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Business Intelligence

Quiz 1

1. Business Intelligence

a. Definition

Business Intelligence is a tool that facilitates the interpretation of big data within the business to analyze or predict strategies to be implemented to benefit the business.

b. Step to do

- *Extract Transform Load* to get raw data of the company
- Store the entire database that has been obtained from the first stage in the *Data Warehouse*
- Process the *BI results* by analyze the clean data (this could be by querying the data or other analysis)

c. Why do we need it?

From the existence of the industrial revolution 4.0. makes the tight business competition that requires companies to continue monitoring to develop their business. It has an impact on the process of data collection and analysis of Business Intelligence will become faster, practical and strategic (Such as helping companies to know their performance and achievements, identify new business opportunities according to the data generated, allocate resources more precisely and focus on achieving goals, manage system-based business inventory management).

2. Data Analytics vs Business Intelligence

a. Cons and Pro

Data Analytics	Business Intelligence
Pro <ul style="list-style-type: none">- Extract data from sources in real-time for anywhere, anytime access and immediate analysis.- Data storage and license fees can be reduced by reducing the amount of data processed.- Monitoring with monitoring tools.	Pro <ul style="list-style-type: none">- Helps collate big data in a short time into easy-to-understand graphs (visualization).- Offers multiple solutions to help you operate at the right scale- Manage big data in real time.

<ul style="list-style-type: none"> - Alerts and thresholds that can be used to look for specific data events in data points. - Failover and disaster recovery built in to ensure data protection. 	<ul style="list-style-type: none"> - Able to monitor how key performance indicators are properly met. - All information can be collated.
Cons <ul style="list-style-type: none"> - The size of the initial investment can be large. Businesses have to buy enterprise licenses, pay physical or cloud storage fees. - It is difficult to justify the investment on an ongoing basis, as storage and license fees increase over time depending on the number of gigabytes processed each day. - Businesses cannot send data to other processing environments and may struggle to use best-in-class cloud-based technologies. 	Cons <ul style="list-style-type: none"> - Different conclusions are drawn from the same data. - Implementation is expensive because some BI can only provide one specific surface. To get the best results from big data, users need to invest money to ensure full BI integration. - There is a risk of hacking when using mobile BI applications. This can jeopardize sensitive or confidential information of users. - Full implementation of the data storage system can take up time.

b. Difference

Business Intelligence is concerned with collecting raw data and then evaluating the historical growth of a business, and may or may not place emphasis on innovation. Consists of tools that handle data collection, generate scoreboards and reports

Data Analytics is all about transforming raw data and analyzing it to establish future trends and patterns, which ensures business officials engage in their business operations in an innovative way. Tackles tools and techniques that facilitate data analysis while transforming data into meaningful chunks.

3. List existing tools that can produce Business Intelligence and Data Analytics

Business Intelligence

- Google data studio
- Tableau
- Lookers
- Microsoft Power BI
- etc.

Data Analytics

- Excel
- SQL
- SPSS
- Jupiter Notebooks
- Apache Spark
- etc.

Source:

<https://anyconnector.com/data-transformation/business-intelligence-system.html>

<https://www.careerprosandcons.com/pros-and-cons-of-being-a-data-analyst/>

<https://www.analyticssteps.com/blogs/5-difference-between-business-intelligence-and-data-analytics>

<https://www.kitalulus.com/bisnis/business-intelligence>