Proposal of End of Module Assignment

Title: Artificial Intelligence in Claims Processing - Revolutionizing the Insurance Industry

The end of module assignment will explore the implementation of artificial intelligence (AI) in the claims processing of the insurance industry, with a specific emphasis on UnitedHealth which is one of the insurance companies that has embraced AI technology to streamline its claim processing operations. The assignment explores the potential benefits and risks associated with AI in claims processing and proposes solutions to mitigate these risks and challenges.

The assignment begins by providing an overview of the traditional manual processes involved in claims processing. It will highlight the limitations, inefficiencies, and potential errors that arise from the manual approach. Subsequently, the assignment will study various aspects of implementing AI in claims processing, including data collection, analysis, and decision-making. It will explore specific AI technologies and algorithms such as Machine Learning (ML) and Natural Language Processing (NLP) that are utilized in claims processing. Additionally, the assignment will discuss the impact of AI implementation in the insurance industry, with a specific focus on UnitedHealth.

Furthermore, the assignment will examine the potential benefits of integrating AI in claims processing. It will discuss how AI can enhance accuracy, expedite claim settlements, and improve fraud detection. The advantages of automating repetitive tasks, enabling data-

driven decision-making, and minimizing human error will be explored. The assignment will also highlight the positive impact of AI on customer experience, including faster claims resolution and increased satisfaction.

On the other hand, the assignment will also explore the ethical concerns associated with AI decision-making, such as fairness, bias, and transparency. It will provide an overview of the UnitedHealth case, where allegations were made regarding an AI algorithm that systematically denies extended care to the elderly (Napolitano, 2023). The assignment will discuss the reasons behind such incidents and the ethical considerations associated with them, revealing the potential risks associated with AI in claims processing.

Lastly, the assignment will present strategies to mitigate the risks and challenges associated with AI in claims processing. The assignment will also highlight the importance of striking a balance between the benefits of AI and ethical considerations, transparency, and human oversight. It will introduce Algorithmic Impact Assessment (AIA), propose the use of explainable AI models and risk mitigation strategies to address the concerns raised by the application of AI in claims processing.

Various research reports, such as the PwC 2022 AI Business Survey conducted by PricewaterhouseCoopers (PwC, 2022) and the Life Insurance AI/ML report published by the National Association of Insurance Commissioners (DeFrain, K. et al., 2023), will be used as references to support specific views in the assignment, such as AI adoption in business and user expectations.

In conclusion, this assignment will provide a comprehensive overview of the implementation of AI in claims processing, focusing on UnitedHealth. It will explore both the potential benefits and risks associated with AI in the insurance industry. The assignment will also propose solutions to mitigate these risks, highlighting the need for ethical considerations and regulatory compliance. By achieving a balance between the advantages of AI and responsible implementation, the insurance industry can revolutionize claims processing while ensuring transparency, fairness, and data privacy.

References

DeFrain, K. et al. (2023) *Life Insurance Artificial Intelligence/Machine Learning Survey Results NAIC Staff Report.* Available from:

https://content.naic.org/sites/default/files/inline-files/life-ai-survey-report-final.pdf

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Napolitano, E. (November 21, 2023) United Health sued over alleged use of AI to deny elderly patients care. *Yahoo!finance.* Available from

https://finance.yahoo.com/news/unitedhealth-sued-over-alleged-ai-212518497.html

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PwC. (2022) *PwC 2022 AI Business Survey.* Available from:

https://www.pwc.com/us/en/tech-effect/ai-analytics/ai-business-survey.html [Accessed 7 December 2023]