Student’s Name: Vincent Mokaya: SVNT/2308/06

Institution Affiliation: SEVENNET BOOT CAMP

Course Name: DATA ANALYTICS

Instructor’s Name: Mr. Ouma

Date: 8/21/23

**QSNT 1**

**Excel**

*History***:** According to Kaufman, & Yuthas (2022)**,** the spreadsheet program Microsoft Excel has been around since the 1980s and has grown to become one of the most utilized programs worldwide.

*Founders:* Microsoft was the creator of Excel.

*Merits*: useful for tiny datasets, straightforward visualizations, and quick calculations.

combining with other Microsoft Office programs.

*Demerits:* Prone to mistakes when doing complicated calculations.

fewer possibilities for data visualization compared to specialized tools.

**SQL**

*History*: IBM created SQL in the 1970s.

*Founders*: A range of academic and professional contributors.

*Advantages:* a capacity for handling intricate data interactions and doing advanced analytics.

often utilized for relational database management (Kaufman, & Yuthas (2022).

*Disadvantages:* Demands familiarity with particular syntax and database architecture.

Compared to specialized tools, it is not as user-friendly for data visualization.

**Python**

*Background:*Python, adaptable programming language for a wide of purposes, involving data study (Mahalle et al., 2022), has developed in popularity since its innovation in the early 1980s.

*Founders:*Guido van Rossum.

*Merits:* Extensive libraries for data utilization, analysis, and visualization, involving NumPy, pandas, and matplotlib (Salijeni et al., 2021. And flexibility for personalized automation and analysis operations**.**

*Demerits:* Compared to specialized equipment, may take more work to complete some tasks.

Inability to create interactive visualizations without using other libraries.

**Power BI**

*History:* The first edition of Microsoft's business analytics service, Power BI, was made available in 2013.

*Founder*: Microsoft

**Merits**

Integration is seamless with other Microsoft services and products.

Create interactive reports and dashboards using a user-friendly interface (Mahalle et al., 2022),

**Disadvantages**

For more sophisticated features and larger datasets, licensing costs can be necessary.

Compared to other tools (Kaufman, & Yuthas (2022), there are some restrictions on sophisticated data transformation

**Tableau**

*History*: Tableau was established in 2003 and rose to fame thanks to its interactive data visualization features.

*Founders:* Chris Stolte, Pat Hanrahan, and Christian Chabot

*Advantages*: Drag and drop interface that is simple to use for interactive visualizations.

ideally suited for data exploration and insight discovery.

*Demerits*: To use it to its best extent, additional training might be necessary, and when

Compared to specialized tools (Kaufman, & Yuthas (2022), limited in terms of complicated data processing and statistical analysis.

**References**

Kaufman, M., & Yuthas, K. (2022). Learning Analytics and Technology through Teaching. *Journal of Emerging Technologies in Accounting*, 19(2), 235-247.

Mahalle, P. N., Shinde, G. R., Pise, P. D., Deshmukh, J. Y., Mahalle, P. N., Shinde, G. R., ... & Deshmukh, J. Y. (2022). Data Visualization Tools and Data Modelling*. Foundations of Data Science for Engineering Problem Solving*, 49-72

Marella, G. (2023). *Digitalization of quality key performance indicators* (Doctoral dissertation, Technische Hochschule Ingolstadt).

Salijeni, G., Samsonova-Taddei, A., & Turley, S. (2021). Understanding how big data technologies reconfigure the nature and organization of financial statement audits: A sociometric analysis. *European Accounting Review*, 30(3), 531-555.