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Draft Submission for the final module

Introduction

This draft highlights the subject I will present and develop on the final module assignment. More importantly, this assignment will focus on Data Mining and its association with Project Management. Furthermore, by offering relevant facts from researching data mining and trends this area represents for society, this draft will introduce some topics which will be explained more in the final assignment.

Title of the project: Project Management: From Planning to Delivery with Data Mining.

Data Mining is a fast-growing field closely related to database technology. It comprises methods for identifying patterns in data collection (J. Glenn Brookshear & D. Brylow, 2020).

Amazon is a company that relies heavily on data mining to run its business, employing in a variety of ways, including Customer segmentation and profiling, Product recommendations, Inventory management, Price optimisation, detect patterns of fraudulent behaviour (Wang et al., 2010). Overall, data mining is essential for Amazon to optimise operations, increase sales, and improve the customer experience.

One of Amazon's key data concerns is similar to those faced by many other companies: The challenge of analysing varied datasets, data controllership, data security, and adding machine learning are all issues to consider (Talha et al., 2020).

Project management is designing, implementing, monitoring and controlling a project from start to finish. It involves activities to achieve specific goals and objectives within a set timeframe, budget, and scope (Zheng & Qiang, 2022).

Data mining is extracting knowledge from large data sets by identifying patterns, trends, and relationships. It employs a variety of approaches to extract insights and information from data, including statistical analysis, machine learning, and artificial intelligence (J. Glenn Brookshear & D. Brylow, 2020).

Incorporating data mining into project management can increase the process's efficiency and efficacy. Meanwhile, another investigation shows that by analysing data related to project planning, execution, monitoring, and controlling, project managers can make more informed decisions, identify potential risks and opportunities, and optimise resource allocation (Li, W., et al., 2021).

The evidence shows that Data Mining associated with Project Management can include Project Planning; Resource allocation; Task Scheduling; Risk Management; Performance Monitoring.

As one of the world's top e-commerce enterprises, Amazon collects vast customer data, including purchase history, search queries, and browsing behaviour. The company uses this data to personalise recommendations, improve search results, and optimise marketing campaigns (Kaushik, K et. Al., 2018). However, data mining also concerns privacy, security, and ethics.

In conclusion, data mining is a crucial aspect of Amazon's business. However, it raises concerns about privacy, security, bias, and ethics. To address these issues, Amazon must be transparent about its data collection practices, implement strong security measures, ensure its unbiased algorithms, and establish ethical guidelines for data

mining practices (Tursunbayeva, A. et al., 2014). By doing so, Amazon can build customer trust and ensure that its data mining practices align with customer expectations.

Hirji, K.K. (2001) states that the advantages of data mining result from operationalising data mining findings through a business strategy to accomplish a specific goal.

Incorporating data mining into project management requires specialised knowledge and skills in both areas and access to relevant data and tools to analyse and visualise it. However, the benefits of using data mining in project management can be significant, including improved efficiency, reduced costs, and better project outcomes.

References:

J Glenn Brookshear & Brylow, D. (2020). *Computer Science: an overview*. Harlow Pearson.

Wang, J., Wan, J., Liu, Z. & Wang, P. (2010). *Data Mining of Mass Storage Based on Cloud Computing*. [online] IEEE Xplore.doi:<https://doi.org/10.1109/GCC.2010.89>.

Talha, M., Sohail, M. & Hajji, H. (2020) Analysis of research on amazon AWS cloud computing seller data security, *International Journal of Research in Engineering and Innovation (IJREI)*

Zheng, J. & Qiang, M. (2022). UNDERSTANDING THE CHANGES IN CONSTRUCTION PROJECT MANAGERS' COMPETENCES THROUGH RESUME DATA MINING. *JOURNAL OF CIVIL ENGINEERING AND MANAGEMENT*, 28(4), pp.305–319. doi:<https://doi.org/10.3846/jcem.2022.16579>.

Li, W., Duan, P. & Su, J. (2021). The effectiveness of project management construction with data mining and blockchain consensus. *Journal of Ambient Intelligence and Humanized Computing*. doi:<https://doi.org/10.1007/s12652-020-02668-7>.

Kaushik, K., Mishra, R., Rana, N.P. & Dwivedi, Y.K. (2018). Exploring reviews and review sequences on e-commerce platform: A study of helpful reviews on Amazon.in. *Journal of Retailing and Consumer Services*, 45, pp.21–32. doi:<https://doi.org/10.1016/j.jretconser.2018.08.002>.

Tursunbayeva, A., Pagliari C., Di Lauro, S. & Antonelli G. (2021), The ethics of people analytics: risks, opportunities and recommendations | *Emerald Insight*

Hirji, K.K. (2001). Exploring data mining implementation. *Communications of the ACM*, 44(7), pp.87–93. doi:<https://doi.org/10.1145/379300.379323>.