Client Project Documentation: LLM-based RAG Application for Knowledge Transfer

Client Name: Acme Corp

Domain: Technology and Services

Association Since: January 2022

Current Status: Active Development

Overview:

Acme Corp has partnered with our organization to develop an intelligent Knowledge Transfer (KT) assistant powered by a Retrieval-Augmented Generation (RAG) architecture. The goal is to streamline onboarding and cross-team collaboration by providing contextual answers to project-related queries using a combination of document retrieval and LLM-based summarization.

Project Scope:

The KT assistant is designed to ingest internal documentation, project metadata, and team knowledge repositories to enable seamless access to information. It supports natural language queries and returns concise, accurate responses tailored to the user's context.

Team Structure and Collaboration

Team Size: Approximately 40 people

Roles and Responsibilities:

- Project Manager: Oversees delivery timelines and client communication

- NLP Engineers: Develop and fine-tune LLM models for contextual understanding

- Backend Developers: Build APIs and integrate retrieval mechanisms

- Frontend Developers: Design user-friendly interfaces for KT assistant

- Data Engineers: Manage ingestion pipelines and document indexing

- QA Analysts: Ensure system reliability and performance

Collaboration Tools:

- Jira for task tracking

- Confluence for documentation

- Slack for team communication

- GitHub for version control

The team follows Agile methodology with bi-weekly sprints and regular demos to the client.

Technology Stack and KT Relevance

LLM Frameworks:

- OpenAI GPT-4

- LangChain for orchestration

Retrieval Layer:

- FAISS for vector similarity search

- Elasticsearch for metadata filtering

Infrastructure:

- Python and FastAPI for backend services

- React.js for frontend interface

- Azure for cloud hosting and storage

- PostgreSQL for metadata storage

Knowledge Transfer Relevance:

The RAG-based KT assistant reduces onboarding time by 60 percent, improves documentation accessibility, and enables new team members to quickly understand project architecture, workflows, and client expectations. It serves as a reusable asset across multiple client engagements and is being considered for enterprise-wide deployment.

Project History and Service Lines

Headquarters: Acme Corp is headquartered in San Francisco, California, with global offices in Europe and Asia.

Project History:

The KT assistant initiative began as a pilot in Q1 2022, focusing on internal documentation search. Following successful trials, the project expanded to include client-specific knowledge bases and integration with enterprise tools.

Service Lines Involved:

- Digital Engineering

- AI and Data Analytics

- Cloud Infrastructure Services

- Enterprise Application Services

The project is a cross-functional effort involving multiple service lines to ensure scalability and alignment with enterprise goals.

Future Enhancements and Roadmap

Planned Enhancements:

- Multilingual support for global teams

- Integration with SharePoint and email systems

- Role-based access control for sensitive documents

- Real-time feedback loop for continuous improvement

Roadmap:

- Q3 2024: Beta release with multilingual capabilities

- Q4 2024: Enterprise-wide rollout across Acme Corp divisions

- Q1 2025: Integration with external client portals

Conclusion:

The LLM-based RAG application for Knowledge Transfer is a strategic initiative that enhances productivity, reduces onboarding friction, and fosters a culture of knowledge sharing. It is poised to become a cornerstone of Acme Corp's digital transformation journey.