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Subject: Dataware House

Answer 1:
Difference between Data warehouse and database:

1) OLTP Solutions are best used with a database, where data warehouses are best suited for OLAP solutions.

2) Databases can handle thousands of users at one time, whereas data warehouses can only handle a smaller number.

3) Databases are most useful for the small, atomic transactions, whereas data warehouses are best suited for larger questions that require higher level of analysis.

4) Databases need to be available 24/7/365, meaning downtime is costly. Data warehouses aren't as affected by downtime.

5) Databases are optimized to be lightning-quick for the CRUD operations (create, read, update, and delete). Data warehouses are optimized for a smaller number of more complex queries over multiple large data stores.

6) Databases are structured as efficiently as possible, with no duplicate information in multiple tables. Data warehouses typically denormalize their data, prioritizing read operations over write operations.

7) Databases typically contain only the most up-to-date information, which makes historical queries impossible. Data warehouses have been designed from the ground up for reporting and analysis purposes.

Answer 2:

❖ **Our business intelligence and data warehousing teams help our clients:**

- **Avoiding the typical pitfalls of BI/DWH initiatives:** Lack of information governance, lack of clear business rules and metrics, and lack of executive sponsorship

- **Realizing the main benefits of a BI/DWH initiative:** Timely, accurate and consistent information, better informed decision-making and reduced risk and cost of managing information.

❖ **Our major services offerings include:**

- **BI/DWH Strategy:** Determine our clients' BI/DWH strategy, including architecture blueprints, tool selections, organization & data governance, business case and roadmap.

- **BI/DWH Maturity Assessments:** Assess our clients' current BI/DWH maturity and determine their ambitions for the future.

- **Key Performance Indicator design:** Help our clients pinpoint the metrics and measurements that can drive business value.

- **BI/DWH Implementations:** Help our clients develop and implement an information architecture that supports data warehousing, reporting and analysis.

- **Advanced Analytics:** Help our clients going one step further in analyzing their data. Examples include data mining, predictive modeling, pricing analysis and spend analysis.

- **Compliancy Reporting:** Support compliancy reporting in all kinds of formats - such as xbrl and xml.

Answer 3:

Data mining different from data warehouse:

KEY DIFFERENCE:

- **Data mining** is considered as a process of extracting data from large data sets, **whereas a Data warehouse** is the process of pooling all the relevant data together.

- **Data mining** is the process of analyzing unknown patterns of data, **whereas a Data warehouse** is a technique for collecting and managing data.

- **Data mining** is usually done by business users with the assistance of engineers **while Data warehousing** is a process which needs to occur before any data mining can take place

- **Data mining** allows users to ask more complicated queries which would increase the workload **while Data Warehouse** is complicated to implement and maintain.

- **Data mining** helps to create suggestive patterns of important factors like the buying habits of customers **while Data Warehouse** is useful for operational business systems like CRM systems when the warehouse is integrated.