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# **Learner declaration**

I certify that the work submitted for this assignment is my own and research sources are fully acknowledged.

Student signature: Lawrence Date: November 4, 2023

# Task Wise Solutions:

### 1. Data Science Tools

- a. Python
  - i. Company Using: Google
  - ii. Purpose of Use: Google uses Python for various applications including data analysis and machine learning.
  - iii. Benefits: Python is easy to learn, has a strong set of libraries for data manipulation and analysis, and is widely used in the data science community.
  - iv. Before and After: Before using Python, data analysis tasks might have been more time-consuming and complex. After adopting Python, Google can perform these tasks more efficiently and effectively.

### b. R

- i. Company Using: Pfizer
- ii. Purpose of Use: Pfizer uses R for statistical analysis and graphics representation in drug development.
- iii. Benefits: R provides a wide variety of statistical and graphical techniques and is highly extensible.
- iv. Before and After: Before using R, Pfizer might have faced challenges in statistical computing and graphics. After adopting R, Pfizer can now easily handle these tasks.

# c. TensorFlow

- i. Company Using: Twitter
- ii. Purpose of Use: Twitter uses TensorFlow for machine learning tasks such as text classification for tweets.
- iii. Benefits: TensorFlow allows developers to create large-scale neural networks with many layers and is also very flexible and capable.
- iv. Before and After: Before using TensorFlow, Twitter might have struggled with text classification. After adopting TensorFlow, Twitter can now classify tweets more accurately and efficiently.

### 2. BI Tools

#### a. Tableau

- i. Company Using: Amazon
- ii. Purpose of Use: Amazon uses Tableau for visualizing data and gaining insights.
- iii. Benefits: Tableau is a powerful data visualization tool that can help Amazon understand their data better.
- iv. Before and After: Before using Tableau, Amazon might have had difficulty visualizing and understanding their data. After adopting Tableau, Amazon can now easily visualize their data and gain valuable insights.

#### b. Power BI

- i. Company Using: Adobe
- ii. Purpose of Use: Adobe uses Power BI for business analytics and to share insights across their organization.
- iii. Benefits: Power BI is a suite of business analytics tools that deliver insights throughout an organization.
- iv. Before and After: Before using Power BI, Adobe might have had difficulty sharing insights across their organization. After adopting Power BI, Adobe can now easily share insights and make informed decisions.

# c. Looker

- i. Company Using: The Economist
- ii. Purpose of Use: The Economist uses Looker to analyze their data and make data-driven decisions.
- iii. Benefits: Looker is a modern platform for data that offers data analytics and business insights to every department at a company.
- iv. Before and After: Before using Looker, The Economist might have had difficulty analyzing their data. After adopting Looker, The Economist can now make data-driven decisions.