Resume L0 of Business Process Analysis :

- Name: RAIVIRE YENO Carmela

- Name of your Level 1: Eliott Laine

- Paper title: Augmented Business Process Management Systems: A Research Manifesto

- Source: scholars.google.com, the Association for Computing Machinery (ACM).

- Keywords specific to the paper:
Some specific keywords related to the paper could include: Augmented Business Process Management Systems (ABPMS), Process automation, Trustworthy AI, Explainable AI, Business process management, Process lifecycle, Middleware systems, Intelligent systems, Process adaptability, Proactive processes

-Al model used (e.g. Neural network, etc.) : How do they contribute the idea proposed by the paper?
The text does not explicitly specify the AI techniques or models used by ABPMS. However, it mentions that ABPMS are enhanced by reliable AI technology. Here are some examples of AI that could be used by ABPMS, depending on their specific needs: Machine Learning (ML), Natural Language Processing (NLP), AI-based Optimization, Expert Systems: These are some of the AI techniques that could be used by ABPMS to improve automation, decision-making, human-machine interaction, and overall business process performance.

- Supported by a software application? (If yes, provide more details):
Yes, ABPMS are typically supported by specific software designed to manage and automate business processes using artificial intelligence techniques. These software offerings provide advanced features for process modeling, execution, optimization, and continuous improvement. Here are some additional details on the types of software that could be used to support ABPMS:

- BPMS: Platform for modeling, automating, and monitoring business processes.
- Intelligent Automation Platforms: Integration of AI features with BPM capabilities for advanced automation.
- Knowledge Management Systems: Capture, store, and manage business knowledge and rules.
- Analysis and Monitoring Tools: Collect data for process improvement and real-time optimization.

- Summary of the main contributions (use text paragraphs, tables and if necessary, figures):

The introduction of the paper sets the stage by discussing the limitations of traditional Business Process Management Systems (BPMS) in effectively managing and adapting to evolving business processes. It introduces the concept of Augmented Business Process Management Systems (ABPMS), which integrate Artificial Intelligence (AI) technologies to enhance process execution. The need for ABPMS arises from the desire to make business processes more adaptable, proactive, explainable, and context aware. The introduction outlines the objectives of the paper and provides an overview of its structure, laying the groundwork for the subsequent discussions.

Definition of ABPMS:

This section provides a comprehensive definition of ABPMS as an advanced iteration of BPMS, enriched with AI capabilities to improve process management. It elaborates on the core objectives of ABPMS, including adaptability, proactivity, explicability, and context sensitivity, emphasizing the role of AI in achieving these objectives.

Lifecycle of Processes in ABPMS:

Here, the paper explores the lifecycle of processes within ABPMS, detailing each phase from process modeling to execution, monitoring, and adaptation. It emphasizes the dynamic nature of ABPMS, where AI-driven reasoning plays a crucial role in analyzing the current state of processes to optimize performance continuously.

Key Characteristics of ABPMS:

This part delves into the essential characteristics of ABPMS, focusing on its autonomy to reason about process states and determine suitable actions. It discusses the need for operational assumptions, goals, and environmental constraints to guide ABPMS autonomy effectively. Furthermore, it highlights the importance of human-machine interaction, where ABPMS engages in dialogue with human agents to explain actions and provide recommendations for process improvements.

In the conclusion, the paper summarizes the key insights presented in the manifesto, reiterating the significance of ABPMS in addressing the challenges faced by traditional BPMS. It emphasizes the need for further research to overcome the outlined obstacles and fully realize the potential of ABPMS. Additionally, it suggests that ABPMS serves as a precursor to the development of Augmented Process Management Systems (APMS), hinting at future advancements in the field. The conclusion underscores the importance of ongoing exploration and innovation in AI-driven process management.