Group 8: Brandon Dlugosz, Kristine Hanus, Laura Glathar, Arkya Rakshit, Jace Christ

1. *What is the difference between Relational Database Modeling and Dimension Database Modeling?*

Relational Database Modeling is transactional modeling that is optimized for insert, update, and delete. It provides a declarative method for specifying data and queries. A relational database is software, which facilitates storage of data in tables, with each row being unique. Dimensional Database Modeling is optimized for selection of data to support complicated and aggregate queries, and is oriented around understandability and performance.

1. *What factors would influence decision making against the favor of ‘low hanging fruit’ for Prioritization of enterprise intelligence initiatives?*

The two main factors that would influence decision making against the favor of ‘low hanging fruit’ are regulation and compliance.

1. *What are the functions of a database administrator?*

The functions of database administrator include:

* Registering and Monitoring Users
* Enforcing Data Security
* Monitoring Performance of Servers
* Maintaining Data Integrity
* Software Upgrades and Patches
* Data Backups and Recovery
* Industry and Company Policies and Protocol Maintenance

1. *What is the difference between Data Definition Language and Data Manipulation Language?*

Data Definition Language is a standard for commands that define the different structures in a database. The statements create, modify and remove database objects such as tables, indexes, and users. Data Manipulation Language is used for selecting, inserting, deleting, and updating data into a database.

1. *Which DML statement is used for reporting and for building analytic enablers? What is its basic syntax?*

The DML statement used for reporting and building analytic enablers is the select statement. It’s basic syntax is:

SELECT column\_name,column\_name

FROM table\_name;

**OR**

SELECT \* FROM table\_name;

1. *What are the key success factors for successful implementation of applied business intelligence program?*

The three key success factors for successful implementation of applied business intelligence are business skills, analytical skills, and technical skills. It is very difficult to find all three skills for the right combination.

1. *What are the modes by which users can retrieve the data from a database?*

The two main modes by which users can retrieve the data from a database are queries and application software websites.

1. *Which graphical analysis tool is used to determine low hanging fruit of business analytics initiatives? What is a ‘low hanging fruit’ in this context?*

The graphical tool used to determine a low hanging fruit of business analytics initiatives is a Cost and Benefit Analysis. A low hanging fruit, as seen in the graph on our PowerPoint, is a 2, where the cost outweighs the benefit.

1. *Is MS Access a relational database? Explain the reason for your answer.*

Yes, MS Access is a tool to build relational databases. By definition, a relational database is software that facilitates storage of data in tables, and each having unique represented by a unique key. In Access, you cannot just insert data; you have to create a relational design, dividing information into one or multiple tables. The tables are connected using relational joins, where a field in one table relates to a field in another.

1. *What is the difference between business intelligence and applied business intelligence?*

Business intelligence is the set of techniques or tools for the transformation of data into meaningful and useful information for business analytical purposes. Applied business intelligence. It is used both retrospectively analyze past performance and prospectively to forecast new business. Applied business intelligence is taking the business analytics stemmed from the business intelligence and making business decisions.

*2. Get a count of number of customers. Report Columns: # Customers*

SELECT Count(Customer.CustomerID) AS [Customers]  
FROM Customer

*3. Get count of number of customers by state and sort them in descending order. Report Columns: State, # Customers.*

SELECT Count(Customer.CustomerID) AS [#Customers], Customer.State

FROM Customer

GROUP BY Customer.State

ORDER BY Customer.State DESC;

*4. Filter the query in 3 by florida. Columns: State, # Customers.*

SELECT Count(Customer.CustomerID) AS [#Customers], Customer.State

FROM Customer

GROUP BY Customer.State

HAVING (((Customer.State)="FL"))

ORDER BY Customer.State DESC;

*5. Get top 3 customers by total order amount. Report Columns: Customer Name, Phone Number,  Customer Since, Last Order Date,Total Order Amount*

SELECT TOP 3 TRIM(Customer.FirstName)+' '+Customer.LastName AS [Customer Name], Customer.HomePhone, Customer.CustomerSince, Orders.OrderDate, ServicePlans.PlanPrice

FROM (Customer INNER JOIN Orders ON Customer.CustomerID = Orders.CustomerID) INNER JOIN ServicePlans ON Orders.PlanID = ServicePlans.PlanID

GROUP BY Customer.FirstName, Customer.LastName, Customer.HomePhone, Customer.CustomerSince, Orders.OrderDate, ServicePlans.PlanPrice;

*6. Get top 3 customers by total discount amount. Report Columns: Customer Name, Last Order Date, Total Discount.*

SELECT TOP 3 Trim(Customer.FirstName)+' '+Customer.LastName AS [Customer Name], Orders.OrderDate, ServicePlans.DiscountedPrice

FROM (Customer INNER JOIN Orders ON Customer.CustomerID = Orders.CustomerID) INNER JOIN ServicePlans ON Orders.PlanID = ServicePlans.PlanID

GROUP BY Orders.OrderDate, Customer.FirstName, Customer.LastName, ServicePlans.DiscountedPrice;