**What is the importance of data modeling in Power BI?**

🡪Data modeling helps to organize and structure data in a way that makes reporting accurate, efficient, and easy to maintain. A good data model improves performance and gives good result.

**Can you explain the difference between fact and dimension tables?**

🡪Fact tables store measurable data like sales, revenue, or quantities and dimension tables hold descriptive attributes like customer name, product category, or region.

**How do you create relationships between tables in Power BI?**

🡪Relationships are created using primary and foreign keys. In Power BI, you can drag and drop fields in the Model view or set them up manually by defining the cardinality .

**What are bi-directional filters, and when should they be used?**

🡪Bi-directional filters allow filters to flow in both directions between related tables. They are useful in scenarios like many-to-many relationships but used carefully to avoid complications.

**Why is it important to hide fields in the report view?**

🡪Hiding unnecessary fields keeps the report clean and It prevents confusion for end users.

**What are some best practices for organizing tables in a data model?**

🡪Keep a clear separation of fact and dimension tables . Use meaningful names for columns. Avoid duplicate and unused fields. Maintain a star schema whenever possible.

**Can you describe the concept of normalization in data modeling?**

🡪Normalization is the process of structuring data to reduce redundancy and dependency. It breaks large tables into smaller, related ones.

**What is the purpose of creating hierarchies in a data model?**

🡪Hierarchies allow users to drill down from higher-level data to more detailed data (e.g., Year → Quarter → Month → Day). This improves navigation and makes reports more interactive.

**How do you ensure data integrity when designing a data model?**

🡪By defining correct relationships, setting cardinality properly, and validating data sources. Also, keeping a clean schema and avoiding duplicate records helps maintain accuracy.

**Why is it recommended to avoid complex relationships in a data model?**

🡪Complex relationships (like many-to-many) can slow down performance, and lead to wrong results. Keeping the model simple ensures clarity and faster performance.