



AI Knowledgebase Management System for Manufacturing Organizations

Problem Statement

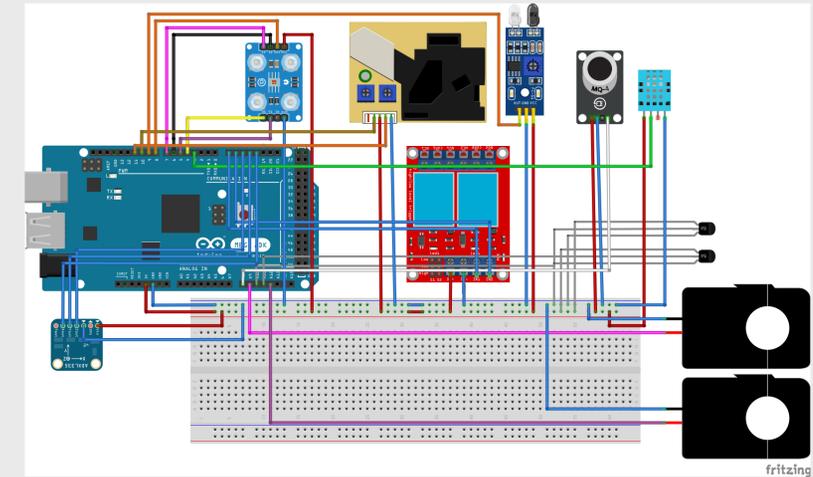
Organizations face critical delays in decision-making due to inefficient data access and poor documentation. Our Knowledge Management System streamlines data retrieval and analysis, enhancing productivity and decision-making

Prototype Design

Software subsystem: A subsystem that analyzes and retrieves the specific files requested by the user to provide deep and meaningful insights

Hardware subsystem: A subsystem collects data from the production line, stores valuable data points, and then sends them to the organization's database

Diagrams



Constraints

- Product Dimensions and Compatibility: The product has to be within certain dimensions
- Data Privacy and Security: Must adhere to standard IT security guidelines
- Cost Limitations: The project budget is fixed, restricting the amount that can be spent on development resources
- Technical Expertise: The system must be operable by individuals with varying levels of technical skill within the manufacturing environment

Target Specifications

- Retrieval Time: Under 30 seconds
- Storage capacity for up to 1 TB of data
- System Uptime: 95%
- integration with common file formats (e.g., .xlsx, .csv)
- Query Load Capacity: 100 queries per hour

Validation

We have tested the maximum capabilities of the system and found that it achieved:

- Retrieval time of less than 20 seconds
- Storage capacity exceeding 1 TB
- Maximum of 150 queries at a time
- Integration with common file formats like CSV and XLSX

Project Impact

The project would have a huge impact on incentivizing more companies and organizations to embrace digitization within their processes, as it would help them maximize the benefits of adopting digital approaches.

Conclusions

We have successfully developed a system that will help organizations unlock the full potential of their databases and elevate their decision-making processes to new levels

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