### **Header: Project Summary**

**🔹 Project Name:** InsightMate – AI Assistant for Internal Analytics Reports  
 **🔹 Built By:** Paul Wolfe – Full Stack AI Engineer  
 **🔹 Purpose:** Automate insights, save executive time, and centralize access to scattered internal reports.

### **Problem Statement**

Internal teams are buried in reports. Sales, HR, and compliance managers must read dozens of PDF/CSV files weekly just to prepare updates. It’s inefficient, repetitive, and distracts from strategy.

### **Solution Overview**

🧠 **InsightMate** ingests your documents (PDF, CSV, SharePoint), runs secure AI summarization and retrieval pipelines, and delivers answers instantly via **Slack** or a **web dashboard** — all backed by traceable links to the original source.

### **Architecture Overview**

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| User Input | ---> | FastAPI Layer | ---> | LangChain RAG | ---> | Vector DB |

| (Slack/Web) | | (REST API) | | (QA + Summary)| | (pgvector) |

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| | Source Docs |

| | (PDF, CSV, API)|

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### **Core Capabilities**

✅ **Ask questions in plain English** like “What did we achieve in Q3?”  
 ✅ **Get contextual answers** grounded in internal documents  
 ✅ **Traceable sources** – direct links to PDF/CSV sections  
 ✅ **Integrate with Slack** or internal dashboard  
 ✅ **Deploy securely** in AWS with Terraform + Docker

### **Tech Stack**

* **LLM & Orchestration:** LLaMA 3 / Mistral, LangChain
* **Embedding & Retrieval:** Hugging Face, pgvector, Pinecone
* **Backend & Infra:** FastAPI, Docker, Terraform, AWS (ECS, Lambda)
* **Frontend:** Next.js + Tailwind CSS
* **Integrations:** Slack API, SharePoint API
* **Evaluation & Logs:** LangSmith, Traceloop, RAGAS

### **Success Metrics**

| **Metric** | **Target** |
| --- | --- |
| ⏱️ Response Time | < 3 seconds |
| 📄 File Types Supported | PDF, CSV, SharePoint, XLSX |
| ✅ Slack/Web Usage | Fully functional UI & Slack command |
| 🔐 Security | PII-aware, internal-only, self-hosted ready |