**🧠 Team Roles Suggestion (flexible)**

* **Wenwen:** Focus on **Multimodal RAG + Web Agent + Coordination**
* **Hanna:** Focus on **Data Science Agent + QA Agent + Gradio UI**

**🗓️ 10-Day Project Plan: Two-Person Team**

| **Day** | **Wenwen Tasks** | **Hanna Tasks** |
| --- | --- | --- |
| **Day 1** | ✅ Organize all PDFs into folders per company ✅ Set up repo structure | ✅ Extract financial tables from PDFs (use pdfplumber, camelot, or PyMuPDF) |
| **Day 2** | ✅ Implement basic RAG: load, chunk, embed PDFs using LangChain + Chroma | ✅ Clean structured data, unify column formats, prepare CSVs for time-series |
| **Day 3** | ✅ Build retrieval + basic query answer system with citations | ✅ Create time-series plots for 1 company using Matplotlib/Plotly |
| **Day 4** | ✅ Add image/chart-aware multimodal support (CLIP or Donut) | ✅ Add forecasting model: Prophet or ARIMA for one company |
| **Day 5** | ✅ Test and refine multimodal answers with citations | ✅ Create Data Science Agent: forecast + explain output (LangChain tool) |
| **Day 6** | ✅ Implement Web Agent using NewsAPI or Tavily ✅ Fetch & summarize news | ✅ Combine plots + forecast + explanation into one coherent response |
| **Day 7** | ✅ Build Coordinator Agent: delegate subtasks, collect responses | ✅ Create QA Agent (optional): verify citation existence + hallucination checks |
| **Day 8** | ✅ Integrate all agents in LangChain (Coordinator pipeline) | ✅ Design Gradio interface: file upload, input box, results area |
| **Day 9** | ✅ Test system end-to-end on real queries ✅ Final debug | ✅ Connect Gradio UI to backend ✅ Push to Hugging Face Spaces |
| **Day 10** | ✅ Prepare demo script + record presentation ✅ Polish GitHub README | ✅ Final QA pass, create report (architecture, tools, reflections) |

**✅ Deliverables Checklist (by Day 10)**

* Gradio UI working on Hugging Face Spaces
* Modular, well-commented GitHub repo with agents
* At least 1 complete example for each company
* RAG with citations (text, tables, charts)
* Forecasting visualizations with explanation
* Real-time sentiment integration
* Presentation/demo ready
* Technical report

**💡 Tools/Packages to Install Early**

* langchain, openai, faiss-cpu, chromadb
* pdfplumber, PyMuPDF, camelot
* yfinance, prophet, plotly
* gradio, matplotlib, sentence-transformers
* tavily-python, newspaper3k (for Web Agent)