

Clarification Questions from Client

1. How do Azure Blob Storage and SQL Server Database differ, and why can't Microsoft Power BI connect directly to Blob Storage? What advantages does SQL Server offer in this context?

Azure Blob Storage is a cloud-based object storage service that stores unstructured or semi-structured data, such as images, videos, and files. It's ideal for storing huge amounts of data that don't require complex querying or transactions.

A SQL Server Database, on the other hand, is a relational database management system that stores structured data in tables with schemas. It's used for querying, transactions, and data relationships.

Microsoft Power BI can't connect directly to Blob Storage because it's not designed to handle unstructured data. Power BI is optimized for working with structured data.

Advantages of SQL Server:

- SQL Server stores data in a structured format, making it easier to query and analyze
- SQL Server provides robust querying capabilities, allowing for more efficient data retrieval and manipulation

2. What is the primary function of relationships between tables in Microsoft Power BI? Describe a situation where you might use a 'One-to-Many' relationship and how it benefits the data model.

Relationships in Power BI define how tables connect and interact with each other, allowing for data from different tables to be combined and analyzed as if they were a single table.

A 'One-to-Many' relationship is used when one record in a table (the "one" side) is related to multiple records in another table (the "many" side).

3. What is a DAX measure in Microsoft Power BI, and how does it differ from a calculated column?

DAX Measure:

- **Definition:** A DAX measure is a dynamic calculation used to perform aggregations or computations on data as you interact with it (e.g., sums, averages, percentages)

Calculated Column:

- **Definition:** A column added to a table using a DAX formula that creates new data during the data loading process and becomes part of the table.

4. How does the semantic data model relate to Microsoft Power BI dashboard development, and why is it crucial?

A semantic data model is a conceptual representation of the data, including its meaning, relationships, and structure. In Power BI, the semantic data model is crucial because it enables the creation of meaningful and accurate reports, dashboards, and visualizations.

- Provides a clear understanding of the data and its relationships
- Enables the creation of accurate and meaningful calculations and measures