**Interview Questions:**

**Power BI :**

21. Can you provide examples of DAX functions commonly used in Power BI?

1. Solution- **CALCULATE**: It's used to apply filters to data, modify context, and perform calculations within specified conditions.

Example: **CALCULATE(SUM(Sales[Revenue]), FILTER(Sales, Sales[Year] = 2023))**

1. **SUM**: Calculates the sum of the values in a column or expression.

Example: **SUM(Sales[Revenue])**

1. **AVERAGE**: Calculates the arithmetic mean of the values in a column or expression.

Example: **AVERAGE(Sales[Units Sold])**

1. **COUNT**: Counts the number of rows that contain a number or expression.

Example: **COUNT(Sales[Product ID])**

1. **FILTER**: Returns a table that represents a subset of another table or expression.

Example: **FILTER(Sales, Sales[Region] = "North")**

1. **RELATED**: Returns a related value from another table.

Example: **RELATED(Customer[Customer Name])**

1. **IF / IF ELSE**: Conditional function that returns one value if a condition is true and another value if it's false.

Example: **IF(Sales[Revenue] > 1000, "High", "Low")**

1. **MAX / MIN**: Returns the maximum or minimum value from a column or expression.

Example: **MAX(Sales[Revenue])**

1. **YEAR / MONTH / DAY**: Extracts the year, month, or day from a date.

Example: **YEAR(Sales[Order Date])**

1. **BLANK / ISBLANK**: BLANK returns a blank value, and ISBLANK checks whether a value is blank.

Example: **BLANK()** or **ISBLANK(Sales[Discount])**

22. Explain the syntax and usage of CALCULATE function in DAX.

Solution- Syntax- CALCULATE(<expression>, <filter1>, <filter2>, ...)

CALCULATE(

SUM(Sales[Revenue]),

Sales[Year] = 2023,

Sales[Product Category] = "Electronics"

)

23. How do you calculate the sum of a column using SUMX function in DAX?

Solution- Syntax- SUMX(<table>, <expression>)

SUMX(Sales, Sales[Revenue])

24. What is the purpose of the AVERAGE function in DAX?

Solution- Syntax- AVERAGE(<column>)

AverageSales = AVERAGE(Sales[Amount])

25. How does the IF function work in DAX? Provide an example.

Solution- Syntax- IF(<logical\_test>, <value\_if\_true>, <value\_if\_false>)

SalesCategory = IF(Sales[SalesAmount] > 1000, "High", "Low")

26. What is the use of the RELATED function in DAX?

Solution- The RELATED function in DAX is used to retrieve a single related value from a different table in a data model based on a relationship between the two tables.

Syntax:- RELATED(<column>)

CustomerName = RELATED(Customers[Name])

27. How do you concatenate strings in DAX? Provide an example.

Solution- **Using the "&" Operator:**

You can simply use the "&" operator to concatenate strings together. Here's a basic syntax: <string1> & <string2>

ConcatenatedString = "Hello, " & "World!"

**Using the CONCATENATE Function:**

The CONCATENATE function takes multiple strings as arguments and concatenates them together. Here's the syntax: CONCATENATE(<string1>, <string2>, ...)

ConcatenatedString = CONCATENATE("Hello, ", "World!")

28. Explain the purpose of the DATE function in DAX.

Solution- In DAX (Data Analysis Expressions), the DATE function serves the purpose of creating a date value from the provided year, month, and day components.

Here's the basic syntax of the DATE function: DATE(<year>, <month>, <day>)

DateColumn = DATE(2024, 5, 6)

29. Provide sample syntax for calculating the sum of a column in DAX.

Solution-   
To calculate the sum of a column in DAX, you can use the SUM function. Here's the sample syntax: SUM(<column>)

TotalSales = SUM(Sales[SalesAmount])

30. How do you filter data using DAX functions in Power BI?

Solution- In Power BI, you can filter data using DAX (Data Analysis Expressions) functions in various ways.

Here are some common methods: **Using CALCULATE Function with Filters**

**TotalSales = CALCULATE(SUM(Sales[SalesAmount]), Sales[Region] = "North")**

**Using FILTER Function**

**TotalSales = SUMX(FILTER(Sales, Sales[Region] = "North"), Sales[SalesAmount])**

**Using RELATEDTABLE Function**

RelatedSales = SUMX(RELATEDTABLE(Sales), Sales[SalesAmount])