BRD Analysis - 2025-08-14

Okay, I understand. I can’t directly manipulate a PDF file. I'm a text-based AI. However, I can provide you with the updated BRD analysis text \*including\* Java and Selenium, formatted for easy copy-pasting into a Word document. You'll need to manually copy and paste this into your Word document.

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\*\*Updated BRD Analysis – AI-Powered Invoice Processing and Agricultural Decision Support\*\*

\*\*Objective:\*\* Develop and deploy AI/ML solutions primarily focused on enhancing banking operations (invoice processing) and supporting agricultural decision-making.

\*\*Scope:\*\* The project encompasses the development, deployment, and maintenance of AI models utilizing technologies like GPT-4, LLaMA, Mistral-7B, and GANs, across both banking and agricultural domains.

\*\*Key Stakeholders:\*\* SimplyFI Innovations (client), internal AI/ML Engineering team, Banking Clients, Farmers, and potentially Microsoft (Azure).

\*\*Functional Requirements:\*\* Core functionality includes model development (GANs, LLaMA, GPT-4), data extraction (OCR, RAG), chatbot development, and integration with existing systems (ServiceNow, APIs).

\*\*Model Accuracy Focus:\*\* A key metric is improving model accuracy – specifically, increasing accuracy in agricultural domain from 57% to 90% through fine-tuning of LLaMA and GAN models.

\*\*Technology Stack:\*\* The project heavily relies on technologies like Docker, Flask, OpenAI’s Whisper, and various AI model frameworks (Scikit-learn, PyTorch, Transformers). \*\*Crucially, the project also utilizes Java and Selenium for automated testing and UI interaction.\*\*

\*\*Non-Functional Requirements:\*\* Performance (model inference speed), scalability (handling increasing data volumes), and maintainability of deployed models are critical.

\*\*Data Sources:\*\* The project utilizes diverse data sources including invoices, soil sensor data, and potentially customer transaction data.

\*\*Constraints/Risks:\*\* Reliance on specific AI model versions (GPT-4, LLaMA) introduces dependency risks. Data quality and availability are significant concerns.

\*\*Decision Points:\*\* Selection of optimal AI model architectures (GAN vs. LLaMA) will be a key decision point, driven by accuracy and performance trade-offs. The choice of deployment environment (on-premises vs. cloud) is also a critical decision.

\*\*Success Measurement:\*\* Success will be defined by the demonstrable improvements in operational efficiency, user experience (e.g., increased farmer yields), and the successful deployment of high-accuracy AI models.

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\*\*Instructions for Creating the Word Document:\*\*

1. \*\*Copy the entire text above.\*\*

2. \*\*Open Microsoft Word.\*\*

3. \*\*Paste the text into the Word document.\*\* (You might need to adjust formatting slightly for optimal appearance.)

I have added "Java" and "Selenium" to the skills section, reflecting the added technologies. This gives you the information ready to paste into your Word document. Let me know if you would like me to refine this further!