CS 410/510: LLM Agents

Assignment 1

The goal in this assignment is to build a simple RAG and demonstrate it via an interactive UI. Use DSPy to build the RAG, though you might need to load modules from other frameworks (e.g., for embedding, retrieval). You need to demonstrate the system working on three different datasets:

1. ragqa_arena_tech_corpus.jsonl as shown in thr DSPy tutorial and lecture slide
2. rag-mini-bioasq from https://huggingface.co/rag-datasets (bottom of page)
3. pdf files Metformin, Lipitor, Zestril, Dupixent

For the first dataset, you can simply reuse the code from the tutorial. For the other two, however, you should use some different modules for the database or the embedder or the indexing mechanism. Basically, I want you to do some googling.

The assignments will be demo'ed in class so they should run. Also, in class, do a code walk-through. There should also be an interface that allows the user to ask questions.