IST722: Unit 01 Class Exercise

This is an individual assignment.

Before you begin, please make sure you've read and understand 1) our class honor code, 2) course policies on late work and 3) participation policies as posted on the syllabus. "I didn't know" is not an excuse.

You should cite your sources in a standard format like MPA or APA and include a list of works cited.

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Instructions

Answer each of the following questions as concisely as possible. More is not necessarily better. Please justify your answer by citing your sources from the assigned readings from our textbooks, our class lectures, or online if directed to do so. Be sure to cite in text and include a list of works cited. Place your answer below each question. When you're finished, print out this document and bring it to class as part of your participation grade.

Questions

[1] Why is data in organizations the more important asset?

Ans. Data = Knowledge. Good data provides indisputable evidence, while anecdotal evidence, assumptions, or abstract observation might lead to wasted resources due to taking action based on an incorrect conclusion. Data is undoubtedly an important asset to any organization as it helps to make informed decisions, improve people's lives, strategies the organization approaches, Maximizes profit, etc.

[2] What are the 4 characteristics of a data warehouse and provide your own novel examples of each?

Ans. The 4 characteristics of Data Warehouse are:

1. Subject Oriented: Data are stored with a subject orientation that facilitates multiple views of the data and facilitates decision making. Example: sales may be recorded by product, by division, or by region.
2. Integrated: Provide a unified view of all data elements with a common definition and representation of all business units.
3. Time Variant: Data are recorded with a historical perspective in mind. Therefore, a time dimension is added to facilitate data analysis and various time comparisons.
4. Non-Volatile: Data cannot be changed. Data are only added periodically from historical systems. Once the data are properly stored, no changes are allowed. Therefore, the data environment is relatively static.

[3] You probably noticed we made a "copy" of the data from the source system to the data warehouse. Can you think of three reasons why the data must be a copy and you cannot just use the original data?

Ans. Three reasons why data must be a copy are:

1. Business teams can try out new data sources, new reports in isolation without impacting the original data.
2. We can easily load a new dataset and it won't affect original data if there is a problem while loading new dataset and requires a fix to change the existing tables.
3. Some data may consist very sensitive information which we cannot lose in any condition. Therefore, we should be working on copy data instead of original.

[4] What is the difference between business intelligence and data warehouse?

Ans.

Business Intelligence	Data Warehouse
The goal is to generate business insights	The goal is to store data from several sources
Output: Data Visualization, Dashboards & reporting	Output: unified data for upstream BI applications
Audience: C- level executives, managers and data analyst	Audience: Data Engineers, Back End developers
Example: datapine	Example: Amazon Redshift

WORKS CITED:

https://www.c-q-l.org/resources/guides/12-reasons-why-data-is-important/

Professor Slides