

Report of Question-Answering system that operates on Sheets

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Main approach-

Our approach is based on type of questions possibilities in this question answering system that operates on Sheets.

Questions: Numerical look questions, analytical questions, Conversational questions

- To make this system conversational with some memory we have created Agent of type conversational style.

-Then based on question, this agent will reason and act to figure out question is of-

1. **Lookup type question:** We have used RetrievalQA system to answer directly from unstructured xlsx sheet, loaded for the retriever part

2. **Analytical questions:** To avoid hallucination we have explicitly extracted out tables. Then we are using computing agent like create_pandas_dataframe_agent, which is using PythonAstREPLTool for computations involving python dataframe

Some of the Questions and Answers

Ques: "What is sum of Series A preferred shares owned by investors?" -> **computation**

Ans: The sum of Series A preferred shares owned by investors is 840,000.

Ques: "What is value of Post-Money Valuation?" -> **Lookup**

Ans: The value of the Post-Money Valuation is \$4,425,000.

Scope of improvement-

1. We can try more powerful model in our workflow, like GPT-4
2. We can also make more specific customized prompts
3. We can explicitly add one more layer to check again for hallucination case