

Requirement Analysis Phase Report

Report Period : July 22, 2024 to July 29, 2024

Project Title: AIKO (AI-powered Knowledge Organizer)

Project Manager: Dr. P. B. Jawade

In-house Guide: Dr. D. J. Chaudhari

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Executive Summary: The AIKO project team has successfully completed the Requirement Analysis phase. A SRS document has been prepared and approved by our Project Guide. The core objectives, key features and target audience have been identified and mentioned in the attached SRS document. The development approach has been finalized, opting for Waterfall model to guide our project execution.

Current Task Progress:

Task Description	Requirement Analysis
Scheduled Completion	August 5, 2024
Actual Completion	July 31, 2024
Status	Completed
Remarks	

Accomplishments:

- Created and approved AIKO's System Requirement Specification.
- Highlighted the target audience, Key objectives and features of AIKO.

- Defined core components including data integration, advanced search functionality, security implementation, automated synchronization, and user experience design.
- Identified key technologies to be used, including NLP libraries, machine learning frameworks, and frontend development tools.

Challenges & Mitigations:

- Defining scope for AI/ML components given rapidly evolving field.
 - Conducted thorough literature review and consulted with faculty experts to ensure our approach aligns with current best practices.
- Balancing advanced features with user-friendly design.
 - Prioritized core functionalities and created a phased implementation plan to gradually introduce more complex features.
- Addressing potential privacy concerns with AI-driven knowledge management.
 - Incorporated robust security and privacy considerations into our requirements, including encryption and user control over data sharing.

Planned Activities for Next Phase:

- Begin detailed system design based on approved requirements
- Create initial logical database schema and logical API specifications
- Develop prototypes and mockups for key UI components and views
- Set up development environment and version control systems

Financial Summary:

Description	Budgeted Amount	Amount Spent This Week	Total Expenditure
Requirement Analysis	₹ 0/-	₹ 0/-	₹ 0/-

Risk Assessment:

The primary risks identified during this phase include potential challenges in integrating diverse data sources, ensuring scalability for large knowledge bases, and maintaining high performance for complex search queries. We have factored these risks into our requirements and will continue to monitor and address them throughout the development process. Additionally, we recognize the need to stay current with rapidly evolving AI technologies, which may require periodic reassessment of our technical approach.

Conclusions & Recommendations:

The Requirement Analysis phase has laid a strong foundation for the AIKO project. We have clearly defined our objectives and key features, which align well with the identified needs in knowledge management and information retrieval. Our guide recommends proceeding to the Design phase, with a focus on creating a flexible architecture that can accommodate future enhancements. Our guide also suggests scheduling regular check-ins with potential end-users to ensure our design decisions continue to meet real-world needs.

Approval:

Dr. D. J. Chaudhari

Project Guide

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Date: July 29, 2024