Project Definition

- S1/1/Mon: Project database opens – contact potential advisors
  - Self-defined projects are encouraged, with an agreeable supervisor
  - Previous projects can be seen in the online project library
  - Some projects have industry involvement
- S1/2/Mon: Selection and ranking of projects begins
  - Make sure you select about 5 potential projects
- S1/3: Allocation of projects begins
  - Algorithm for determining "stable marriages" of students and supervisors
- S1/5: Work begins
  Plan is the first formative – due in S1/6

Knowledge Graphs are good for reasoning and concepts and coherence and LLMs are good for language but people mix them up, distinction between language and reasoning/cognition.
When GPT is trained only on strings then KG are needed, when it is trained only with text we get the illusion of intelligence.
Feedback loop -- LLM input -->KG-->LLM output, KG are the semantic layer.
Missing documentation on what kind of concepts LLMs are good at extracting.
Vector databases and KG coming together? Is one better than the other? - What are we putting into it?
Strings used in similar contexts --- like doctors and nurses etc.
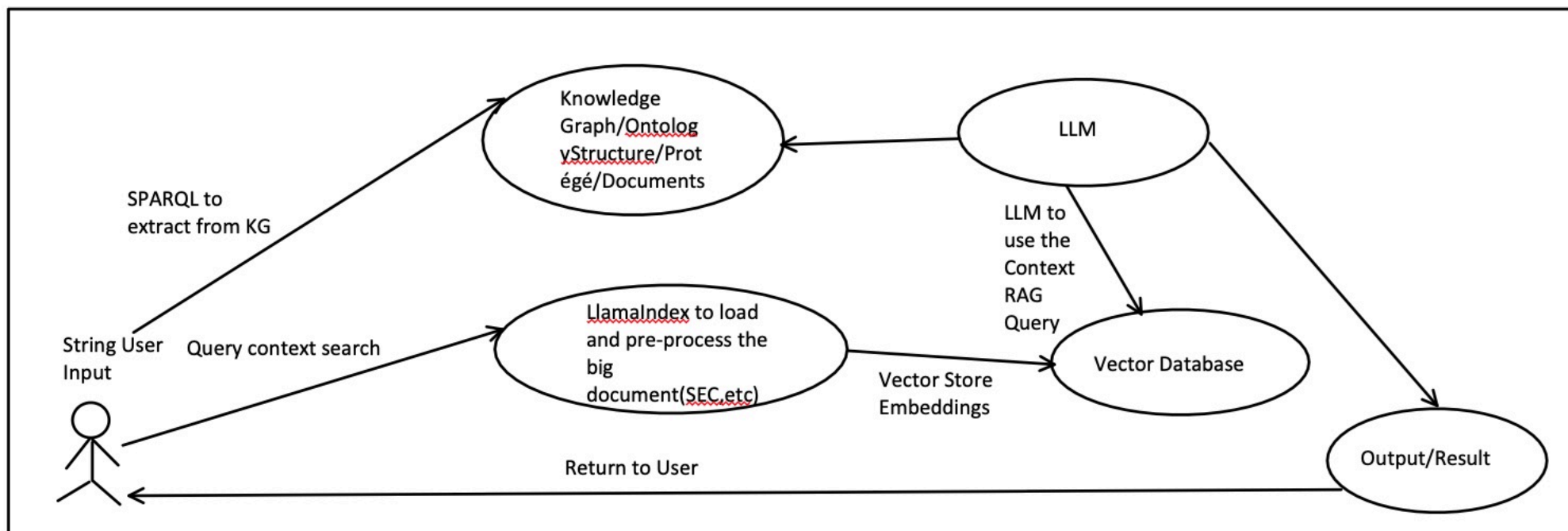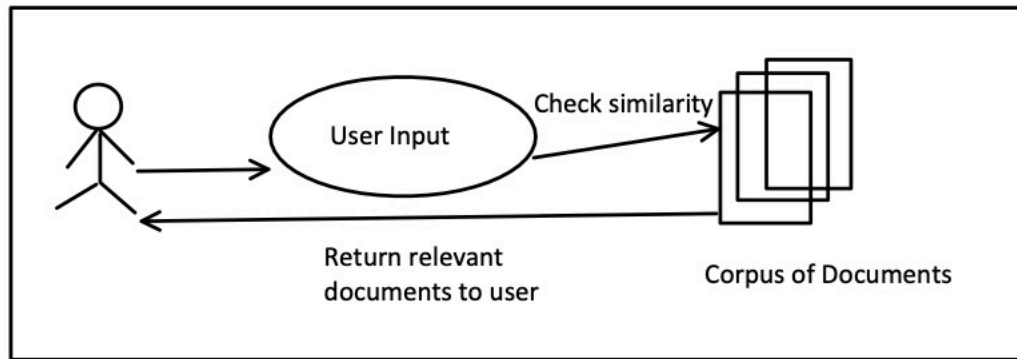Inherent limitation when we rely only on strings.
Unstructured - text is very widespread now.
What is the relationship between the KG and the Vector Database(it is essentially a reindexing of the info from the KG that make it easy to process, digest), same source of knowledge but different format.
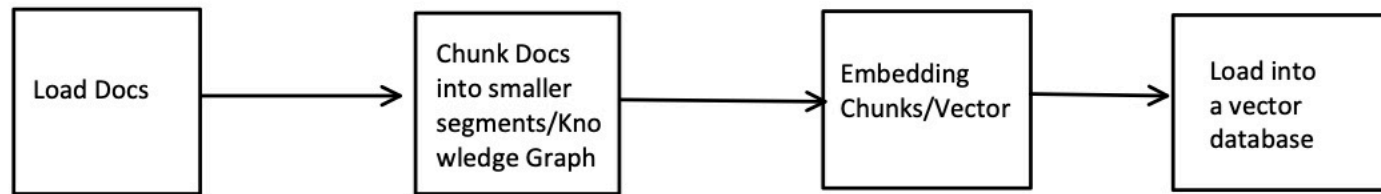RAG - you look for the answer of the question and you add it to the question before you ask it.
You put in the query and in the background you have software that goes to a database/documents/KG and pulls out the stuff that seems most relevant for that query, and then gets put into as part of the prompt that gets sent to the LLM, so we are enriching the prompt. Like a context field we can add to a prompt.

Making the financial decision process more informed, efficient.
Investment analysis with RAG for real-time market data and news for fast informed decisions
Building a RAG System that researches and contextualises before providing the answer as well as providing sources
This system can even leverage data that the LLM has not been trained on.

1. Chunking the documents makes sure only relevant information is passed to the prompt. Or perhaps using a Knowledge Graph.
2. Translating the text into a vector representation, that vector represents the meaning of that text
3. Load into a vector database over which we can do the text embedding based search