

Instruction

Look through the below three tables, pay attention to the relationships might exist between them.
Write the queries listed below.

Note: We would love to hear your thought process as you go through the requirement and writing the queries.

territory				
territory_key	region	subregion	segment	territory
1	UKIR	UK	ENT	ENT-UK-1
2	UKIR	IE	MMT	MMT-IE-1
3	DACH	DE	ENT	ENT-DE-2
4	DACH	IT	MMT	MMT-IT-1
5	DACH	CH	MMT	MMT-CH-6
6	FR	FR	FCD	FCD-FR-1
7	ITALY	ITALY	MMN	MMN-ITALY-5
8	UKIR	UK	MMN	MMN-UK-2
9	UKIR	IE	FCD	FCD-IE-2
10	DACH	DE	MMT	MMT-DE-9
11	UKIR	UK	ENT	NULL
12	UKIR	UK	MMT	Whitespace
13	UKIR	UK	ENT	Whitespace
14	DACH	DE	ENT	Whitespace

calendar	
calendar_key	calendardate
20190101	2019-01-01 00:00:00
20190201	2019-02-01 00:00:00
20190301	2019-03-01 00:00:00
20190401	2019-04-01 00:00:00
20180101	2018-01-01 00:00:00
20180201	2018-02-01 00:00:00
20180301	2018-03-01 00:00:00
20180401	2018-04-01 00:00:00
20170101	2017-01-01 00:00:00
20170201	2017-02-01 00:00:00
20170301	2017-03-01 00:00:00
20170401	2017-04-01 00:00:00

Revenue			
Revenue_key	territory_key	calendar_key	revenue
1	1	20190101	20,000.00
2	1	20190201	22,000.00
3	1	20190301	23,500.00
4	1	20190401	25,000.00
5	2	20190101	6,000.00
6	2	20190201	6,500.00
7	2	20190301	6,200.00
8	2	20190401	6,600.00
9	3	20190101	18,500.00
10	3	20190201	19,000.00
11	3	20190301	20,000.00
12	3	20190401	25,000.00
13	1	20180101	19,000.00
14	1	20180201	19,500.00

Query 1

Write a query that returns unique regions in territory table.

Result should look like this

region
DACH
FR
ITALY
UKIR

Query 2

Write a query that returns all the subregions in *UKIR* region.

Result should look like this

subregion
IE
UKIR

Query 3

Write a query that shows how many territories exist per region.
Order the result based on the highest number of territories.

Result should look like this

region	your_name
UKIR	6
DACH	5
FR	1
ITALY	1

Query 4

Write a query that returns the *total revenue* for the *current year*.

Result should look like this

your_name
193,300.00

Query 5

Write a query that returns the total revenue per region.
Only take current year year into account and show the region with the highest revenue at the top.

Result should look like this

region	your_name
UKIR	115,800.00
DACH	82,500.00

Query 6

Write a query that returns the *region*, *subregion*, *segment*, *territory* and total revenue.
Only take current year into account. Filter the result to only show ENT segment.
Only return total revenues greater than 85,000.

Result should look like this

region	subregion	segment	territory	total_revenue
UKIR	UK	ENT	ENT-UK-1	90,500.00

Query 7

Write a query that calculates Month over Month growth using
 $\frac{\text{sum}(\text{revenue for current month})}{\text{sum}(\text{revenue from previous month})} - 1$

FOR UK subregion

Result should look like this

calendar_key	revenue	MoM%
20190101	20,000.00	
20190201	22,000.00	10%
20190301	23,500.00	7%
20190401	25,000.00	6%

Query 8

Take a look at the two tables below.
Write a query that calculates the total sale for each month and amount of sales per day for each month

Result should look like this

Month	Sales	Sales per day
2001-01-01 00:00:00	125	4.03
2001-02-01 00:00:00	85	3.04

Sales				
Month	Division	Employee	Product	Sales
2001-01-01 00:00:00	A	John	Eggs	50
2001-01-01 00:00:00	B	Paul	Milk	25
2001-01-01 00:00:00	A	John	Apples	50
2001-02-01 00:00:00	B	Paul	Milk	10
2001-02-01 00:00:00	A	John	Apples	20
2001-02-01 00:00:00	B	Paul	Bread	30

calendar		
Date	Month	Days in Month
2019-01-01 00:00:00	2001-01-01 00:00:00	31
2019-01-02 00:00:00	2001-01-01 00:00:00	31
2019-01-03 00:00:00	2001-01-01 00:00:00	31
2019-01-04 00:00:00	2001-01-01 00:00:00	31
2019-01-05 00:00:00	2001-02-01 00:00:00	28
2019-01-06 00:00:00	2001-02-01 00:00:00	28
2019-01-07 00:00:00	2001-02-01 00:00:00	28
2019-01-08 00:00:00	2001-02-01 00:00:00	28