

Story	Task	Estimate min (hr)	Estimate max (hr)	Actual	Comment
Planning	Challenge analysis	1	1.75		Read the PDF, understand datasets, API, objectives, and deliverables.
	Task division and initial estimation	1.5	2.5		Create work plan, load tasks and estimated times into CSV.
Environment Setup	Set up virtual environment and dependencies	1	1.75		Create env, install pandas, LLMs, RAG libs, etc.
	Load and explore Product Dataset	1.5	2.5		Read CSV, show stats, identify useful fields.
	Study and integrate mock API	1.5	2.5		Check available functions, test basic call.
Implementation	Implement RAG for products	3.5	7.25		Index data, vectorize, search, generate response.
	Connect API for orders by Customer ID	2	3.5		Extract and display formatted info.
	Unify chatbot logic	2	3.5		Receive text → decide source (product/API) → respond.
Testing & Docs	Generate 10 product Q&A	1	2		Varied questions, responses generated by chatbot.
	Generate 10 order Q&A	1	2		Use mock API to respond as chatbot.
	Write README	1	2		How to run the project, architecture, trade-offs, etc.
	Complete "Actual Time" column in CSV	0.5	0.75		Measure and compare with estimate.
Bonus (Optional)	Create interface (Streamlit, Gradio, or HTML)	2	3.5		Minimal UI to test chatbot.
	Upload to the cloud (Streamlit Cloud, HF Spaces)	1.5	2.75		Host the chatbot.
	Compare models (GPT, Mistral, etc.)	2	3.5		Evaluate precision, cost, latency.
Total Time		23	41.75	0	