Document Q&A system

1. Overview

Design and implement an AI-based intelligent document Q&A system that supports users uploading documents in multiple formats and obtaining accurate answers through natural language queries.

2. Functional Requirements

Document Management:

- Supports uploading documents in TXT and Markdown formats, parses and stores the documents
- Supports operations such as querying and deleting documents

Q&A function

- Generate accurate and coherent answers in response to user questions
- Supports multi-turn conversations and maintains context coherence

System Management

- Supports configuring different AI service providers (OpenAI, Claude, local models, etc.)
- Record user queries and system responses to facilitate analysis and optimization

3. Non-functional Requirements

- Uses Python and has a complete set of unit tests
- Needs to be able to build a docker image and actually run it
- Any AI API (OpenAI, Claude, local models, etc.) can be used
- Provide complete documentation (architecture design, user documentation, interface documentation, etc.)

4. Bonus Items

- Supports multiple document formats (PDF, Word, etc.)
- Provide Web UI

5. Precautions

- Within **three days after the assignment is issued**, complete it and **provide the GitHub repository.**