

Development Phase Report

Report Period : August 12, 2024 to August 21, 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: AIKO’s development phase has begun and progress has been made in setting up the development environment, provisioning cloud resources, and training machine learning models. The team has successfully integrated ML models with backend services and is working on refining frontend-backend linkages. The project is on track to meet its development milestones and deliver a functional prototype by the end of the implementation phase.

Current Task Progress:

Task Description	Implementation Phase
Scheduled Completion	October 7, 2024
Actual Completion	-N/A-
Status	In-Progress
Remarks	

Accomplishments:

- Completed setup of development environment and version control systems
- Provisioned cloud resources and virtual machines for ML model training

- Integrated ML models with backend services
- Developed linkages between frontend and backend services
- Began development of key UI components
- Conducted initial testing of ML models and backend services

Challenges & Mitigations:

- User Experience is hampered by slow response times
 - Implementation of websockets for real-time updates, and optimization of backend services
- Ensuring data privacy and security
 - Implementation of encryption and access control mechanisms
- Scalability for large knowledge bases
 - Utilization of distributed computing and caching strategies

Planned Activities for Next Phase:

- Continue development of key UI components
- Explore integration of additional ML models
- Optimize backend services for improved performance
- Expand indexable formats

Financial Summary:

Description	Budgeted Amount	Amount Spent This Phase	Total Expenditure
Hosting	₹1,300	₹536	₹536
Machine Learning	₹21,000	₹10,000	₹10,000

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:

Development Phase for AIKO is ongoing, with the successful setup of development environment and integration of ML models with backend services. The team is working on refining frontend-backend linkages and optimizing backend services for improved performance. The project is on track to meet its development milestones and deliver a functional prototype by the end of the implementation phase. Project Guide recommends the team to focus on building a marketable product with a strong emphasis on user experience and performance.

Approval:

Dr. D. J. Chaudhari

Project Guide

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