GESTIÓN DE DATOS -QUIZ 3-

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1. Obtener la categoría, la subcategoría, el nombre y el número de cada producto de la base de datos.

Para obtener lo solicitado se genera el siguiente código:

```
select DISTINCT C.name as Category,
    B.name as Subcategory,
    A.name as product,
    A.productnumber as numero_producto
from production.product A
LEFT JOIN production.productsubcategory B
ON A.productsubcategoryid=B.productsubcategoryid
left join production.productcategory C
ON B.productcategoryid=C.productcategoryid
```

Como resultado, se obtiene:

Data output | Messages | Notifications

	category character varying (50)	subcategory character varying (50)	product character varying (50)	numero_producto character varying (25)
1	Bikes	Mountain Bikes	Mountain-300 Black, 40	BK-M47B-40
2	[null]	[null]	Lock Washer 3	LW-8000
3	[null]	[null]	Thin-Jam Hex Nut 4	HJ-5162
4	[null]	[null]	Internal Lock Washer 7	LI-3800
5	[null]	[null]	Lock Nut 22	LN-3410
6	Components	Mountain Frames	ML Mountain Frame - ...	FR-M63B-48
7	Bikes	Touring Bikes	Touring-3000 Blue, 58	BK-T18U-58
8	[null]	[null]	Lock Nut 5	LN-1024
9	Components	Cranksets	LL Crankset	CS-4759
10	[null]	[null]	Front Derailleur Cage	FC-3982
11	[null]	[null]	Lock Nut 1	LN-4400
12	Components	Mountain Frames	ML Mountain Frame-...	FR-M63S-46

Cabe resaltar que para el caso bajo análisis hay una relación de uno a muchos entre categoría y subcategoría y entre la categoría y el producto.

2. Obtener la serie de tiempo mensual del total de ventas por región solo para las regiones de Estados Unidos.

Para obtener los resultados buscados, se estableció el siguiente código:

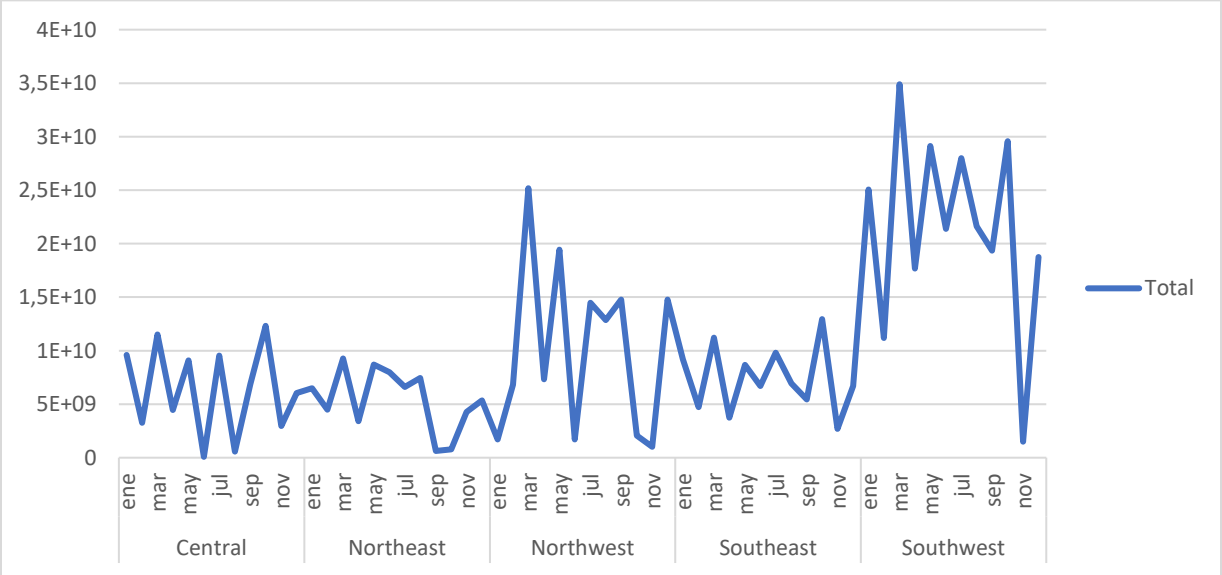
Query | Query History

```
SELECT C.mes
 ,SUM(C.sales) as sales
 ,C.region
 ,C.countryregioncode
 FROM(
 SELECT --SUBSTRING(CAST(A.duedate AS VARCHAR),1,4) AS ANIO
 CASE WHEN SUBSTRING(CAST(A.orderdate AS VARCHAR),6,2)='01' THEN 'ene'
     WHEN SUBSTRING(CAST(A.orderdate AS VARCHAR),6,2)='02' THEN 'feb'
     WHEN SUBSTRING(CAST(A.orderdate AS VARCHAR),6,2)='03' THEN 'mar'
     WHEN SUBSTRING(CAST(A.orderdate AS VARCHAR),6,2)='04' THEN 'abr'
     WHEN SUBSTRING(CAST(A.orderdate AS VARCHAR),6,2)='05' THEN 'may'
     WHEN SUBSTRING(CAST(A.orderdate AS VARCHAR),6,2)='06' THEN 'jun'
     WHEN SUBSTRING(CAST(A.orderdate AS VARCHAR),6,2)='07' THEN 'jul'
     WHEN SUBSTRING(CAST(A.orderdate AS VARCHAR),6,2)='08' THEN 'ago'
     WHEN SUBSTRING(CAST(A.orderdate AS VARCHAR),6,2)='09' THEN 'sep'
     WHEN SUBSTRING(CAST(A.orderdate AS VARCHAR),6,2)='10' THEN 'oct'
     WHEN SUBSTRING(CAST(A.orderdate AS VARCHAR),6,2)='11' THEN 'nov'
     WHEN SUBSTRING(CAST(A.orderdate AS VARCHAR),6,2)='12' THEN 'dic'
     END AS MES
 ,SUM(A.totaldue)  as sales
 ,B.NAME as region
 ,B.COUNTRYREGIONCODE
    FROM sales.salesorderheader A
 left join sales.salesterritory B
    ON A.territoryid=B.territoryid
    Where B.countryregioncode = 'US'
GROUP BY
--SUBSTRING(CAST(A.duedate AS VARCHAR),1,4)
 SUBSTRING(CAST(A.orderdate AS VARCHAR),6,2)
 ,B.NAME
 ,B.COUNTRYREGIONCODE
     )C
     GROUP BY
     C.mes
     ,C.region
 ,C.countryregioncode
;
```

Como resultado, se obtiene como output:

	mes text	sales numeric	region character varying (50)	countryregioncode character varying (3)
1	ago	1286092.940	Northwest	US
2	oct	774071.9370	Northeast	US
3	oct	2957802.985	Southwest	US
4	jul	662565.7783	Northeast	US
5	jun	1715163.803	Northwest	US
6	ene	960241.3101	Central	US
7	mar	1120479.922	Southeast	US
8	jul	2799157.112	Southwest	US
9	jul	1447199.821	Northwest	US
10	ago	694129.7124	Southeast	US
11	mar	1151282.941	Central	US
12	sep	685333.8939	Central	US

Gráficamente:



3. Con base en la consulta anterior, se busca sacar las tres (3) principales tiendas según ventas del Reino Unido. Para al fin, se cruzan las tablas "*countryregion*", "*currency*" y "*store*".

```sql
SELECT E.SALES,E.ANIO,E.TIENDA,e.currency
 FROM(
 SELECT D.ANIO,
 SUM(D.SALES) AS SALES,C.name as tienda,D.currency
 FROM(
 SELECT SUBSTRING(CAST(A.orderdate AS VARCHAR),1,4) AS ANIO
 ,SUM(A.totaldue)  as sales
 ,A.salespersonid
 ,Y.name AS currency
 ,B.countryregioncode
    FROM sales.salesorderheader A
 left join sales.salesterritory B
    ON A.territoryid=B.territoryid
left join sales.countryregioncurrency X
     ON B.countryregioncode=X.countryregioncode
     left join sales.currency Y
     ON X.currencycode = Y.currencycode
 GROUP BY
    SUBSTRING(CAST(A.orderdate AS VARCHAR),1,4)
 ,A.salespersonid
 ,Y.name
 ,B.countryregioncode
HAVING B.countryregioncode = 'GB')D
   left join sales.store C
   ON D.salespersonid = C.salespersonid
   WHERE ANIO = '2014'
    AND name is not null
   GROUP BY D.ANIO,C.name, D.currency
    )E
    ORDER BY E.SALES DESC
    limit 3
    ;

```

Como resultado, se obtiene el siguiente output:

	sales numeric	anio text	tienda character varying (50)	currency character varying (50)
1	1177338.4010	2014	Designated Distributors	United Kingdom Pound
2	1177338.4010	2014	Two-Wheeled Transit Compa…	United Kingdom Pound
3	1177338.4010	2014	Workout Emporium	United Kingdom Pound