Project Design Phase-I
Solution Architecture

Date	20 November 2023
Team ID	SPSGP-614965
Project Name	Project - Extracting Intelligent Insights With AI-Based Systems
Maximum Marks	4 Marks

Solution Architecture:

Finding the Best Tech Solution:

- Analyze existing text summarization techniques in NLP.
- Assess available NLP libraries, machine learning models, and semantic analysis tools.
- Explore methods for real-time processing and semantic understanding for accurate summarization.

Describing Structure and Characteristics:

- Outline the system's architecture, including summarization engine, semantic analysis modules, and machine learning components.
- Define interfaces for user interaction, API integrations, and data storage structures.
- Specify system behaviors for document processing, summarization, customization, and feedback incorporation.

Defining Features and Development Phases:

- Identify key features like user-customized summaries, real-time summarization, and semantic analysis.
- Develop a roadmap with phases for data collection, model training, UI development, testing, and deployment.
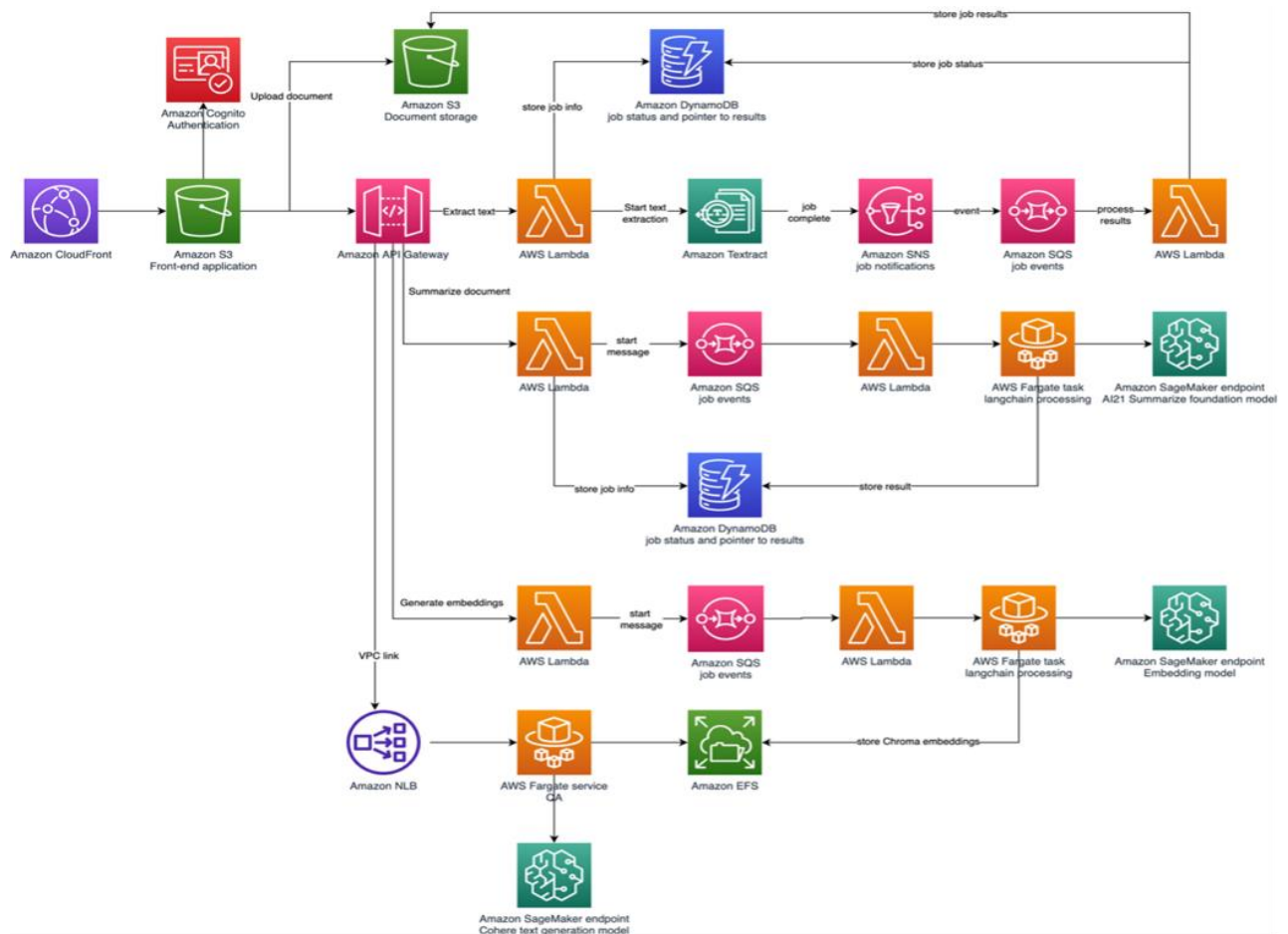
Providing Solution Requirements and Specifications:

- Define hardware requirements, such as computational resources for AI processing.
- Specify software requirements, including NLP libraries, databases for storage, and API integrations.
- Establish security protocols for data encryption, user authentication, and access controls.

Managing Solution Definition and Delivery:

- Collaborate with stakeholders to validate requirements and ensure alignment with business needs.
- Oversee development phases, ensuring adherence to specifications, quality assurance, and testing.
- Monitor project progress, manage risks, and facilitate communication between development teams and stakeholders.

Solution Architecture Diagram:

Reference: https://aws.amazon.com/blogs/machine-learning/use-a-generative-ai-foundation-model-for-summarization-and-question-answering-using-your-own-data/