PITCH DECK.

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THE PROBLEM

The challenge is to build a system that automatically converts unstructured financial documents (like SOPs or manuals) into BPMN-style process maps. Currently, creating these maps is manual, slow, and error-prone. Your solution must extract distinct processes, identify related risks and controls, and output both a visual BPMN diagram and a structured JSON file, improving efficiency, accuracy, and compliance in financial workflow documentation.

OUR INSIGHT

- **Core Challenge:** The manual creation of process maps from financial SOPs is slow and prone to errors. Automating it saves time, reduces risk, and improves compliance.

- **Expected Output:** A system that accepts varied document types (PDF, Word, Excel), extracts processes, identifies risks/controls, and delivers both a BPMN-style visual map and a structured JSON file.

- **Value Proposition:** Offers significant productivity gains and cost savings for financial institutions while ensuring consistency and regulatory compliance.

- **Technical Focus:** Requires strong NLP for text extraction, process identification, and mapping to BPMN standards, plus a user-friendly interface for uploads and downloads.

CONFLUENTIA

OUR SOLUTION

- **AI-Driven Extraction:** We use the Gemini API to parse unstructured financial documents, accurately extract business processes, and identify associated risks and controls.

- **Automated BPMN Generation:** The extracted data is transformed into BPMN-compliant process maps, ensuring clear, standardized workflow visualization.

- **MERN-Based Deployment:** Built on the MERN stack (MongoDB, Express.js, React, Node.js) for a scalable backend, responsive frontend, and smooth real-time interaction.

- **Structured Output:** Generates downloadable JSON files containing all processes, risks, and controls for easy integration with enterprise systems.

- **Impact:** Significantly reduces manual effort, improves accuracy, and strengthens compliance and operational efficiency across financial workflows.

DEMO

Link:

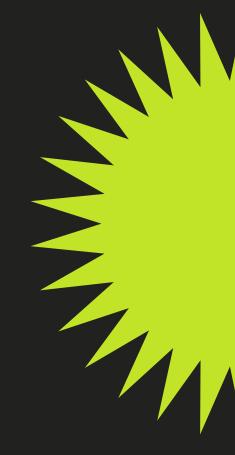**https://confluentiafrontend.onrender.com/**

SCALING

- **Hybrid Pipeline for Cost and Accuracy:** Implement a hybrid approach that uses an in-house or open-source model for routine or previously processed SOPs and reserves the Gemini API for complex or novel documents. This strategy can reduce API usage and costs while maintaining high accuracy for difficult cases.

- **Retrieval-Augmented Generation (RAG) with a Knowledge Base:** Store all previously processed SOPs, including their BPMN diagrams and risk outputs, in a vector database. This knowledge base can then be used with Retrieval-Augmented Generation (RAG) to provide the Gemini prompts with relevant past examples, which will improve accuracy and reduce redundant analysis.

- **Continuous Feedback Loop and Custom Fine-Tuning:** Create a system that captures user corrections to the generated outputs. This feedback can be used to build a labeled dataset over time, which can then be used to fine-tune an in-house model. This process will ensure the custom models and the knowledge base remain current and accurate.

- **Scalable Infrastructure:** Deploy a microservices-based architecture with auto-scaling cloud resources for high-volume, concurrent processing.

THANK YOU

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