POWER-BI SCENARIO BASED QUESTIONS

QUESTION 17 & 18

- Correct given DAX (Accenture question)
- TREATAS()

- MAYURI .D.

QUESTION 17

SAMPLE TABLES

Product	order date	Sales value	Country	Region
A	02 July 2022	100	India	Asia
A	22 July 2022	150	Srilanka	Asia
B	10 June 2020	400	Frace	Europe
B	10 August 2021	600	Germany	Europe
B	10 June 2022	200	Bangladesh	Asia
D	12 August 2021	150	South Africa	Africa
E	10 October 2021	275	Nigeria	Africa

Sales table

QUESTION 17(1)

Check whether following measure is correct to count rows whose sales are greater than 500

```
Count rows = CALCULATE(COUNTROWS(sales),[Total Sales] > 500)
```

Product	Total Sales
A	250
B	1200
D	150
E	275
Total	**1875**

```
1 Count rows = CALCULATE(COUNTROWS(sales),[Total Sales] > 500)
```

A function 'PLACEHOLDER' has been used in a True/False expression that is used as a table filter expression. This is not allowed.

Having a look at measure it looks correct but it gives error.
Bcoz, COUNTROWS() takes only one parameter – table.
To correct it use FILTER() in COUNTROWS().

```
1 Count rows = CALCULATE(COUNTROWS(sales),FILTER(sales,[Total Sales] > 500))
```

Product	Total Sales
A	250
B	1200
D	150
E	275
Total	**1875**

1
Count rows

QUESTION 17(2)

Optimized below DAX

```
1 Measure = IF(HASONEVALUE(sales[Country]), VALUES(sales[Country]))
```

```
Measure = IF(HASONEVALUE(sales[Country]), VALUES(sales[Country]))
```

Product	Total Sales
A	100
Total	**100**


```
Optimized measure = SELECTEDVALUE(sales[Country])
```

Product	Total Sales
A	100
Total	**100**

Given DAX works correctly.
But its lengthy DAX.

After optimizing, you can get same result by just using one function.

QUESTION 18

SAMPLE TABLE

product	order date	sales value
A	02 February 2018	500
A	05 April 2020	550
A	08 December 2024	600
B	25 August 2019	650
B	20 May 2020	700
C	01 January 2020	750
D	05 September 2021	800
D	09 November 2022	850
D	28 May 2023	900
E	23 August 2023	1000

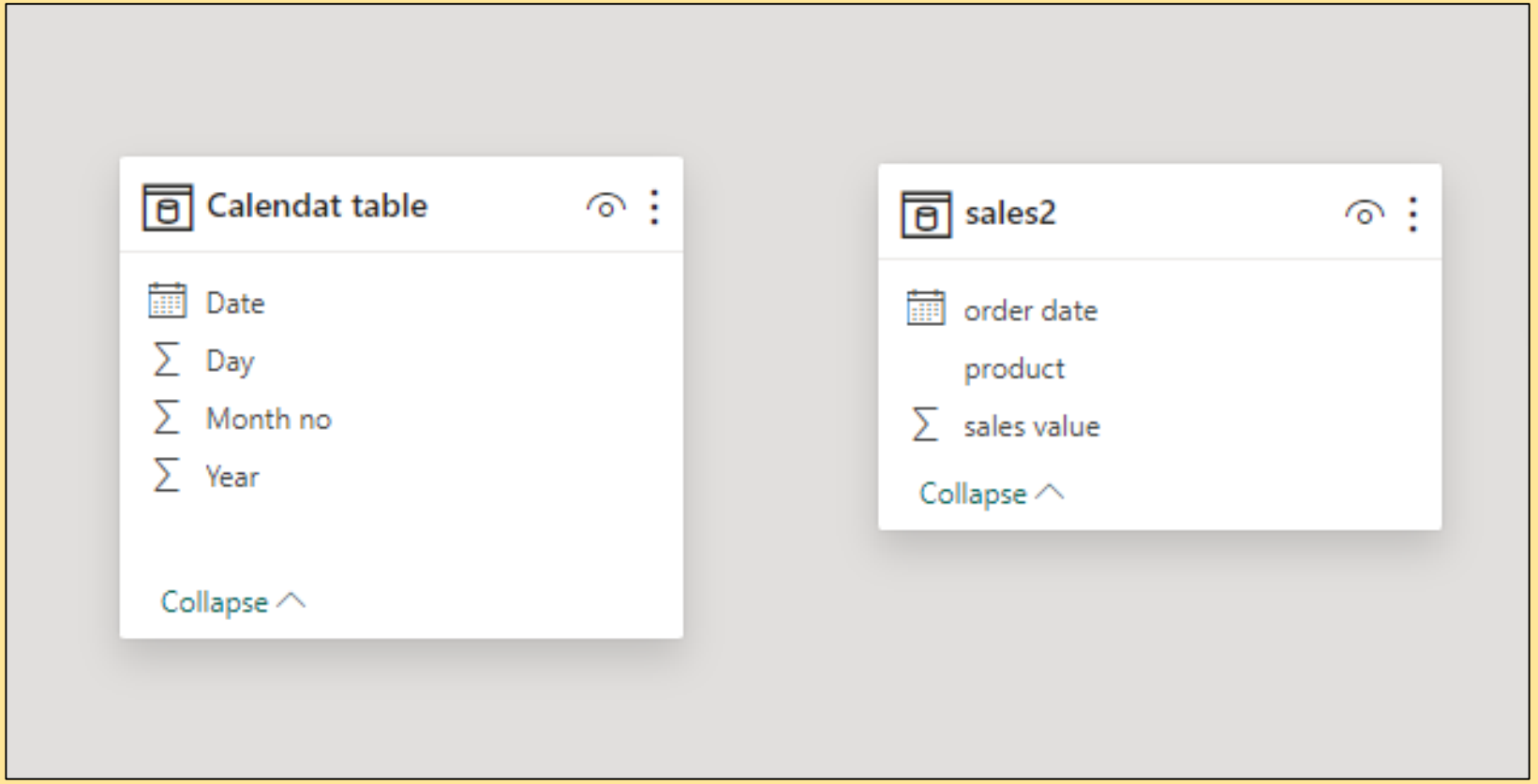
Sales2 table

Calendar table

```
1 Calendar_table =
2 var a = CALENDAR(DATE(2020,01,01), DATE(YEAR(TODAY()),MONTH(TODAY()),DAY(TODAY())))
3 RETURN
4 GENERATE(a,
5 var b = [DATE]
6 var c = YEAR([DATE])
7 var d = MONTH([DATE])
8 var e = DAY([DATE])
9 return
10 ROW("Year",c, "Month no", d, "Day", e))
```

QUESTION 18(1)

Which function is used to connect tables if not connected directly?



TREATAS() is used

QUESTION 18(2)

Using TREATAS() how to calculate sales based on years present in calendar table?

Year	sales value
2018	500
2019	650
2020	2000
2021	800
2022	850
2023	1900
2024	600
Total	**7300**

Calendar Year
2020
2021
2022
2023
2024

```
sales by calendaryear = CALCULATE(SUM(sales2[sales value]),
    TREATAS(VALUES('Calendar table'[Year]), sales2[order date].[Year]))
```

Year	sales value
2018	500
2019	650
2020	2000
2021	800
2022	850
2023	1900
2024	600
Total	**7300**

Calendar Year	sales by calendaryear
2020	2000
2021	800
2022	850
2023	1900
2024	600
Total	**6150**

In sales table, there are years from 2018 to 2024 whereas in calendar table years are from 2020 to 2024. so you need to calculate sales of year 2020 to 2024 by using VALUES() within TREATAS().

CALCULATE

Evaluates an expression in a modified filter context.

> **Note**
>
> There's also the **CALCULATETABLE** function. It performs exactly the same functionality, except it modifies the **filter context** applied to an expression that returns a *table object*.

Syntax

DAX

```
CALCULATE(<expression>[, <filter1> [, <filter2> [, …]]])
```

COUNTROWS

The COUNTROWS function counts the number of rows in the specified table, or in a table defined by an expression.

Syntax

DAX

```
COUNTROWS([<table>])
```

FILTER

Returns a table that represents a subset of another table or expression.

Syntax

DAX

```
FILTER(<table>,<filter>)
```

HASONEVALUE

Returns **TRUE** when the context for *columnName* has been filtered down to one distinct value only. Otherwise is **FALSE**.

Syntax

```
HTML

HASONEVALUE(<columnName>)
```

SELECTEDVALUE

Returns the value when the context for columnName has been filtered down to one distinct value only. Otherwise returns alternateResult.

Syntax

DAX

```
SELECTEDVALUE(<columnName>[, <alternateResult>])
```

TREATAS

Applies the result of a table expression as filters to columns from an unrelated table.

Syntax

DAX

```
TREATAS(table_expression, <column>[, <column>[, <column>[,…]]]} )
```

THANK YOU

- MAYURI .D.