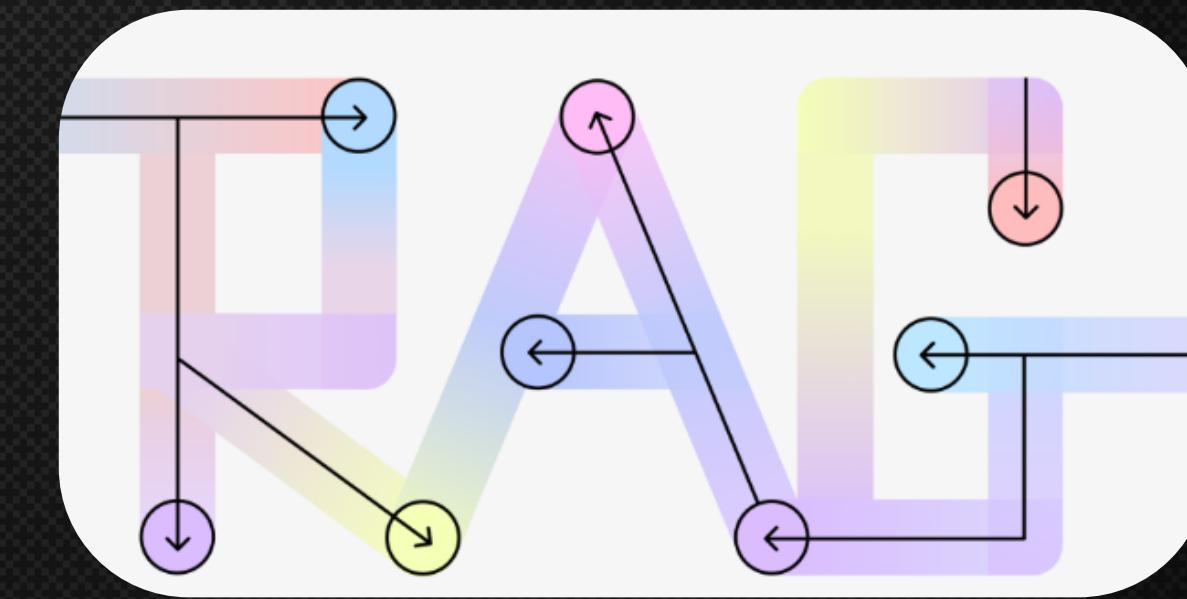
- Reduces time and effort in finding relevant FBR information.

3- Enhanced Accessibility

- Widens accessibility for a diverse user base..



Technologies



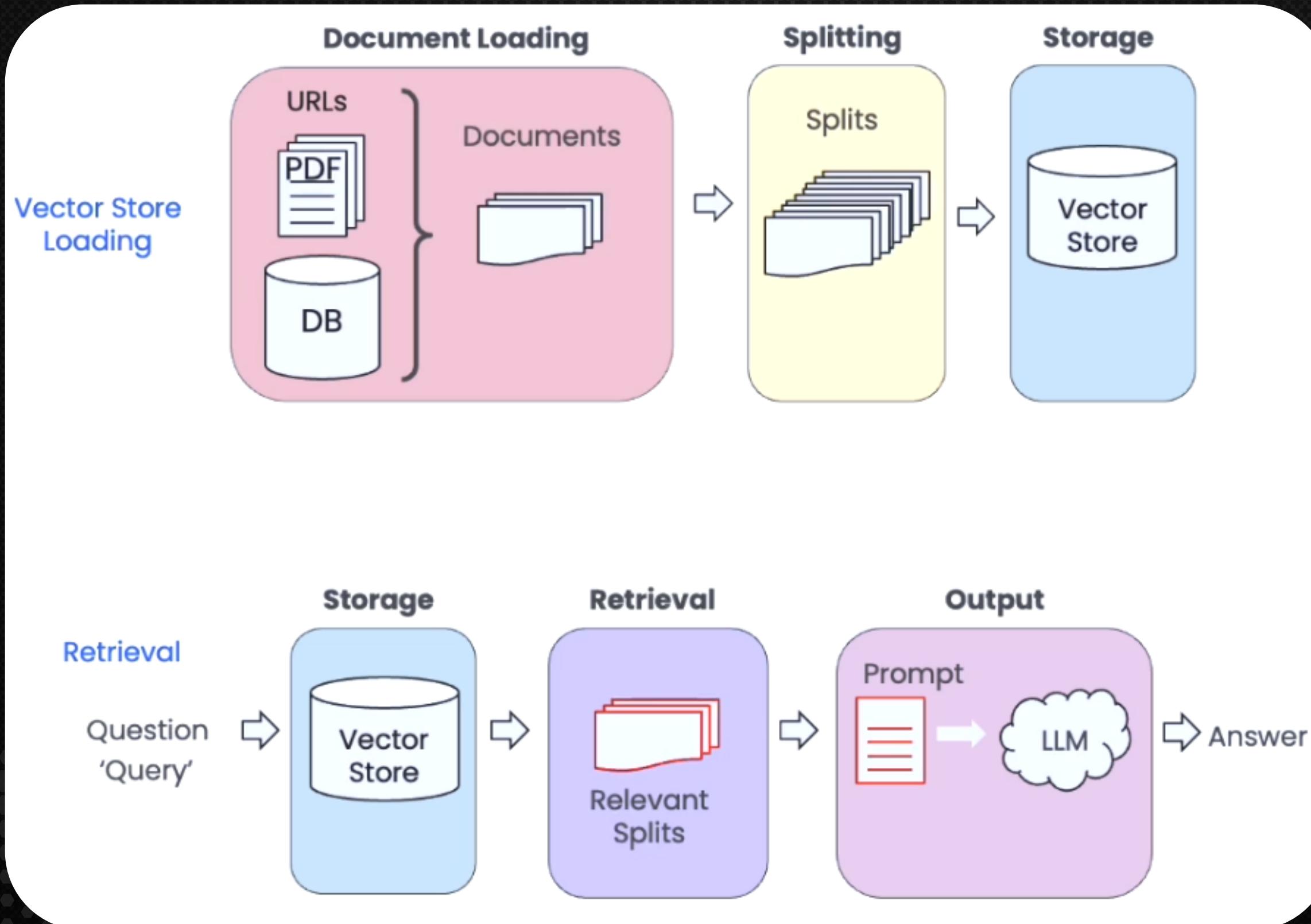
Hugging Face

Tools and Languages

- Python
- Open AI
- LLM
- RAG
- Transformers
- NLP Libraries
- Dart



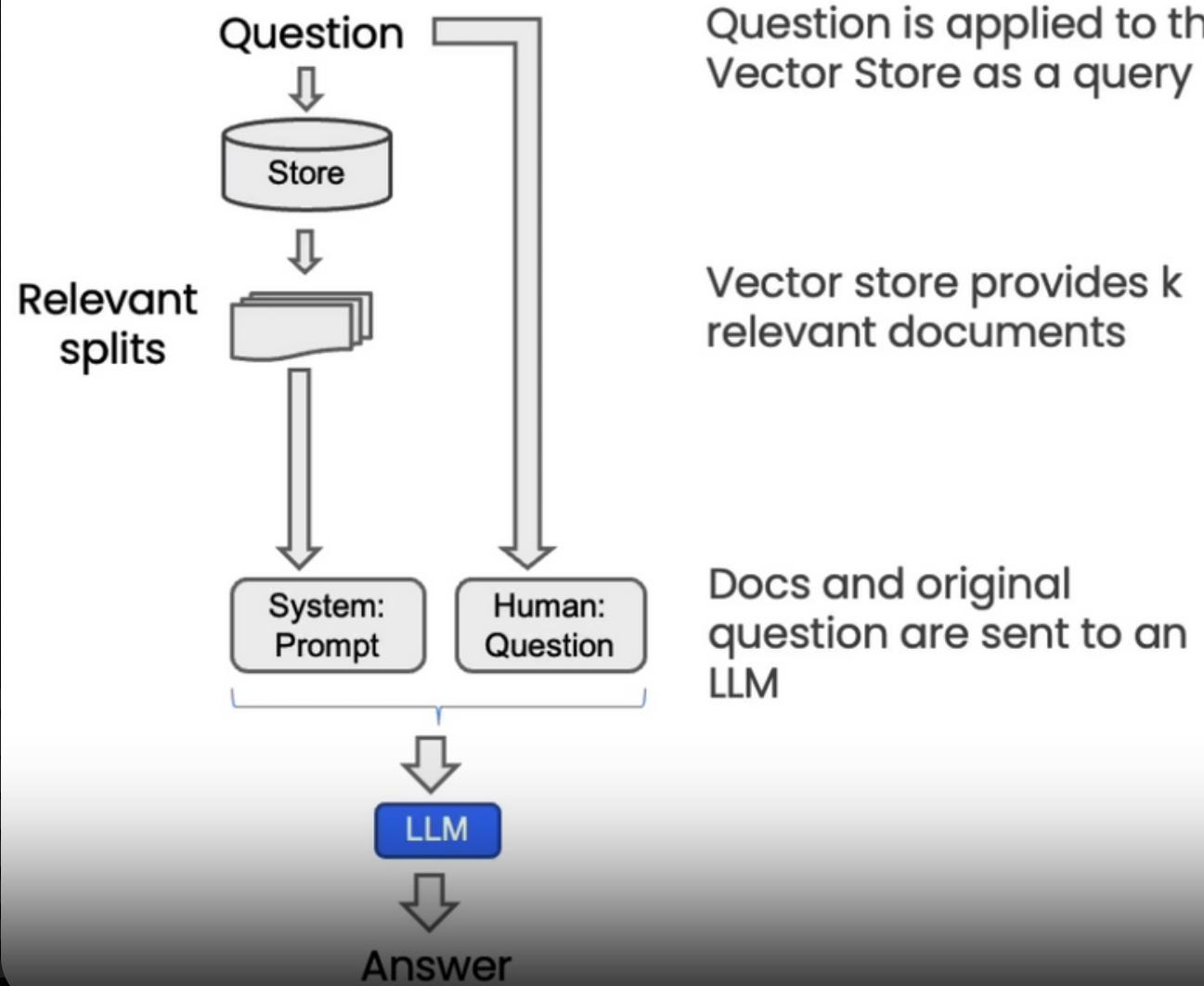
WORKFLOW



Algorithms and Techniques

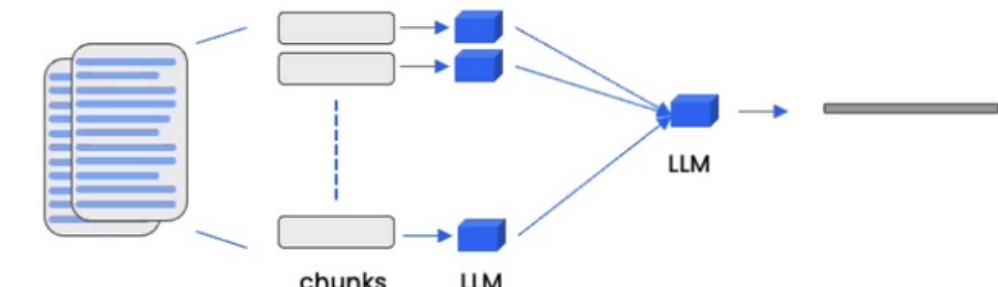
RetrievalQA chain

```
RetrievalQA.from_chain_type(, chain_type="stuff",...)
```

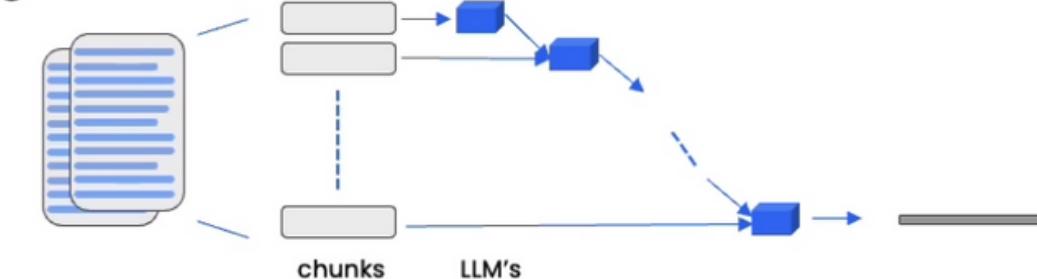


3 additional methods

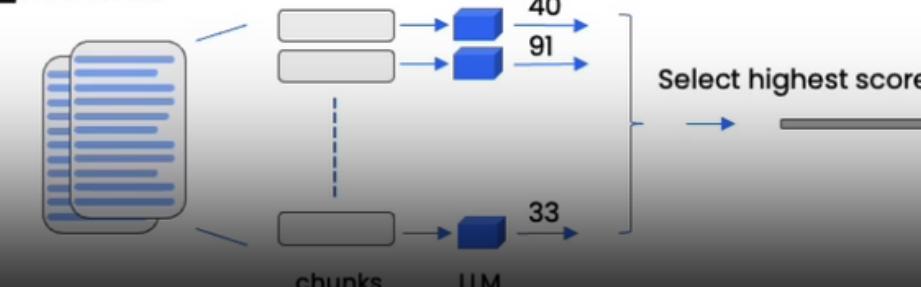
1. Map_reduce



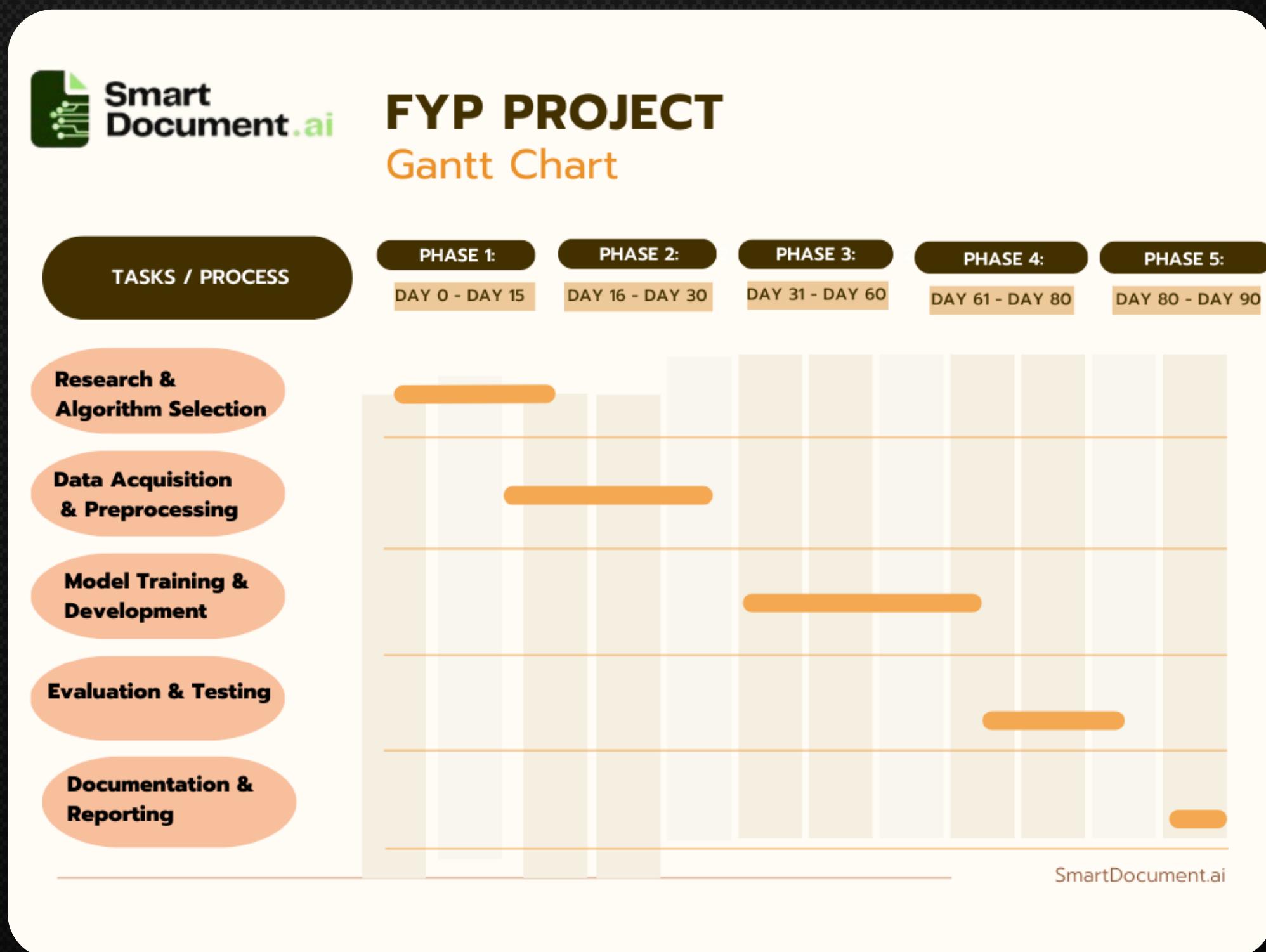
2. Refine



3. Map_rerank



Timeline



Thank You
