

# Mike-Web App

## Project Overview

Our proposal is for the development of an AI-backed web application that leverages a vector database, Large Language Model (LLM), and Role-Based Access Control (RBAC) to provide a secure and efficient platform for searching and retrieving product-related data.

## Key Features

1. **Vector Database:** A robust vector database will be designed to ingest and store a large amount of company data, including spec sheets, test results, and other product collateral.
2. **LLM-powered Search:** An LLM will be integrated with the vector database to enable RAG (Retrieve, Augment, Generate) search capabilities, allowing users to query the database using natural language and receive relevant results.
3. **Front-end Web UI:** A user-friendly web interface will be developed to facilitate user interaction with the application, enabling users to browse through the document catalog and find items of interest.
4. **Visual Element:** The web UI will include a visual component that allows users to explore the document catalog and access relevant documents.
5. **Role-Based Access Control (RBAC):** A robust RBAC system will be implemented to restrict data access to authorized users based on their roles, ensuring that sensitive information is protected.

## Technical Approach

To develop this application, we will employ a team of experts with diverse skill sets, including:

1. **Data Engineers:** Responsible for designing and implementing the vector database and integrating it with the LLM.
2. **AI/ML Engineers:** Will develop and fine-tune the LLM model for RAG search capabilities.
3. **Front-end Developers:** Will design and develop the web UI, ensuring a seamless user experience.
4. **Back-end Developers:** Will implement the RBAC system and integrate it with the front-end UI.

## Project Timeline

We estimate that the development of this application will take approximately 8-10 weeks, depending on the complexity of the requirements and the availability of data for ingestion.

## **Development Timeline (Estimated: 8–10 weeks)**

Week 1–2: Requirements Gathering, Planning, and UI/UX Design

Week 3–4: Data Collection, Ingestion, Cleaning, and Vector Database Configuration

Week 5–6: LLM Integration with RAG Framework, Backend API Development

Week 7–8: Front-end Development and UI Integration

Week 9: Implementation of RBAC Security Layer, System Integration, Internal Testing

Week 10: Final QA Testing, User Acceptance Testing (UAT), Deployment Preparation

## **Deliverables**

Upon completion of the project, we will deliver:

1. A fully functional AI-backed web application with a vector database, LLM-powered search, and RBAC system.
2. Deployment support to ensure smooth transition to production.
3. The final web application will be hosted on clients hosting system.

## **Ongoing Support**

To ensure that your application continues to run smoothly and efficiently, we offer ongoing support and maintenance services. Our team will provide regular updates, bug fixes, and technical support as needed. This service includes monitoring of application performance, troubleshooting of issues, and implementation of minor enhancements.

## **Costing**

Based on our estimated timeline and hourly rate, we anticipate the total development cost to be \$10,000 (assuming 1600-2000 hours of development time).

The cost for ongoing support and maintenance is \$300 per month.

## **Conclusion**

Our team is excited about the opportunity to develop an innovative AI-backed web application that meets your business needs. We believe that our technical approach, combined with our expertise in AI/ML, data engineering, and software development, makes us well-suited to deliver this project successfully.

Please let us know if you would like us to elaborate on any aspect of this proposal or if you have any questions regarding our approach.