

Assignment 2 – Comparative Financial QA System: RAG vs Fine-Tuning

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Company: Reliance Industries Limited (FY2022-23, FY2023-24)

All models & libs are open-source; no proprietary APIs used.

Screenshots (placeholders):

[1] Insert screenshot here – run app.py and capture query, answer, confidence, method, time.

[2] Insert screenshot here – run app.py and capture query, answer, confidence, method, time.

[3] Insert screenshot here – run app.py and capture query, answer, confidence, method, time.

Summary Comparison Table (example):

Revenue in FY2023-24? | RAG | ■10,00,122 crore | 0.92 | 0.6 | Y

Revenue in FY2023-24? | Fine-Tune | ■10,00,122 crore | 0.90 | 0.3 | Y

Capital of France? | RAG | Data not in scope | 0.35 | 0.5 | Y

Capital of France? | Fine-Tune | Not applicable | 0.80 | 0.3 | Y

Hosted App Link: (Optional) Host on Hugging Face Spaces or Streamlit Community Cloud.

Instructions are in the notebook and README; replace this line with your live URL.

Notes:

- To reproduce, install deps and run the notebook cells. Use a GPU for fine-tuning.
- Cross-encoder re-ranking: set `rerank=True` in the app.
- Guardrails implemented on input (scope/unsafe) and output (number cross-check).
- Data sources: RIL IAR FY23 & FY24 (see dataset `source` column).