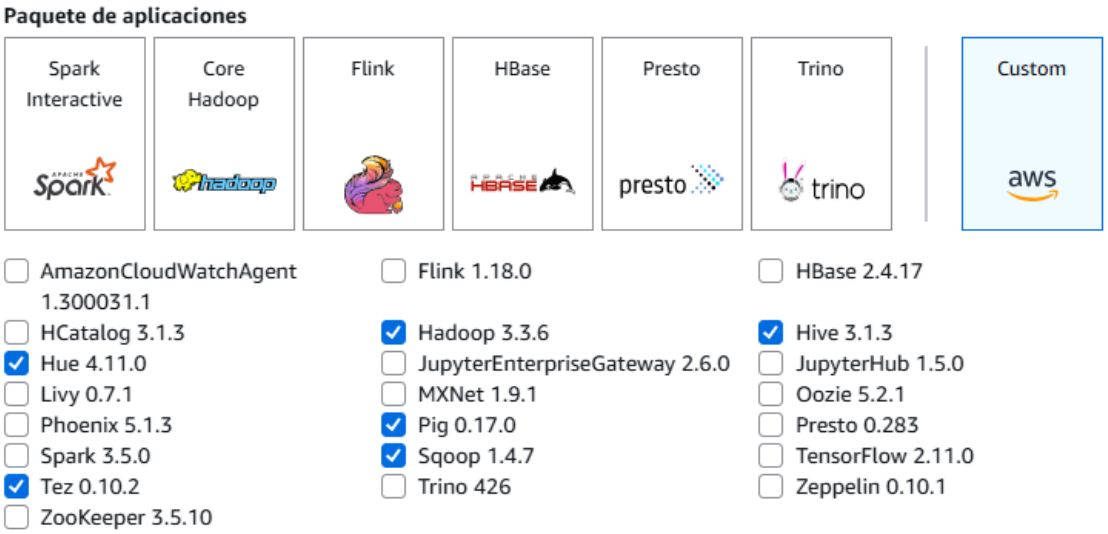
Análisis sentimientos

1) APARTADO A

1) Siguiendo los pasos que se explican en el tema, crea un clúster Hadoop EMR con 1 master y dos nodos. Selecciona la opción Core Hadoop (versión 7.0.0). No te olvides de seleccionar Sqoop, ya que lo utilizaremos en las prácticas siguientes.

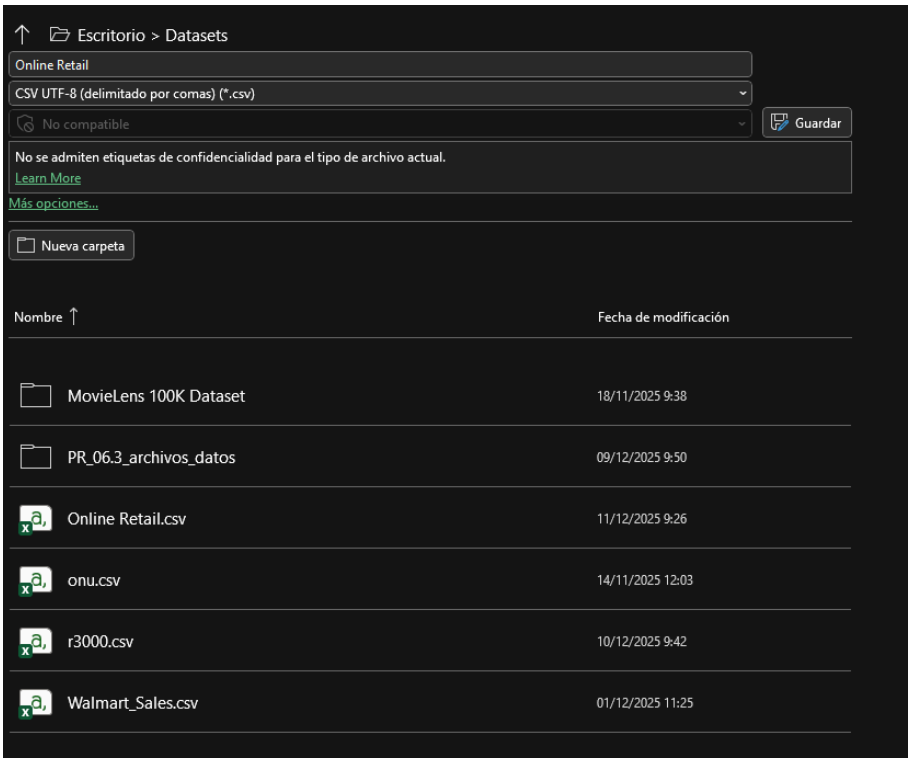


Conexión

2) APARTADO B

1) Viene en formato Excel. Desde el propio Excel puedes convertirlo a formato ’csv’.

Exportamos



2) Crea una carpeta con tu nombre en el directorio user del HDFS de EMR.

```
[hadoop@ip-172-31-77-106 ~]$ hdfs dfs -mkdir /user/pablo
[hadoop@ip-172-31-77-106 ~]$ hdfs dfs -ls /user
Found 7 items
drwxrwxrwx   - hadoop hdfsadmingroup          0 2025-12-11 08:07 /user/hadoop
drwxr-xr-x   - mapred mapred                  0 2025-12-11 08:07 /user/history
drwxrwxrwx   - hdfs   hdfsadmingroup          0 2025-12-11 08:07 /user/hive
drwxrwxrwx   - hue    hue                     0 2025-12-11 08:07 /user/hue
drwxrwxrwx   - oozie  oozie                   0 2025-12-11 08:09 /user/oozie
drwxr-xr-x   - hadoop hdfsadmingroup          0 2025-12-11 08:33 /user/pablo
drwxrwxrwx   - root   hdfsadmingroup          0 2025-12-11 08:07 /user/root
```

3) Crea dentro de él una carpeta llamada ventas y sube a ella el ’csv’ que obtuviste anteriormente.

```
[hadoop@ip-172-31-77-106 ~]$ hdfs dfs -ls /user/pablo
Found 1 items
drwxr-xr-x   - hadoop hdfsadmingroup          0 2025-12-11 08:33 /user/pablo/ventas
```

Lo subimos a la machine

```
PS C:\Users\Mañana> scp -i "C:\Users\Mañana\clave_Ubuntu_MySql.pem" "C:\Users\Mañana\Desktop\Datasets\Online Retail.csv"
 hadoop@3.237.13.170:/home/hadoop
Online Retail.csv                                     100%   44MB   9.0MB/s   00:04
PS C:\Users\Mañana>
```

Lo subimos a nuestra carpeta personal de hdfs.

```
[hadoop@ip-172-31-67-169 ~]$ hdfs dfs -ls /user/pablo
Found 1 items
-rw-r--r--   1 hadoop hdfsadmingroup   46079991 2025-12-15 07:55 /user/pablo/OnlineRetail.csv
```

3) APARTADO C

1) Usando Pig

i. Cargar los datos del dataset en PIG

```
raw_data =
LOAD '/user/pablo/OnlineRetail.csv'
USING PigStorage(';')
AS (
    InvoiceNo:chararray,
    StockCode:chararray,
    Description:chararray,
    Quantity:chararray,
    InvoiceDate:chararray,
    UnitPrice:chararray,
    CustomerID:chararray,
    Country:chararray
);

data =
FILTER raw_data BY InvoiceNo != 'InvoiceNo';

sample = LIMIT data 10;
DUMP sample;
```

2) Consultas:

i. ¿Cuántos registros tiene la tabla?

```
raw_data =
LOAD '/user/pablo/OnlineRetail.csv'
USING PigStorage(';')
AS (
    InvoiceNo:chararray,
    StockCode:chararray,
    Description:chararray,
    Quantity:chararray,
    InvoiceDate:chararray,
    UnitPrice:chararray,
    CustomerID:chararray,
    Country:chararray
);

data =
FILTER raw_data BY InvoiceNo != 'InvoiceNo';
```

```
group_all = GROUP data ALL;

count_records = FOREACH group_all GENERATE COUNT(data) AS total_registros;

STORE count_records INTO '/user/pablo/output_count' USING PigStorage(',');
```

```
[hadoop@ip-172-31-67-169 consultas]$ hdfs dfs -cat /user/pablo/output_count/part-v001-o000-r-00000
541909
```

ii. Mostrar registros con cantidades mayores o iguales a cero.

```
raw_data =
LOAD '/user/pablo/OnlineRetail.csv'
USING PigStorage(';')
AS (
    InvoiceNo:chararray,
    StockCode:chararray,
    Description:chararray,
    Quantity:chararray,
    InvoiceDate:chararray,
    UnitPrice:chararray,
    CustomerID:chararray,
    Country:chararray
);

data =
FILTER raw_data BY InvoiceNo != 'InvoiceNo';

data_qty =
FILTER data BY (int)Quantity >= 0;

STORE data_qty INTO '/user/pablo/output_quantity_ge_zero' USING
PigStorage(';');
```

```
[hadoop@ip-172-31-67-169 consultas]$ hdfs dfs -cat /user/pablo/output_quantity_ge_zero/part* | head
536365;85123A;WHITE HANGING HEART T-LIGHT HOLDER;6;01/12/2010 8:26;2,55;17850;United Kingdom
536365;71053;WHITE METAL LANTERN;6;01/12/2010 8:26;3,39;17850;United Kingdom
536365;84406B;CREAM CUPID HEARTS COAT HANGER;8;01/12/2010 8:26;2,75;17850;United Kingdom
536365;84029G;KNITTED UNION FLAG HOT WATER BOTTLE;6;01/12/2010 8:26;3,39;17850;United Kingdom
536365;84029E;RED WOOLLY HOTTIE WHITE HEART.;6;01/12/2010 8:26;3,39;17850;United Kingdom
536365;22752;SET 7 BABUSHKA NESTING BOXES;2;01/12/2010 8:26;7,65;17850;United Kingdom
536365;21730;GLASS STAR FROSTED T-LIGHT HOLDER;6;01/12/2010 8:26;4,25;17850;United Kingdom
536366;22633;HAND WARMER UNION JACK;6;01/12/2010 8:28;1,85;17850;United Kingdom
536366;22632;HAND WARMER RED POLKA DOT;6;01/12/2010 8:28;1,85;17850;United Kingdom
536367;84879;ASSORTED COLOUR BIRD ORNAMENT;32;01/12/2010 8:34;1,69;13047;United Kingdom
```

iii. A partir de la consulta anterior, mostrar registros precio mayor a cero

```
raw_data =
LOAD '/user/pablo/OnlineRetail.csv'
USING PigStorage(';')
AS (
    InvoiceNo:chararray,
    StockCode:chararray,
    Description:chararray,
    Quantity:chararray,
    InvoiceDate:chararray,
```

```
    UnitPrice:chararray,
    CustomerID:chararray,
    Country:chararray
);

data =
FILTER raw_data BY InvoiceNo != 'InvoiceNo';

data_qty =
FILTER data BY (int)Quantity >= 0;

data_price =
FILTER data_qty BY (double)REPLACE(UnitPrice, ',', '.') > 0.0;

STORE data_price INTO '/user/pablo/output_quantity_ge_zero_price_gt_zero'
USING PigStorage(';');
```

```
[hadoop@ip-172-31-67-169 consultas]$ hdfs dfs -cat /user/pablo/output_quantity_ge_zero_price_gt_zero/part* | head
536365;85123A;WHITE HANGING HEART T-LIGHT HOLDER;6;01/12/2010 8:26;2,55;17850;United Kingdom
536365;71053;WHITE METAL LANTERN;6;01/12/2010 8:26;3,39;17850;United Kingdom
536365;84406B;CREAM CUPID HEARTS COAT HANGER;8;01/12/2010 8:26;2,75;17850;United Kingdom
536365;84029G;KNITTED UNION FLAG HOT WATER BOTTLE;6;01/12/2010 8:26;3,39;17850;United Kingdom
536365;84029E;RED WOOLLY HOTTIE WHITE HEART.;6;01/12/2010 8:26;3,39;17850;United Kingdom
536365;22752;SET 7 BABUSHKA NESTING BOXES;2;01/12/2010 8:26;7,65;17850;United Kingdom
536365;21730;GLASS STAR FROSTED T-LIGHT HOLDER;6;01/12/2010 8:26;4,25;17850;United Kingdom
536366;22633;HAND WARMER UNION JACK;6;01/12/2010 8:28;1,85;17850;United Kingdom
536366;22632;HAND WARMER RED POLKA DOT;6;01/12/2010 8:28;1,85;17850;United Kingdom
536367;84879;ASSORTED COLOUR BIRD ORNAMENT;32;01/12/2010 8:34;1,69;13047;United Kingdom
```

iv. A partir de la consulta anterior, mostrar solamente los registros con algún valor en el campo CustomerID.

```
raw_data =
LOAD '/user/pablo/OnlineRetail.csv'
USING PigStorage(';')
AS (
    InvoiceNo:chararray,
    StockCode:chararray,
    Description:chararray,
    Quantity:chararray,
    InvoiceDate:chararray,
    UnitPrice:chararray,
    CustomerID:chararray,
    Country:chararray
);

data =
FILTER raw_data BY InvoiceNo != 'InvoiceNo';

data_qty =
FILTER data BY (int)Quantity >= 0;

data_price =
FILTER data_qty BY (double)REPLACE(UnitPrice, ',', '.') > 0.0;

data_customer =
```

```
FILTER data_price BY CustomerID IS NOT NULL AND CustomerID != '';

STORE data_customer INTO '/user/pablo/output_quantity_price_customerid' USING
PigStorage(';');
```

```
[hadoop@ip-172-31-67-169 consultas]$ hdfs dfs -cat /user/pablo/output_quantity_price_customerid/part-* | head
536365;85123A;WHITE HANGING HEART T-LIGHT HOLDER;6;01/12/2010 8:26;2,55;17850;United Kingdom
536365;71053;WHITE METAL LANTERN;6;01/12/2010 8:26;3,39;17850;United Kingdom
536365;84406B;CREAM CUPID HEARTS COAT HANGER;8;01/12/2010 8:26;2,75;17850;United Kingdom
536365;84029G;KNITTED UNION FLAG HOT WATER BOTTLE;6;01/12/2010 8:26;3,39;17850;United Kingdom
536365;84029E;RED WOOLLY HOTTIE WHITE HEART.;6;01/12/2010 8:26;3,39;17850;United Kingdom
536365;22752;SET 7 BABUSHKA NESTING BOXES;2;01/12/2010 8:26;7,65;17850;United Kingdom
536365;21730;GLASS STAR FROSTED T-LIGHT HOLDER;6;01/12/2010 8:26;4,25;17850;United Kingdom
536366;22633;HAND WARMER UNION JACK;6;01/12/2010 8:28;1,85;17850;United Kingdom
536366;22632;HAND WARMER RED POLKA DOT;6;01/12/2010 8:28;1,85;17850;United Kingdom
536367;84879;ASSORTED COLOUR BIRD ORNAMENT;32;01/12/2010 8:34;1,69;13047;United Kingdom
```

v. ¿Cuántos registros tiene la última consulta?

```
raw_data =
LOAD '/user/pablo/OnlineRetail.csv'
USING PigStorage(';')
AS (
    InvoiceNo:chararray,
    StockCode:chararray,
    Description:chararray,
    Quantity:chararray,
    InvoiceDate:chararray,
    UnitPrice:chararray,
    CustomerID:chararray,
    Country:chararray
);

data =
FILTER raw_data BY InvoiceNo != 'InvoiceNo';

data_qty =
FILTER data BY (int)Quantity >= 0;

data_price =
FILTER data_qty BY (double)REPLACE(UnitPrice, ',', '.') > 0.0;

data_customer =
FILTER data_price BY CustomerID IS NOT NULL AND CustomerID != '';

group_all = GROUP data_customer ALL;

count_records = FOREACH group_all GENERATE COUNT(data_customer) AS
total_registros;

STORE count_records INTO '/user/pablo/output_count_quantity_price_customerid'
USING PigStorage(',');
```

```
[hadoop@ip-172-31-67-169 consultas]$ hdfs dfs -cat /user/pablo/output_count_quantity_price_customerid/part-*
397884
```

vi. Almacena la consulta final del punto 4 en un fichero llamado ventas.csv dentro de la carpeta de apartado B.

```
raw_data =
LOAD '/user/pablo/OnlineRetail.csv'
USING PigStorage(';')
AS (
    InvoiceNo:chararray,
    StockCode:chararray,
    Description:chararray,
    Quantity:chararray,
    InvoiceDate:chararray,
    UnitPrice:chararray,
    CustomerID:chararray,
    Country:chararray
);

data =
FILTER raw_data BY InvoiceNo != 'InvoiceNo';

data_qty =
FILTER data BY (int)Quantity >= 0;

data_price =
FILTER data_qty BY (double)REPLACE(UnitPrice, ',', '.') > 0.0;

data_customer =
FILTER data_price BY CustomerID IS NOT NULL AND CustomerID != '';

STORE data_customer INTO '/user/pablo/temp_ventas' USING PigStorage(';');
```

Guardamos el archivo

```
[hadoop@ip-172-31-67-169 consultas]$ hdfs dfs -cat /user/pablo/ventas.csv | head
536365;85123A;WHITE HANGING HEART T-LIGHT HOLDER;6;01/12/2010 8:26;2,55;17850;United Kingdom
536365;71053;WHITE METAL LANTERN;6;01/12/2010 8:26;3,39;17850;United Kingdom
536365;84406B;CREAM CUPID HEARTS COAT HANGER;8;01/12/2010 8:26;2,75;17850;United Kingdom
536365;84029G;KNITTED UNION FLAG HOT WATER BOTTLE;6;01/12/2010 8:26;3,39;17850;United Kingdom
536365;84029E;RED WOOLLY HOTTIE WHITE HEART.;6;01/12/2010 8:26;3,39;17850;United Kingdom
536365;22752;SET 7 BABUSHKA NESTING BOXES;2;01/12/2010 8:26;7,65;17850;United Kingdom
536365;21730;GLASS STAR FROSTED T-LIGHT HOLDER;6;01/12/2010 8:26;4,25;17850;United Kingdom
536366;22633;HAND WARMER UNION JACK;6;01/12/2010 8:28;1,85;17850;United Kingdom
536366;22632;HAND WARMER RED POLKA DOT;6;01/12/2010 8:28;1,85;17850;United Kingdom
536367;84879;ASSORTED COLOUR BIRD ORNAMENT;32;01/12/2010 8:34;1,69;13047;United Kingdom
```

4) APARTADO D

1) Crear base de datos

```
CREATE DATABASE IF NOT EXISTS retail_db;
```

2) Crear tabla externa sobre los datos RAW (CSV)

```
CREATE EXTERNAL TABLE IF NOT EXISTS retail_db.online_retail (
    InvoiceNo STRING,
    StockCode STRING,
```

```
    Description STRING,
    Quantity INT,
    InvoiceDate STRING,
    UnitPrice STRING,
    CustomerID STRING,
    Country STRING
)
ROW FORMAT DELIMITED
FIELDS TERMINATED BY ';'
STORED AS TEXTFILE
LOCATION '/user/pablo/ventas'
TBLPROPERTIES ("skip.header.line.count"="1");
```

3) Hive no maneja muy bien el formato de fecha original, conviértelo a d/M/yyyy H:mm
4) Crea la misma estructura de tabla, pero particionada por año y mes.

```
CREATE TABLE IF NOT EXISTS retail_db.online_retail_partitioned (
    InvoiceNo STRING,
    StockCode STRING,
    Description STRING,
    Quantity INT,
    InvoiceDate TIMESTAMP,
    UnitPrice DOUBLE,
    CustomerID STRING,
    Country STRING
)
PARTITIONED BY (year INT, month INT)
STORED AS PARQUET;
```

5) Inserta los registros del punto 1.2 en la tabla particionada.

Usaremos una tabla principal

```
CREATE EXTERNAL TABLE IF NOT EXISTS retail_db.ventas_minimal (
    InvoiceNo STRING,
    StockCode STRING,
    Description STRING,
    Quantity INT,
    InvoiceDate STRING,
    UnitPrice STRING,
    CustomerID STRING,
    Country STRING
)
ROW FORMAT DELIMITED
FIELDS TERMINATED BY ';'
STORED AS TEXTFILE
LOCATION '/user/pablo/ventas';
```

Ejecutamos la carga

```
INSERT INTO TABLE retail_db.online_retail_partitioned
PARTITION (year, month)
```

```
SELECT
    InvoiceNo,
    StockCode,
    Description,
    Quantity,
    from_unixtime(unix_timestamp(InvoiceDate, 'dd/MM/yyyy H:mm')) AS
InvoiceDate,
    CAST(REPLACE(UnitPrice, ',', '.') AS DOUBLE) AS UnitPrice,
    CustomerID,
    Country,
    YEAR(from_unixtime(unix_timestamp(InvoiceDate, 'dd/MM/yyyy H:mm'))) AS
year,
    MONTH(from_unixtime(unix_timestamp(InvoiceDate, 'dd/MM/yyyy H:mm'))) AS
month
FROM retail_db.ventas_minimal;
```

```
hive> SELECT * FROM retail_db.online_retail_partitioned LIMIT 10;
OK
537135  22144   CHRISTMAS CRAFT LITTLE FRIENDS  3       2010-12-05 12:35:00     2.1     17059   United Kingdom  2010    12
537135  22423   REGENCY CAKESTAND 3 TIER        1       2010-12-05 12:35:00     12.75   17059   United Kingdom  2010    12
537135  22560   TRADITIONAL MODELLING CLAY      6       2010-12-05 12:35:00     1.25    17059   United Kingdom  2010    12
537135  22818   CARD CHRISTMAS VILLAGE  12      2010-12-05 12:35:00     0.42    17059   United Kingdom  2010    12
537135  22652   TRAVEL SEWING KIT       2       2010-12-05 12:35:00     1.65    17059   United Kingdom  2010    12
537135  84991   60 TEATIME FAIRY CAKE CASES     1       2010-12-05 12:35:00     0.55    17059   United Kingdom  2010    12
537135  21213   PACK OF 72 SKULL CAKE CASES     1       2010-12-05 12:35:00     0.55    17059   United Kingdom  2010    12
537135  22951   60 CAKE CASES DOLLY GIRL DESIGN 1       2010-12-05 12:35:00     0.55    17059   United Kingdom  2010    12
537135  21977   PACK OF 60 PINK PAISLEY CAKE CASES      1       2010-12-05 12:35:00     0.55    17059   United Kingdom  2010    12
537135  85227   SET OF 6 3D KIT CARDS FOR KIDS  2       2010-12-05 12:35:00     0.85    17059   United Kingdom  2010    12
Time taken: 0.188 seconds, Fetched: 10 row(s)
```

5) APARTADO E

Análisis de clientes

1) 10 clientes con mayor gasto total

```
SELECT CustomerID,
       SUM(Quantity * UnitPrice) AS total_gasto
FROM retail_db.online_retail_partitioned
WHERE CustomerID IS NOT NULL
GROUP BY CustomerID
ORDER BY total_gasto DESC
LIMIT 10;
```

```
14646   280206.02000000014
18102   259657.30000000022
17450   194550.79000000007
16446   168472.5
14911   143825.05999999907
12415   124914.52999999987
14156   117379.62999999951
17511   91062.38
16029   81024.83999999994
12346   77183.6
```

2) Clientes con más compras (cantidad de facturas)

```
SELECT CustomerID,
```

```
       COUNT(DISTINCT InvoiceNo) AS num_facturas
FROM retail_db.online_retail_partitioned
WHERE CustomerID IS NOT NULL
GROUP BY CustomerID
ORDER BY num_facturas DESC
LIMIT 10;
```

```
12748   209
14911   201
17841   124
13089   97
14606   93
15311   91
12971   86
14646   73
16029   63
13408   62
```

Análisis de productos

3) 10 productos más vendidos

```
SELECT StockCode,
       Description,
       SUM(Quantity) AS total_vendido
FROM retail_db.online_retail_partitioned
GROUP BY StockCode, Description
ORDER BY total_vendido DESC
LIMIT 10;
```

```
23843   PAPER CRAFT , LITTLE BIRDIE     80995
23166   MEDIUM CERAMIC TOP STORAGE JAR  77916
84077   WORLD WAR 2 GLIDERS ASSTD DESIGNS       54415
85099B  JUMBO BAG RED RETROSPOT 46181
85123A  WHITE HANGING HEART T-LIGHT HOLDER      36725
84879   ASSORTED COLOUR BIRD ORNAMENT   35362
21212   PACK OF 72 RETROSPOT CAKE CASES 33693
22197   POPCORN HOLDER  30931
23084   RABBIT NIGHT LIGHT      27202
22492   MINI PAINT SET VINTAGE  26076
```

4) 10 productos más rentables (suma de precio unitario por cantidad)

```
SELECT StockCode,
       Description,
       SUM(Quantity * UnitPrice) AS total_ingresos
FROM retail_db.online_retail_partitioned
GROUP BY StockCode, Description
ORDER BY total_ingresos DESC
LIMIT 10;
```

```
23843   PAPER CRAFT , LITTLE BIRDIE     168469.6
22423   REGENCY CAKESTAND 3 TIER        142592.9499999997
85123A  WHITE HANGING HEART T-LIGHT HOLDER      100448.14999999915
85099B  JUMBO BAG RED RETROSPOT 85220.78000000077
23166   MEDIUM CERAMIC TOP STORAGE JAR  81416.73
POST    POSTAGE 77803.95999999999
47566   PARTY BUNTING   68844.33000000037
84879   ASSORTED COLOUR BIRD ORNAMENT   56580.33999999961
M       Manual  53779.929999999964
23084   RABBIT NIGHT LIGHT      51346.2000000001
```

Análisis geográfico

5) Países con mayor volumen de ventas

```
SELECT Country,
       SUM(Quantity) AS total_unidades
FROM retail_db.online_retail_partitioned
GROUP BY Country
ORDER BY total_unidades DESC;
```

```
United Kingdom  4256740
Netherlands     200361
EIRE    140275
Germany 119261
France  111471
Australia       83901
Sweden  36083
Switzerland     30082
Spain   27940
Japan   26016
Belgium 23237
Norway  19336
Portugal        16122
Finland 10704
Channel Islands 9491
```

Análisis temporal

6) Ventas totales por mes (suma de precio unitario por cantidad)

```
SELECT year,
       month,
       SUM(Quantity * UnitPrice) AS total_ventas
FROM retail_db.online_retail_partitioned
GROUP BY year, month
ORDER BY year, month;
```

```
2010    12      572713.890000007
2011    1       569445.0400000071
2011    2       447137.3500000143
2011    3       595500.7600000119
2011    4       469200.3610000132
2011    5       678594.5599999911
2011    6       661213.6900000054
2011    7       600091.0110000115
2011    8       645343.900000009
2011    9       952838.3819999964
2011    10      1039318.7899999821
2011    11      1161817.3799999433
2011    12      518192.7900000037
```

7) Hora del día con más actividad

```
SELECT HOUR(InvoiceDate) AS hora,
       COUNT(*) AS num_transacciones
FROM retail_db.online_retail_partitioned
GROUP BY HOUR(InvoiceDate)
ORDER BY num_transacciones DESC
LIMIT 1;
```

```
OK
12      72065
```

6) APARTADO F

SQOOP

1) En tu servidor MySQL en la máquina EC2 crea una base de datos y una tabla para almacenar los datos del fichero ventas.csv.

Nos conectamos a la maquina con la base de datos, uno siempre vuelve a donde fue feliz.

```
PS C:\Users\Mañana> ssh -i "C:\Users\Mañana\clave_Ubuntu_MySql.pem" ubuntu@44.212.173.124
Welcome to Ubuntu 22.04.5 LTS (GNU/Linux 6.8.0-1042-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/pro

 System information as of Mon Dec 15 10:21:45 UTC 2025

  System load:  0.0               Processes:             101
  Usage of /:   42.8% of 7.57GB   Users logged in:       0
  Memory usage: 57%               IPv4 address for eth0: 172.31.19.99
  Swap usage:   0%
```

Creamos la base de datos

```
mysql> CREATE DATABASE IF NOT EXISTS retail_db;
Query OK, 1 row affected (0.02 sec)

mysql> USE retail_db;
Database changed
mysql> CREATE TABLE IF NOT EXISTS ventas (
    ->     InvoiceNo VARCHAR(20),
    ->     StockCode VARCHAR(20),
    ->     Description VARCHAR(255),
    ->     Quantity INT,
    ->     InvoiceDate DATETIME,
    ->     UnitPrice DECIMAL(10,2),
    ->     CustomerID VARCHAR(20),
    ->     Country VARCHAR(50)
    -> );
Query OK, 0 rows affected (0.05 sec)
```

2) Exporta con SQOOP los datos de ventas.csv a la tabla que creaste en el punto anterior

Exportamos

```
sqoop export \
--connect jdbc:mysql://44.212.173.124:3306/retail_db \
--username admin_remote \
--password 12345_Sql \
--table ventas \
--export-dir /user/pablo/ventas \
--input-fields-terminated-by ';' \
--input-lines-terminated-by '\n' \
--columns
"InvoiceNo,StockCode,Description,Quantity,InvoiceDate,UnitPrice,CustomerID,Co
untry" \
--driver com.mysql.cj.jdbc.Driver
```

```
mysql> SELECT * FROM ventas;
573744  21314   SMALL GLASS HEART TRINKET POT   8       2011-11-01 08:16:00     2.1     17733   United Kingdom
573744  21704   BAG 250g SWIRLY MARBLES 12      2011-11-01 08:16:00     0.85    17733   United Kingdom
573744  21791   VINTAGE HEADS AND TAILS CARD GAME       12      2011-11-01 08:16:00     1.25    17733   United Kingdom
573744  21892   TRADITIONAL WOODEN CATCH CUP GAME       12      2011-11-01 08:16:00     1.25    17733   United Kingdom
573744  21915   RED  HARMONICA IN BOX   12      2011-11-01 08:16:00     1.25    17733   United Kingdom
573744  22065   CHRISTMAS PUDDING TRINKET POT   48      2011-11-01 08:16:00     0.39    17733   United Kingdom
573744  22340   NOEL GARLAND PAINTED ZINC       24      2011-11-01 08:16:00     0.39    17733   United Kingdom
573744  22577   WOODEN HEART CHRISTMAS SCANDINAVIAN     24      2011-11-01 08:16:00     0.29    17733   United Kingdom
573744  22578   WOODEN STAR CHRISTMAS SCANDINAVIAN      24      2011-11-01 08:16:00     0.29    17733   United Kingdom
573744  22579   WOODEN TREE CHRISTMAS SCANDINAVIAN      24      2011-11-01 08:16:00     0.29    17733   United Kingdom
```