SMART INDIA HACKATHON 2024

Main Hackathon

Problem Statement ID – 1706

Problem Statement Title - Intelligent Enterprise Assistant: Enhancing Organizational Efficiency through AI-driven Chatbot Integration

Theme - Miscellaneous

PS Category - Software

Team ID - # 261 (as in excel sheet)

Team Name - DheetCoderz

DheetCoderz

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“ Intelligent Enterprise Assistant: Enhancing Organizational Efficiency through AI-driven Chatbot Integration”

❖ Proposed Solution

- **Hugging Face Transformers** for natural language understanding and processing. For chatbot implementation, **Rasa.**
- **Navana Tech's Bodhi API** for handling voice queries
- **SpaCy** and **PyMuPDF** for extracting and summarizing text from documents
- Pre-trained transformers like **BART** or **PEGASUS** for document summarization
- **TF-IDF** or **YAKE** for keyword extraction from documents.

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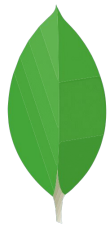
TECH-STACK USED

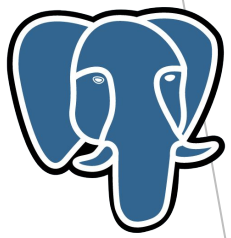

PYTHON


FLASK


GRAFANA


MONGO-DB


PANDAS


POSTGRE-SQL

LIBRARIES

NLTK SPACY NAVANA RegEx NVIDIA CUDA

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FEASIBILITY AND VIABILITY

Feasibility:

- **Technical Feasibility :** Hugging Face Transformers, Django/Flask, and Navana Tech Bodhi API, are readily available as open-source or commercial products

- **Time Feasibility: :** The primary components—chatbot development, document processing, and security—can be developed in parallel to optimize time.

Viability:

- **Market Demand :** Organizations increasingly rely on AI-driven solutions to enhance efficiency.

- **Return on Investment :** Chatbot could automate routine tasks, reduce human error, and improve response times, leading to cost savings in HR, IT support, and general administration.

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FLOWCHART

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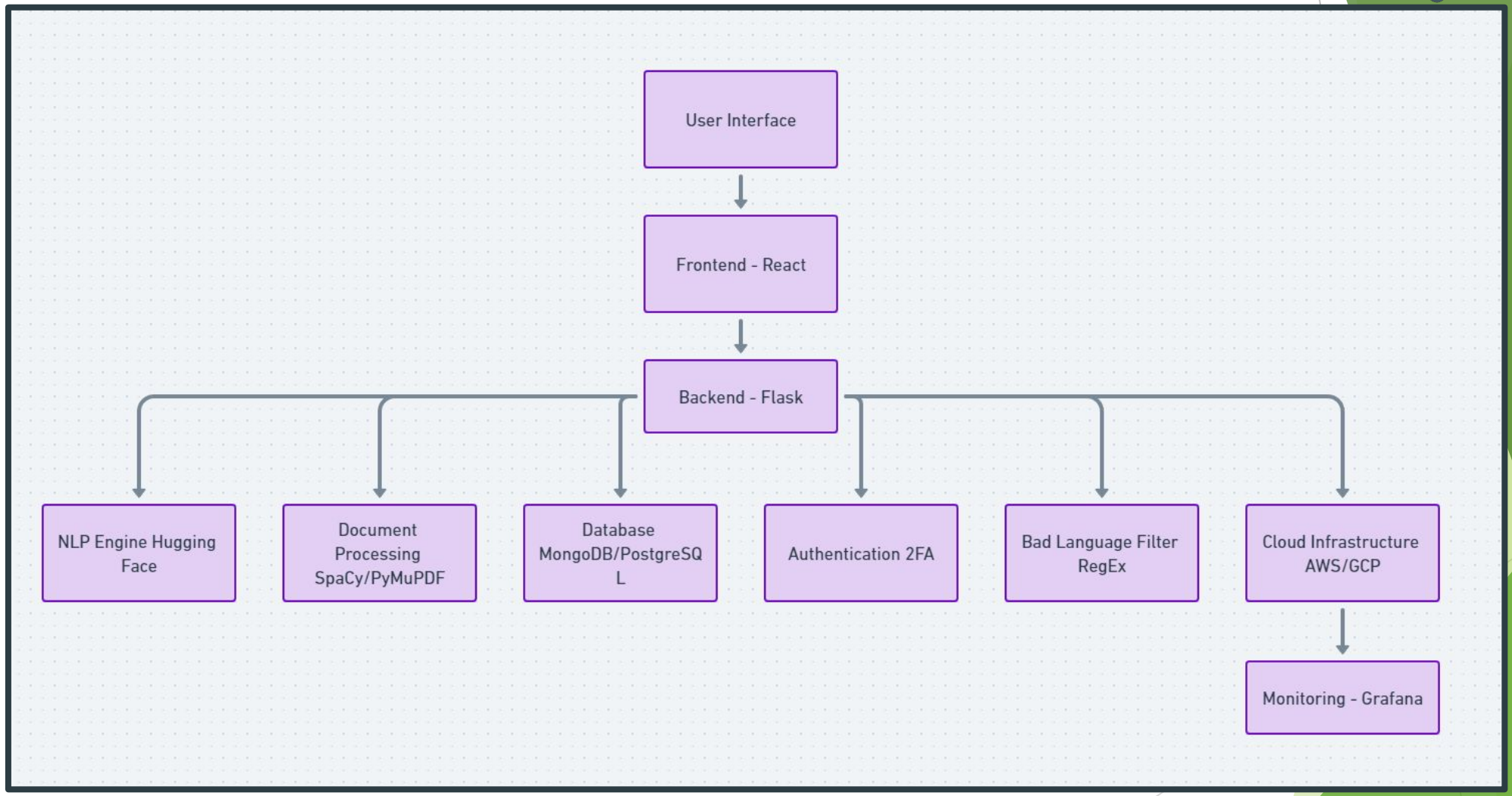

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