

POC Document: AI Workspace Assistant

1. Project Title

AI Workspace Assistant

A Unified Smart Assistant for Document Intelligence, Task Planning, and Knowledge Search








2. Objective

To build a powerful, LLM-driven assistant that allows users to:

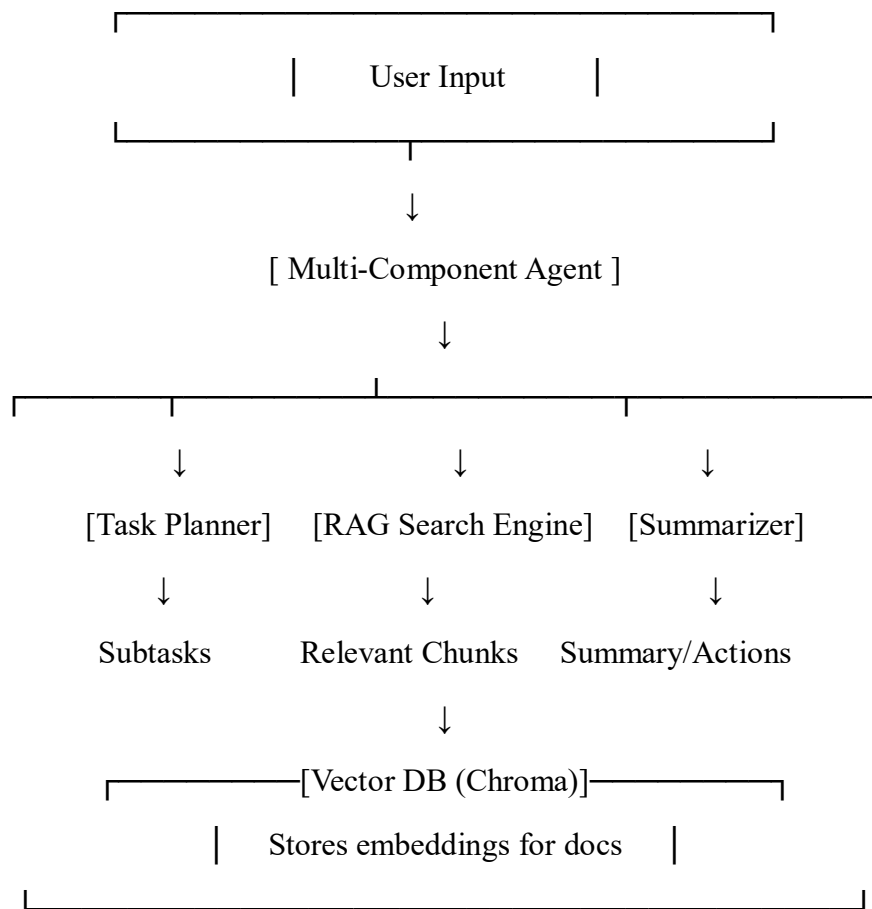
- Upload internal documents and query them in natural language
- Extract summaries, action items, and FAQ-style answers
- Plan high-level goals into actionable tasks
- Retain memory of past interactions to improve over time

This assistant leverages **Multi-Component Pipelines (MCP)**, **RAG**, **Agents**, and **Vector Memory** for a deeply intelligent and extensible AI tool.

3. Key Features

Feature	Description
 Multi-File Upload	Upload PDFs, CSVs, plain text, or URLs
 Natural Language Q&A	Ask questions, get cited answers from uploaded content
 Summarization & Action Items	Extract summaries and decisions from meeting notes/docs
 Goal Planner	Input high-level goals → generate subtasks using agents
 Smart File Routing Agent	LLM decides how to handle PDFs vs CSVs vs links
 Memory	Store past conversations and preferences in vector memory
 Feedback Logging	Track and improve responses via user feedback

4. 🏠 Architecture Overview



5. ⚙️ Technology Stack

Layer	Tools
□ LLMs	OpenAI (GPT-4) or Gemini Pro
🌀 Orchestration	LangChain (Agents, Chains, Memory)
□ Backend	FastAPI
📄 Vector Store	ChromaDB
📂 Loaders	LangChain Document Loaders (PDF, CSV, Web, TXT)

6. 🔑 Endpoints (API-first MVP)

Endpoint	Method	Description
/upload	POST	Upload and embed files
/query	POST	Ask a question, get a contextual answer
/plan	POST	Submit a goal, get subtasks
/feedback	POST	Save user feedback for training
/memory	GET/POST	Access/update user memory

7. 🛠️ Implementation Phases

Phase	Features
Phase 1	File Upload, RAG Search, Basic Q&A
Phase 2	Summarization, Action Item Extraction
Phase 3	Goal Planner Agent (Task Breakdown)
Phase 4	Smart File Type Router (PDF, CSV, etc.)
Phase 5	Feedback Logger + Memory Store

8. 🗨️ Use Cases

- Internal knowledge retrieval from policies, product docs
 - Meeting minutes summarization with follow-up tasks
 - Legal document clause Q&A
 - Business goal planning with task breakdown
 - CSV reports auto-analysis and question answering
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9. 🧠 Value Proposition

Stakeholder	Value
☑ Managers	Task breakdown from goals
📁 HR	Query policies/contracts
📄 Legal	Contract clause search
📊 Analysts	Query CSV-based dashboards
👤 Dev teams	Use as internal AI doc tool or API for other apps

10. ✅ Future Scope

- Fine-tuned models for legal/HR/marketing domains
 - Web UI with conversational memory
 - Multi-user authentication and history
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11. 📁 Deliverables

- Full FastAPI backend
- LangChain-powered intelligent chains/agents
- Sample uploaded docs and question-answer demos
- Final presentation + walkthrough demo