

Taller Práctico de SQL con AdventureWorksLT2019

1. Exploración de Datos:

- Realiza una consulta para mostrar los primeros 20 registros de la tabla 'SalesLT.Customer'.

Imagen # 1. Microsoft SQL Server Management Studio.

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor at the top contains the following SQL code:

```
USE AdventureWorksLT2017; -- I specify the database, I want to use.

SELECT TOP 20 *
FROM SalesLT.Customer; -- Retrieve the first 20 records from the Customer table.
```

The Results pane below shows the first 20 records of the SalesLT.Customer table. The columns are: CustomerID, NameStyle, Title, FirstName, MiddleName, LastName, Suffix, CompanyName, SalesPerson, EmailAddress, Phone, and PasswordHash. The data is as follows:

| CustomerID | NameStyle | Title | FirstName | MiddleName | LastName | Suffix | CompanyName | SalesPerson | EmailAddress | Phone | PasswordHash |
|------------|-----------|-------|-------------|------------|------------|--------|----------------------------|--------------------------|----------------------------------|---------------------|---|
| 1 | 0 | Mr. | Orlando | N. | Gee | NULL | A Bike Store | adventure-works\pamela0 | orlando0@adventure-works.com | 245-555-0173 | L/Rlwzxp4w7RWmEqXX+/A7cXaePEPcp+KwQhI2 |
| 2 | 0 | Mr. | Keith | NULL | Harris | NULL | Progressive Sports | adventure-works\david8 | keith0@adventure-works.com | 170-555-0127 | YPdtRdvqeAhy6wyxESfshBDNXkCXn+CRgbvJlt |
| 3 | 0 | Ms. | Donna | F. | Carreras | NULL | Advanced Bike Components | adventure-works\jillian0 | donna0@adventure-works.com | 279-555-0130 | LNoK27abGQo48gGue3EBV/UHYSToV0/s87dCR |
| 4 | 0 | Ms. | Janet | M. | Gates | NULL | Modular Cycle Systems | adventure-works\jillian0 | janet1@adventure-works.com | 710-555-0173 | BlzTpSnbUW1Uk+L5cWfR7MF6nBZa8WpmGaQf |
| 5 | 0 | Mr. | Lucy | NULL | Harrington | NULL | Metropolitan Sports Supply | adventure-works\shu0 | lucy0@adventure-works.com | 828-555-0186 | KlqV15wsX3PG8TS5GSddp6LFVdd3C0RtZMfP |
| 6 | 0 | Ms. | Rosmarie | J. | Carroll | NULL | Aerobic Exercise Company | adventure-works\linda3 | rosmarie0@adventure-works.com | 244-555-0112 | OKT0scizCdIzymHH0TyJKQICfCILSooS28dQ2Y34 |
| 7 | 0 | Mr. | Dominic | P. | Gash | NULL | Associated Bikes | adventure-works\shu0 | dominic0@adventure-works.com | 192-555-0173 | ZocoP/JZGQm+Xpzc7RKwDhS11FYfNybwcPVRYT |
| 8 | 0 | Ms. | Kathleen | M. | Garza | NULL | Rural Cycle Emporium | adventure-works\josé1 | kathleen0@adventure-works.com | 150-555-0127 | Qa3aMCxNbVLGrc0b99KsbQqjGwYDfHxK9GZS |
| 9 | 0 | Ms. | Katherine | NULL | Harding | NULL | Sharp Bikes | adventure-works\josé1 | katherine0@adventure-works.com | 926-555-0159 | uRlorVzDGNJIX9I+ehTIRK+it4UKRgWhApJgUMC |
| 10 | 0 | Mr. | Johnny | A. | Caprio | Jr. | Bikes and Motorbikes | adventure-works\garrett1 | johnny0@adventure-works.com | 112-555-0191 | gF9BoFYeJTaET7x+eJDKd7Bz15W09dbGPBa |
| 11 | 0 | Mr. | Christopher | R. | Beck | Jr. | Bulk Discount Store | adventure-works\jae0 | christopher1@adventure-works.com | 1 (11) 500 555-0132 | sRt9daCzEEKWazivEGPOp8tma1MR3l+aJfCbjzRl |
| 12 | 0 | Mr. | David | J. | Liu | NULL | Catalog Store | adventure-works\micha... | david20@adventure-works.com | 440-555-0132 | 61zeTkO+eI5g8GG0wny8Wp/6GzZMFn71fnW4 |
| 13 | 0 | Mr. | John | A. | Beaver | NULL | Center Cycle Shop | adventure-works\pamela0 | john8@adventure-works.com | 521-555-0195 | DzbqWX7B3EK5Dub92CKHY5UGKGBZCbrCvDpV |
| 14 | 0 | Ms. | Jean | P. | Handley | NULL | Central Discount Store | adventure-works\david8 | jean1@adventure-works.com | 582-555-0113 | o1GV03vExeNzo0/ctdRGf2eDK3uzTicUbr18N+Sf |
| 15 | 0 | N... | Jinghao | NULL | Liu | NULL | Chic Department Stores | adventure-works\jillian0 | jinghao1@adventure-works.com | 928-555-0116 | laD5AeqK9mRilrJt/etZGV06EybLf/okaA2CqpoJ0 |
| 16 | 0 | Ms. | Linda | E. | Burnett | NULL | Travel Systems | adventure-works\jillian0 | linda4@adventure-works.com | 121-555-0121 | 23AwhujCoXYSYN/B+G8Z9k36x35EbdLTak7M |
| 17 | 0 | Mr. | Kevin | NULL | Hanif | NULL | Bike World | adventure-works\shu0 | kevin0@adventure-works.com | 216-555-0122 | dOWSjosAd7Y3XOWjNkAoTCICb50vwwPuAawOS11 |
| 18 | 0 | Mr. | Kevin | NULL | Liu | NULL | Eastside Department Store | adventure-works\linda3 | kevin5@adventure-works.com | 926-555-0164 | yITpkiOHLKghNjS0/k10eOH0sWQMhnbuOCp+I |
| 19 | 0 | Mr. | Donald | L. | Blanton | NULL | Coalition Bike Company | adventure-works\shu0 | donald0@adventure-works.com | 357-555-0161 | pKYDeLLBOZM098BzhMxSzE0gUYKx9dXzYT |
| 20 | 0 | Ms. | Jackie | E. | Blackwell | NULL | Commuter Bicycle Store | adventure-works\josé1 | jackie0@adventure-works.com | 972-555-0163 | wqh9Kf0Tf4Z03cb6FwsFzvG/yCvYatYh3AuwjRt |

Imagen # 2. Azure Data Studio.

The screenshot shows the Azure Data Studio interface. The query editor at the top contains the following SQL code:

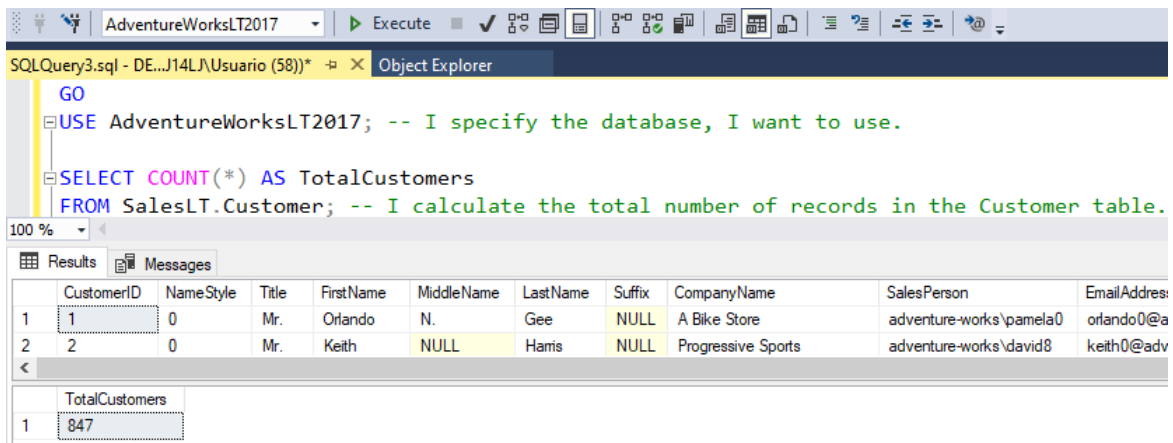
```
SELECT TOP 20 *
FROM SalesLT.Customer; -- Retrieve the first 20 records from the Customer table
```

The Results pane below shows the first 20 records of the SalesLT.Customer table. The columns are: CustomerID, NameStyle, Title, FirstName, MiddleName, LastName, Suffix, CompanyName, SalesPerson, and EmailAddress. The data is as follows:

| CustomerID | NameStyle | Title | FirstName | MiddleName | LastName | Suffix | CompanyName | SalesPerson | EmailAddress |
|------------|-----------|-------|-------------|------------|------------|--------|----------------------|---------------------------|--------------------------------|
| 1 | 0 | Mr. | Orlando | N. | Gee | NULL | A Bike Store | adventure-works\pamela0 | orlando0@adventure-works.com |
| 2 | 0 | Mr. | Keith | NULL | Harris | NULL | Progressive Sports | adventure-works\david8 | keith0@adventure-works.com |
| 3 | 0 | Ms. | Donna | F. | Carreras | NULL | Advanced Bike Com. | adventure-works\jillia... | donna0@adventure-works.com |
| 4 | 0 | Ms. | Janet | M. | Gates | NULL | Modular Cycle Sys... | adventure-works\jillia... | janet1@adventure-works.com |
| 5 | 0 | Mr. | Lucy | NULL | Harrington | NULL | Metropolitan Spor... | adventure-works\shu0 | lucy0@adventure-works.com |
| 6 | 0 | Ms. | Rosmarie | J. | Carroll | NULL | Aerobic Exercise ... | adventure-works\linda3 | rosmarie0@adventure-works.c... |
| 7 | 0 | Mr. | Dominic | P. | Gash | NULL | Associated Bikes | adventure-works\shu0 | dominic0@adventure-works.com |
| 8 | 0 | Ms. | Kathleen | M. | Garza | NULL | Rural Cycle Empor... | adventure-works\josé1 | kathleen0@adventure-works.c... |
| 9 | 0 | Ms. | Katherine | NULL | Harding | NULL | Sharp Bikes | adventure-works\josé1 | katherine0@adventure-works... |
| 10 | 0 | Mr. | Johnny | A. | Caprio | Jr. | Bikes and Motorbi... | adventure-works\garret... | johnny0@adventure-works.com |
| 11 | 0 | Mr. | Christopher | R. | Beck | Jr. | Bulk Discount Sto... | adventure-works\jae0 | christopher1@adventure-work... |
| 12 | 0 | Mr. | David | J. | Liu | NULL | Catalog Store | adventure-works\micha... | david20@adventure-works.com |
| 13 | 0 | Mr. | John | A. | Beaver | NULL | Center Cycle Shop | adventure-works\pamela0 | john8@adventure-works.com |
| 14 | 0 | Ms. | Jean | P. | Handley | NULL | Central Discount ... | adventure-works\david8 | jean1@adventure-works.com |
| 15 | 0 | NULL | Jinghao | NULL | Liu | NULL | Chic Department S... | adventure-works\jillia... | jinghao1@adventure-works.com |
| 16 | 0 | Ms. | Linda | E. | Burnett | NULL | Travel Systems | adventure-works\jillia... | linda4@adventure-works.com |
| 17 | 0 | Mr. | Kevin | NULL | Hanif | NULL | Bike World | adventure-works\shu0 | kevin0@adventure-works.com |

b. Realiza una consulta para calcula el número total en la tabla `SalesLT.Customer`.

Imagen # 3. Microsoft SQL Server Management Studio.

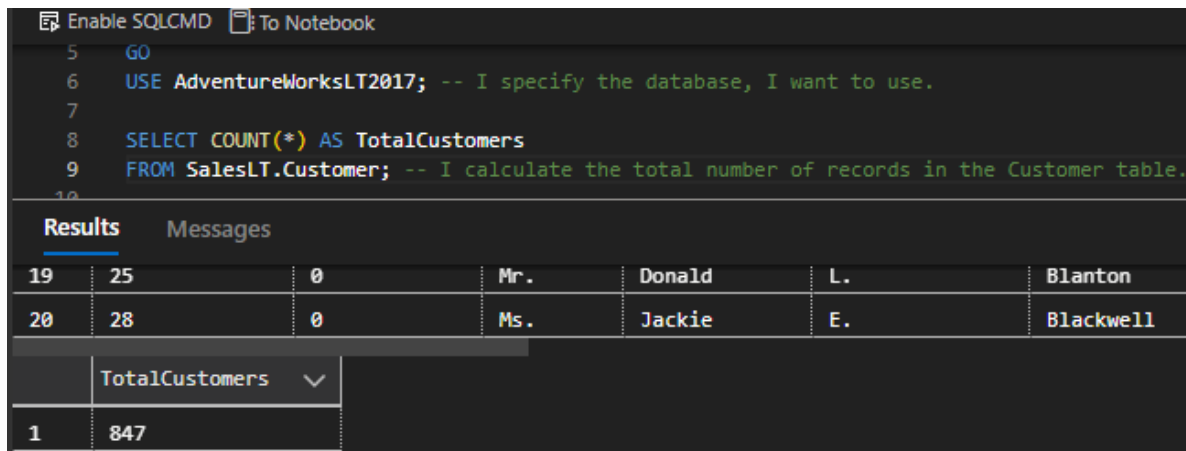


```
GO
USE AdventureWorksLT2017; -- I specify the database, I want to use.
SELECT COUNT(*) AS TotalCustomers
FROM SalesLT.Customer; -- I calculate the total number of records in the Customer table.
```

| CustomerID | NameStyle | Title | FirstName | MiddleName | LastName | Suffix | CompanyName | SalesPerson | EmailAddress |
|------------|-----------|-------|-----------|------------|----------|--------|--------------------|-------------------------|--------------|
| 1 | 0 | Mr. | Orlando | N. | Gee | NULL | A Bike Store | adventure-works\pamela0 | orlando0@a |
| 2 | 0 | Mr. | Keith | NULL | Hamis | NULL | Progressive Sports | adventure-works\david8 | keith0@adv |

| TotalCustomers |
|----------------|
| 847 |

Imagen # 4. Azure Data Studio.



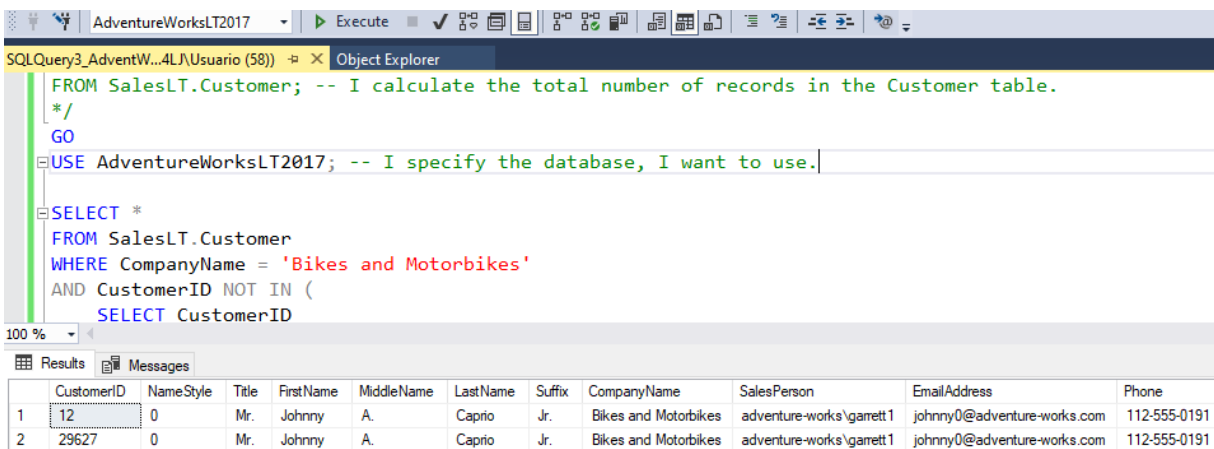
```
GO
USE AdventureWorksLT2017; -- I specify the database, I want to use.
SELECT COUNT(*) AS TotalCustomers
FROM SalesLT.Customer; -- I calculate the total number of records in the Customer table.
```

| CustomerID | NameStyle | Title | FirstName | MiddleName | LastName | Suffix | CompanyName | SalesPerson | EmailAddress |
|------------|-----------|-------|-----------|------------|-----------|--------|-------------|-------------|--------------|
| 19 | 0 | Mr. | Donald | L. | Blanton | | | | |
| 20 | 0 | Ms. | Jackie | E. | Blackwell | | | | |

| TotalCustomers |
|----------------|
| 847 |

c. Realiza una consulta para mostrar los Customer que pertenecen a la compañía `Bikes and Motorbikes`.

Imagen # 5. Microsoft SQL Server Management Studio.



```
GO
USE AdventureWorksLT2017; -- I specify the database, I want to use.
SELECT *
FROM SalesLT.Customer
WHERE CompanyName = 'Bikes and Motorbikes'
AND CustomerID NOT IN (
    SELECT CustomerID
    FROM SalesLT.Customer
    WHERE CompanyName = 'Bikes and Motorbikes'
)
```

| CustomerID | NameStyle | Title | FirstName | MiddleName | LastName | Suffix | CompanyName | SalesPerson | EmailAddress | Phone |
|------------|-----------|-------|-----------|------------|----------|--------|----------------------|--------------------------|-----------------------------|--------------|
| 12 | 0 | Mr. | Johnny | A. | Caprio | Jr. | Bikes and Motorbikes | adventure-works\garrett1 | johnny0@adventure-works.com | 112-555-0191 |
| 29627 | 0 | Mr. | Johnny | A. | Caprio | Jr. | Bikes and Motorbikes | adventure-works\garrett1 | johnny0@adventure-works.com | 112-555-0191 |

Imagen # 6. Azure Data Studio.

```

14 USE AdventureworksLT2017; -- Specify the database context
15
16 SELECT *
17 FROM SalesLT.Customer
18 WHERE CompanyName = 'Bikes and Motorbikes'
19 AND CustomerID NOT IN (
20     SELECT CustomerID
21     FROM SalesLT.Customer
22     WHERE CompanyName <> 'Bikes and Motorbikes');

```

| | CustomerID | NameStyle | Title | FirstName | MiddleName | LastName | Suffix | CompanyName | SalesPerson | EmailAddress | Photo |
|---|------------|-----------|-------|-----------|------------|----------|--------|----------------------|--------------------------|-----------------------------|-------|
| 1 | 12 | 0 | Mr. | Johnny | A. | Caprio | Jr. | Bikes and Motorbikes | adventure-works\garrett1 | johnny0@adventure-works.com | 11: |
| 2 | 29627 | 0 | Mr. | Johnny | A. | Caprio | Jr. | Bikes and Motorbikes | adventure-works\garrett1 | johnny0@adventure-works.com | 11: |

d. Realiza una consulta Distintiva por el Título del Customer y que muestre el nombre del título.

Imagen # 7. Microsoft SQL Server Management Studio.

```

SELECT DISTINCT
    CustomerID, Title, FirstName, MiddleName, LastName, CompanyName
FROM
    SalesLT.Customer;

```

| | CustomerID | Title | FirstName | MiddleName | LastName | CompanyName |
|----|------------|-------|-------------|------------|------------|----------------------------|
| 1 | 1 | Mr. | Orlando | N. | Gee | A Bike Store |
| 2 | 2 | Mr. | Keith | NULL | Harris | Progressive Sports |
| 3 | 3 | Ms. | Donna | F. | Carreras | Advanced Bike Components |
| 4 | 4 | Ms. | Janet | M. | Gates | Modular Cycle Systems |
| 5 | 5 | Mr. | Lucy | NULL | Harrington | Metropolitan Sports Supply |
| 6 | 6 | Ms. | Rosmarie | J. | Carroll | Aerobic Exercise Company |
| 7 | 7 | Mr. | Dominic | P. | Gash | Associated Bikes |
| 8 | 10 | Ms. | Kathleen | M. | Garza | Rural Cycle Emporium |
| 9 | 11 | Ms. | Katherine | NULL | Harding | Sharp Bikes |
| 10 | 12 | Mr. | Johnny | A. | Caprio | Bikes and Motorbikes |
| 11 | 16 | Mr. | Christopher | R. | Beck | Bulk Discount Store |
| 12 | 18 | Mr. | David | J. | Liu | Catalog Store |
| 13 | 19 | Mr. | John | A. | Beaver | Center Cycle Shop |
| 14 | 20 | Ms. | Jean | P. | Handley | Central Discount Store |
| 15 | 21 | N... | Jinghao | NULL | Liu | Chic Department Stores |
| 16 | 22 | Ms. | Linda | E. | Bumett | Travel Systems |
| 17 | 23 | Mr. | Kerim | NULL | Hanif | Bike World |
| 18 | 24 | Mr. | Kevin | NULL | Liu | Eastside Department Store |
| 19 | 25 | Mr. | Donald | L. | Blanton | Coalition Bike Company |
| 20 | 28 | Ms. | Jackie | E. | Blackwell | Commuter Bicycle Store |

Imagen # 8. Azure Data Studio.

```

24 USE AdventureworksLT2017; -- I specify the database, I want to use.
25 SELECT DISTINCT CustomerID, Title, FirstName, MiddleName, LastName, CompanyName
26 FROM SalesLT.Customer;

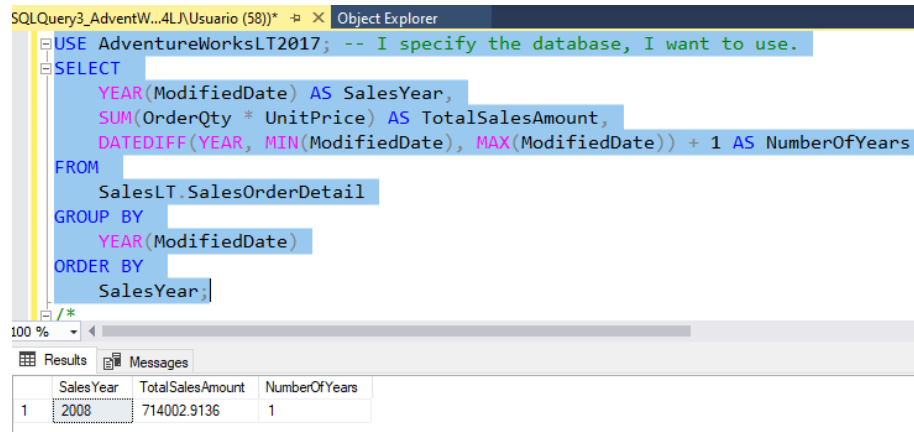
```

| | CustomerID | Title | FirstName | MiddleName | LastName | CompanyName |
|---|------------|-------|-----------|------------|------------|----------------------------|
| 1 | 1 | Mr. | Orlando | N. | Gee | A Bike Store |
| 2 | 2 | Mr. | Keith | NULL | Harris | Progressive Sports |
| 3 | 3 | Ms. | Donna | F. | Carreras | Advanced Bike Components |
| 4 | 4 | Ms. | Janet | M. | Gates | Modular Cycle Systems |
| 5 | 5 | Mr. | Lucy | NULL | Harrington | Metropolitan Sports Supply |
| 6 | 6 | Ms. | Rosmarie | J. | Carroll | Aerobic Exercise Company |

2. Análisis de Ventas: Tabla: “SalesLT.SalesOrderDetail”

a. Realiza una consulta donde obtengas el monto total de ventas realizadas por año.

Imagen # 9. Microsoft SQL Server Management Studio.



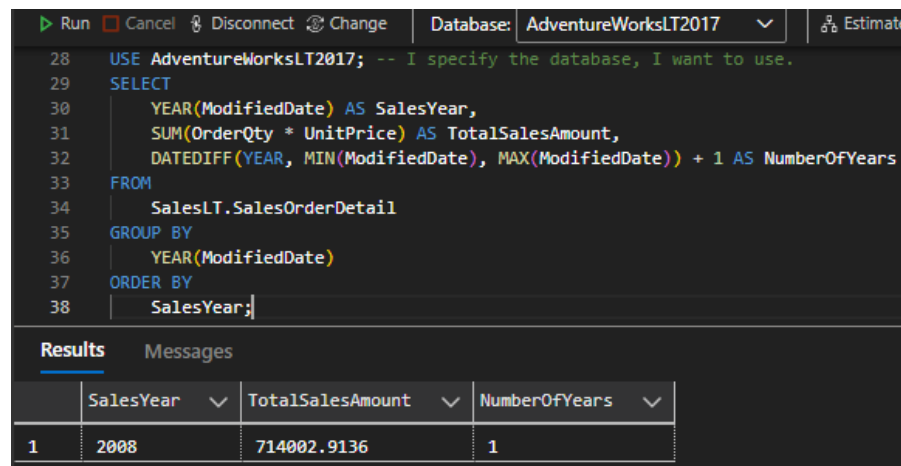
The screenshot shows the SQL Server Enterprise Manager interface. The 'SQL Query' window displays the following query:

```
USE AdventureWorksLT2017; -- I specify the database, I want to use.
SELECT
    YEAR(ModifiedDate) AS SalesYear,
    SUM(OrderQty * UnitPrice) AS TotalSalesAmount,
    DATEDIFF(YEAR, MIN(ModifiedDate), MAX(ModifiedDate)) + 1 AS NumberOfYears
FROM
    SalesLT.SalesOrderDetail
GROUP BY
    YEAR(ModifiedDate)
ORDER BY
    SalesYear;
```

The 'Results' pane shows the following data:

| | SalesYear | TotalSalesAmount | NumberOfYears |
|---|-----------|------------------|---------------|
| 1 | 2008 | 714002.9136 | 1 |

Imagen # 10. Azure Data Studio.



The screenshot shows the Azure Data Studio interface. The 'SQL Query' window displays the following query:

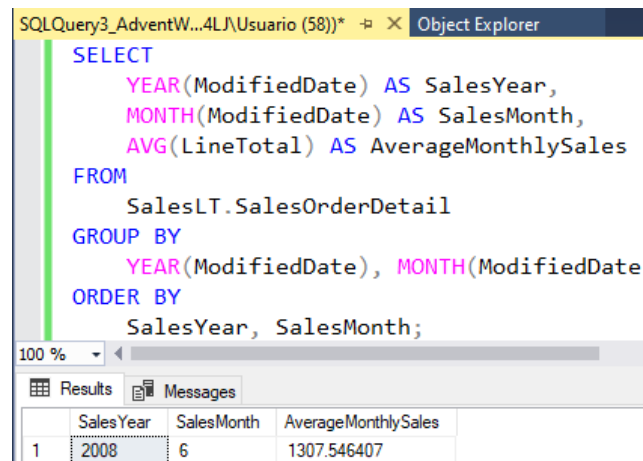
```
USE AdventureWorksLT2017; -- I specify the database, I want to use.
SELECT
    YEAR(ModifiedDate) AS SalesYear,
    SUM(OrderQty * UnitPrice) AS TotalSalesAmount,
    DATEDIFF(YEAR, MIN(ModifiedDate), MAX(ModifiedDate)) + 1 AS NumberOfYears
FROM
    SalesLT.SalesOrderDetail
GROUP BY
    YEAR(ModifiedDate)
ORDER BY
    SalesYear;
```

The 'Results' pane shows the following data:

| | SalesYear | TotalSalesAmount | NumberOfYears |
|---|-----------|------------------|---------------|
| 1 | 2008 | 714002.9136 | 1 |

b. Realiza una consulta que calcule el promedio de ventas mensuales. “Los datos solo muestran ventas están en solo mes el sexto mes”.

Imagen # 11. Microsoft SQL Server Management Studio.



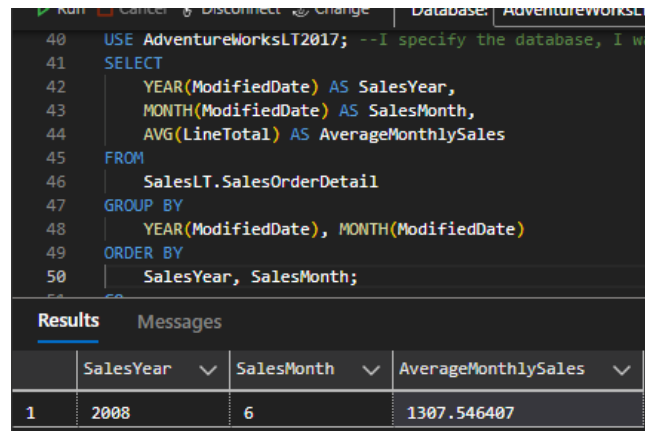
The screenshot shows the SQL Server Enterprise Manager interface. The 'SQL Query' window displays the following query:

```
SELECT
    YEAR(ModifiedDate) AS SalesYear,
    MONTH(ModifiedDate) AS SalesMonth,
    AVG(LineTotal) AS AverageMonthlySales
FROM
    SalesLT.SalesOrderDetail
GROUP BY
    YEAR(ModifiedDate), MONTH(ModifiedDate)
ORDER BY
    SalesYear, SalesMonth;
```

The 'Results' pane shows the following data:

| | SalesYear | SalesMonth | AverageMonthlySales |
|---|-----------|------------|---------------------|
| 1 | 2008 | 6 | 1307.546407 |

Imagen # 12. Azure Data Studio.



The screenshot shows the Azure Data Studio interface with a SQL query in the editor and its results in the Results pane. The query is a SELECT statement that filters data by year and month and calculates the average monthly sales.

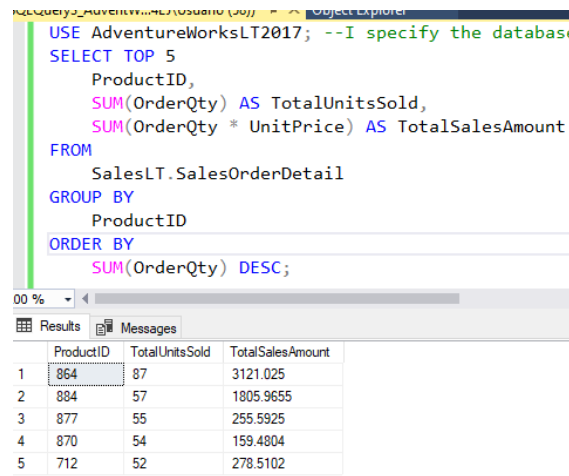
```
USE AdventureWorksLT2017; --I specify the database, I want
SELECT
    YEAR(ModifiedDate) AS SalesYear,
    MONTH(ModifiedDate) AS SalesMonth,
    AVG(LineTotal) AS AverageMonthlySales
FROM
    SalesLT.SalesOrderDetail
GROUP BY
    YEAR(ModifiedDate), MONTH(ModifiedDate)
ORDER BY
    SalesYear, SalesMonth;
```

| | SalesYear | SalesMonth | AverageMonthlySales |
|---|-----------|------------|---------------------|
| 1 | 2008 | 6 | 1307.546407 |

3. Análisis de Productos: Tablas: SalesOrderDetail, ProductCategory

a. Realiza una consulta donde encuentre los 5 productos más vendidos.

Imagen # 13. Microsoft SQL Server Management Studio.

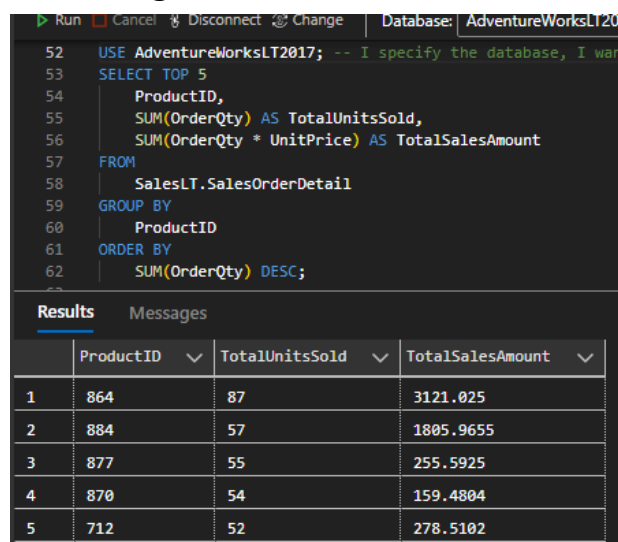


The screenshot shows the Microsoft SQL Server Management Studio interface with a SQL query in the editor and its results in the Results pane. The query is a SELECT statement that finds the top 5 products by total units sold.

```
USE AdventureWorksLT2017; --I specify the database
SELECT TOP 5
    ProductID,
    SUM(OrderQty) AS TotalUnitsSold,
    SUM(OrderQty * UnitPrice) AS TotalSalesAmount
FROM
    SalesLT.SalesOrderDetail
GROUP BY
    ProductID
ORDER BY
    SUM(OrderQty) DESC;
```

| | ProductID | TotalUnitsSold | TotalSalesAmount |
|---|-----------|----------------|------------------|
| 1 | 864 | 87 | 3121.025 |
| 2 | 884 | 57 | 1805.9655 |
| 3 | 877 | 55 | 255.5925 |
| 4 | 870 | 54 | 159.4804 |
| 5 | 712 | 52 | 278.5102 |

Imagen # 14. Azure Data Studio.



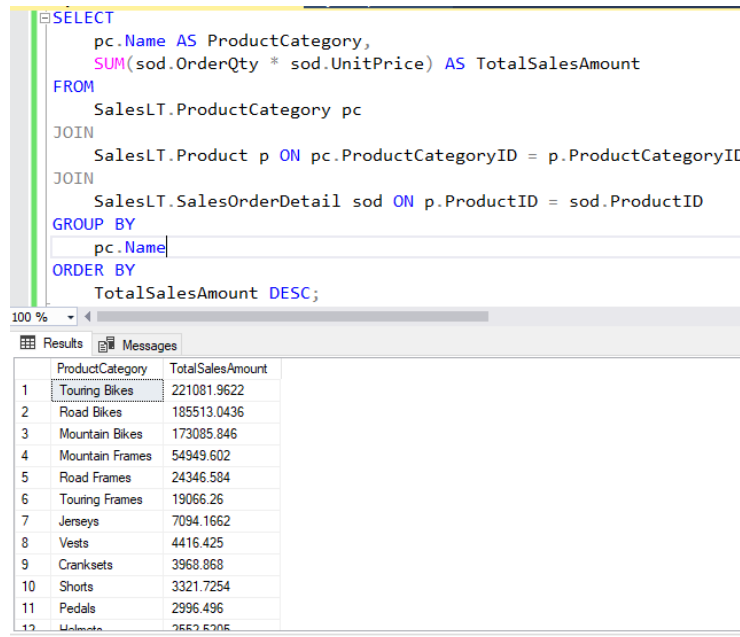
The screenshot shows the Azure Data Studio interface with a SQL query in the editor and its results in the Results pane. The query is a SELECT statement that finds the top 5 products by total units sold.

```
USE AdventureWorksLT2017; -- I specify the database, I want
SELECT TOP 5
    ProductID,
    SUM(OrderQty) AS TotalUnitsSold,
    SUM(OrderQty * UnitPrice) AS TotalSalesAmount
FROM
    SalesLT.SalesOrderDetail
GROUP BY
    ProductID
ORDER BY
    SUM(OrderQty) DESC;
```

| | ProductID | TotalUnitsSold | TotalSalesAmount |
|---|-----------|----------------|------------------|
| 1 | 864 | 87 | 3121.025 |
| 2 | 884 | 57 | 1805.9655 |
| 3 | 877 | 55 | 255.5925 |
| 4 | 870 | 54 | 159.4804 |
| 5 | 712 | 52 | 278.5102 |

b. Realiza una consulta que calcule el total de ventas para cada categoría de producto.

Imagen # 15. Microsoft SQL Server Management Studio.



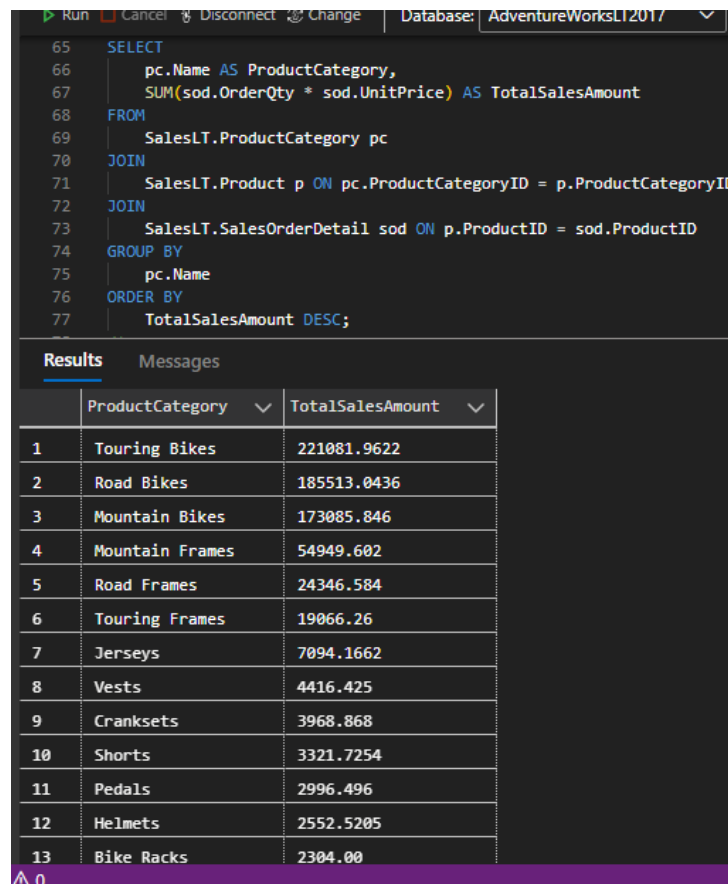
The screenshot shows the SQL Server Enterprise Manager interface. The 'Query Editor' window displays a SQL query that calculates the total sales amount for each product category. The query uses a series of JOINs to connect the SalesLT.ProductCategory, SalesLT.Product, and SalesLT.SalesOrderDetail tables. The results are grouped by ProductCategory and ordered by TotalSalesAmount in descending order.

```
SELECT
    pc.Name AS ProductCategory,
    SUM(sod.OrderQty * sod.UnitPrice) AS TotalSalesAmount
FROM
    SalesLT.ProductCategory pc
JOIN
    SalesLT.Product p ON pc.ProductCategoryID = p.ProductCategoryID
JOIN
    SalesLT.SalesOrderDetail sod ON p.ProductID = sod.ProductID
GROUP BY
    pc.Name
ORDER BY
    TotalSalesAmount DESC;
```

The 'Results' window shows the following data:

| | ProductCategory | TotalSalesAmount |
|----|-----------------|------------------|
| 1 | Touring Bikes | 221081.9622 |
| 2 | Road Bikes | 185513.0436 |
| 3 | Mountain Bikes | 173085.846 |
| 4 | Mountain Frames | 54949.602 |
| 5 | Road Frames | 24346.584 |
| 6 | Touring Frames | 19066.26 |
| 7 | Jerseys | 7094.1662 |
| 8 | Vests | 4416.425 |
| 9 | Cranksets | 3968.868 |
| 10 | Shorts | 3321.7254 |
| 11 | Pedals | 2996.496 |
| 12 | Helmets | 2552.5205 |
| 13 | Bike Racks | 2304.00 |

Imagen # 16. Azure Data Studio.



The screenshot shows the Azure Data Studio interface. The 'Query Editor' window displays the same SQL query as in Image 15. The 'Database' dropdown is set to 'AdventureWorksLT2017'. The 'Results' window shows the same data as in Image 15.

```
SELECT
    pc.Name AS ProductCategory,
    SUM(sod.OrderQty * sod.UnitPrice) AS TotalSalesAmount
FROM
    SalesLT.ProductCategory pc
JOIN
    SalesLT.Product p ON pc.ProductCategoryID = p.ProductCategoryID
JOIN
    SalesLT.SalesOrderDetail sod ON p.ProductID = sod.ProductID
GROUP BY
    pc.Name
ORDER BY
    TotalSalesAmount DESC;
```

The 'Results' window shows the following data:

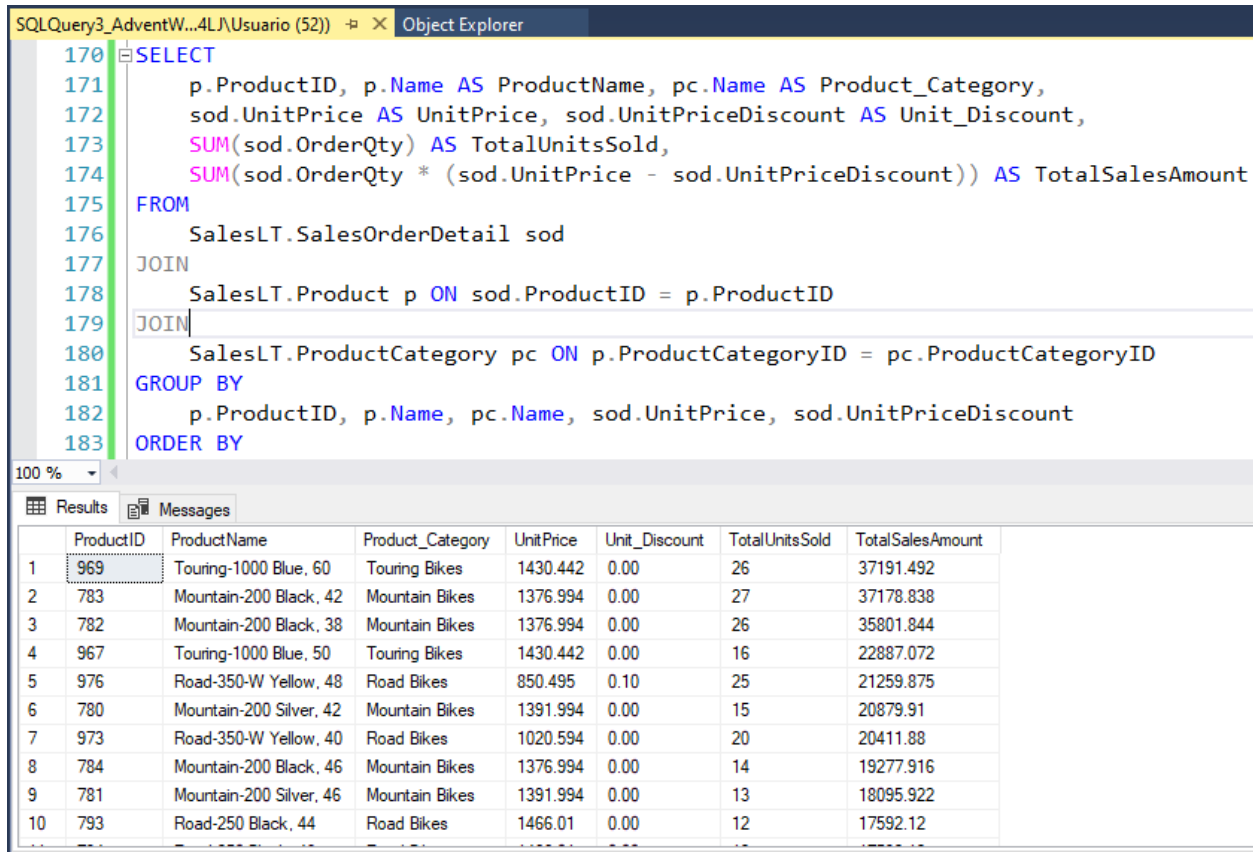
| | ProductCategory | TotalSalesAmount |
|----|-----------------|------------------|
| 1 | Touring Bikes | 221081.9622 |
| 2 | Road Bikes | 185513.0436 |
| 3 | Mountain Bikes | 173085.846 |
| 4 | Mountain Frames | 54949.602 |
| 5 | Road Frames | 24346.584 |
| 6 | Touring Frames | 19066.26 |
| 7 | Jerseys | 7094.1662 |
| 8 | Vests | 4416.425 |
| 9 | Cranksets | 3968.868 |
| 10 | Shorts | 3321.7254 |
| 11 | Pedals | 2996.496 |
| 12 | Helmets | 2552.5205 |
| 13 | Bike Racks | 2304.00 |

Pregunta de negocio extra generada para el grupo.

Haciendo secuencia generada por las preguntas a. y b.

- ❖ De acuerdo a la base de datos proporcionada `AdventureWorksLT2019`. Averiguar el monto total de ventas de cada producto del Bike Shop, incluyendo el descuento si es aplicable al producto, la cantidad unitaria vendidas, eh indicar los resultados con el producto que más ingreso \$ género por su venta.

Imagen # 17. Microsoft SQL Server Management Studio.



The screenshot displays the Microsoft SQL Server Management Studio interface. The top pane shows a SQL query in the 'SQLQuery3_AdventW...4LJ\Usuario (52)' window. The query is a SELECT statement that joins the SalesLT.Product, SalesLT.ProductCategory, and SalesLT.SalesOrderDetail tables. It calculates the total units sold and the total sales amount for each product, considering unit price and discounts. The results are ordered by product ID.

The bottom pane shows the 'Results' tab with a table containing 10 rows of data. The columns are ProductID, ProductName, Product_Category, UnitPrice, Unit_Discount, TotalUnitsSold, and TotalSalesAmount. The first row is highlighted.

| | ProductID | ProductName | Product_Category | UnitPrice | Unit_Discount | TotalUnitsSold | TotalSalesAmount |
|----|-----------|-------------------------|------------------|-----------|---------------|----------------|------------------|
| 1 | 969 | Touring-1000 Blue, 60 | Touring Bikes | 1430.442 | 0.00 | 26 | 37191.492 |
| 2 | 783 | Mountain-200 Black, 42 | Mountain Bikes | 1376.994 | 0.00 | 27 | 37178.838 |
| 3 | 782 | Mountain-200 Black, 38 | Mountain Bikes | 1376.994 | 0.00 | 26 | 35801.844 |
| 4 | 967 | Touring-1000 Blue, 50 | Touring Bikes | 1430.442 | 0.00 | 16 | 22887.072 |
| 5 | 976 | Road-350-W Yellow, 48 | Road Bikes | 850.495 | 0.10 | 25 | 21259.875 |
| 6 | 780 | Mountain-200 Silver, 42 | Mountain Bikes | 1391.994 | 0.00 | 15 | 20879.91 |
| 7 | 973 | Road-350-W Yellow, 40 | Road Bikes | 1020.594 | 0.00 | 20 | 20411.88 |
| 8 | 784 | Mountain-200 Black, 46 | Mountain Bikes | 1376.994 | 0.00 | 14 | 19277.916 |
| 9 | 781 | Mountain-200 Silver, 46 | Mountain Bikes | 1391.994 | 0.00 | 13 | 18095.922 |
| 10 | 793 | Road-250 Black, 44 | Road Bikes | 1466.01 | 0.00 | 12 | 17592.12 |

Imagen # 18. Azure Data Studio.

```

187 SELECT
188     p.ProductID, p.Name AS ProductName, pc.Name AS Product_Category, sod.UnitPrice AS UnitPrice, sod.UnitPriceDiscount AS Unit_Discount,
189     SUM(sod.OrderQty) AS TotalUnitsSold,
190     SUM(sod.OrderQty * (sod.UnitPrice - sod.UnitPriceDiscount)) AS TotalSalesAmount
191 FROM
192     SalesLT.SalesOrderDetail sod
193 JOIN
194     SalesLT.Product p ON sod.ProductID = p.ProductID
195 JOIN
196     SalesLT.ProductCategory pc ON p.ProductCategoryID = pc.ProductCategoryID
197 GROUP BY
198     p.ProductID, p.Name, pc.Name, sod.UnitPrice, sod.UnitPriceDiscount
199 ORDER BY
200     TotalSalesAmount DESC;

```

| | ProductID | ProductName | Product_Category | UnitPrice | Unit_Discount | TotalUnitsSold | TotalSalesAmount |
|---|-----------|-------------------------|------------------|-----------|---------------|----------------|------------------|
| 1 | 969 | Touring-1000 Blue, 60 | Touring Bikes | 1430.442 | 0.00 | 26 | 37191.492 |
| 2 | 783 | Mountain-200 Black, 42 | Mountain Bikes | 1376.994 | 0.00 | 27 | 37178.838 |
| 3 | 782 | Mountain-200 Black, 38 | Mountain Bikes | 1376.994 | 0.00 | 26 | 35801.844 |
| 4 | 967 | Touring-1000 Blue, 50 | Touring Bikes | 1430.442 | 0.00 | 16 | 22887.072 |
| 5 | 976 | Road-350-W Yellow, 48 | Road Bikes | 850.495 | 0.10 | 25 | 21259.875 |
| 6 | 780 | Mountain-200 Silver, 42 | Mountain Bikes | 1391.994 | 0.00 | 15 | 20879.91 |
| 7 | 973 | Road-350-W Yellow, 40 | Road Bikes | 1020.594 | 0.00 | 20 | 20411.88 |
| 8 | 784 | Mountain-200 Black, 46 | Mountain Bikes | 1376.994 | 0.00 | 14 | 19277.916 |
| 9 | 781 | Mountain-200 Silver, 46 | Mountain Bikes | 1391.994 | 0.00 | 13 | 18095.922 |

Presentado Por Javier A. S. Coronado. El 12-marzo-2024 Bogotá, Colombia.

Documento virtual compartido en Google Drive.

En Actividades durante el BootCamp.

Para el (Bootcamp): Análisis y Visualización de Datos. 1.

Por Talento Tech, el Ministerio Mintic Colombia, Cymetria, Tecnalia Colombia.

Modalidad: Virtual. Grupo 1-3 en horario: 6:00-8:00 am de lunes a viernes y sábados de 7:00-10:00 am.