Lab Exercise 06: Analysis the Supermarket Sales data using Hive Query Language

This exercise try to Analysis the Supermarket Sales data using Hive Query Language.

Step 01: Display Available Database

>show databases;

```
Logging initialized using configuration in file:/etc/hive/conf.dist/hive-log4j.properties
WARNING: Hive CLI is deprecated and migration to Beeline is recommended.
hive> show databases;
OK
default
Time taken: 8.582 seconds, Fetched: 1 row(s)
```

Step 02: Create Database as "SuperMarket"

>create database SuperMarket;

Step 03: Use "SuperMarket" Database

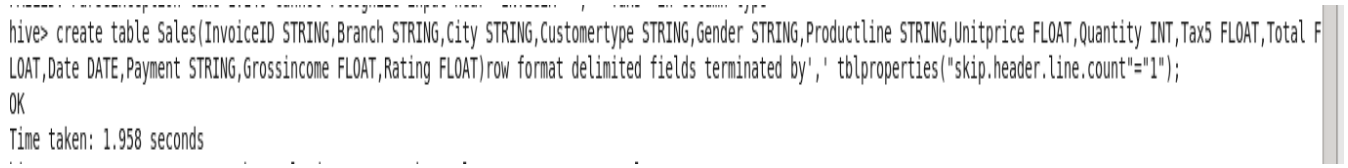
>use SuperMarket;

Step 04: Display available Tables

>describe Sales;

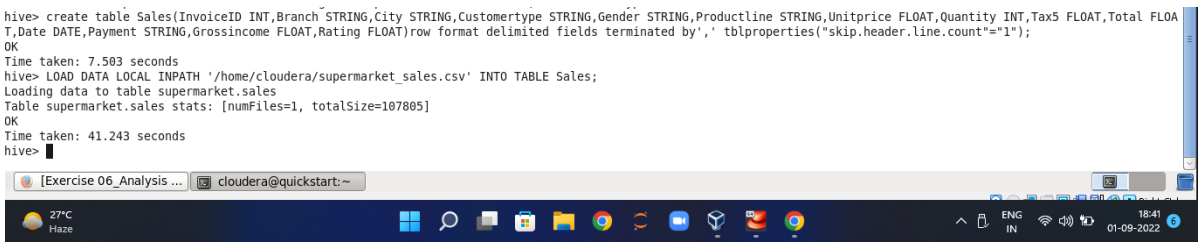
Step 05: Create Table "Sales" with following scheme

>create table Sales(InvoiceID STRING,Branch STRING,City STRING,Customertype STRING,GENDER STRING,Productline STRING,UnitPrice FLOAT,Quantity INT,Tax5 FLOAT,Total FLOAT,Date DATE,Payment STRING,Grossincome FLOAT,Rating FLOAT)row format delimited fields terminated by',' tblproperties("skip.header.line.count"="1");



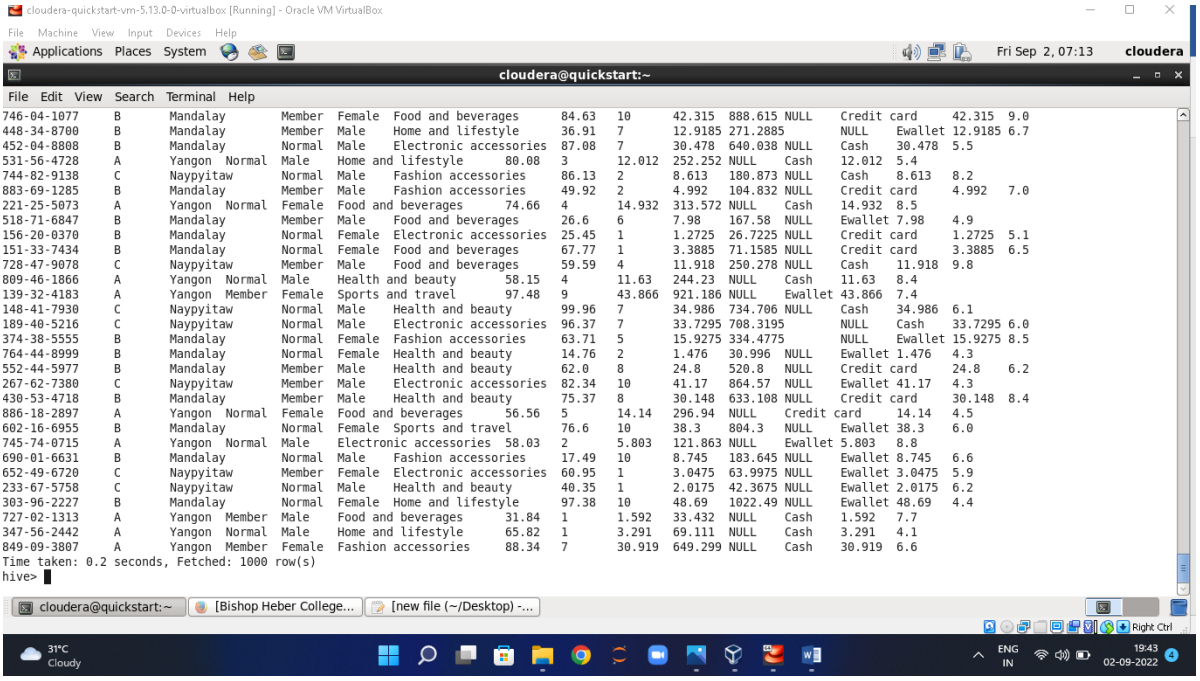
Step 06: Copy 'supermarket_sales.csv' into Hadoop local (/home/cloudera/)

>LOAD DATA LOCAL INPATH '/home/cloudera/supermarket_sales.csv' INTO TABLE Sales;



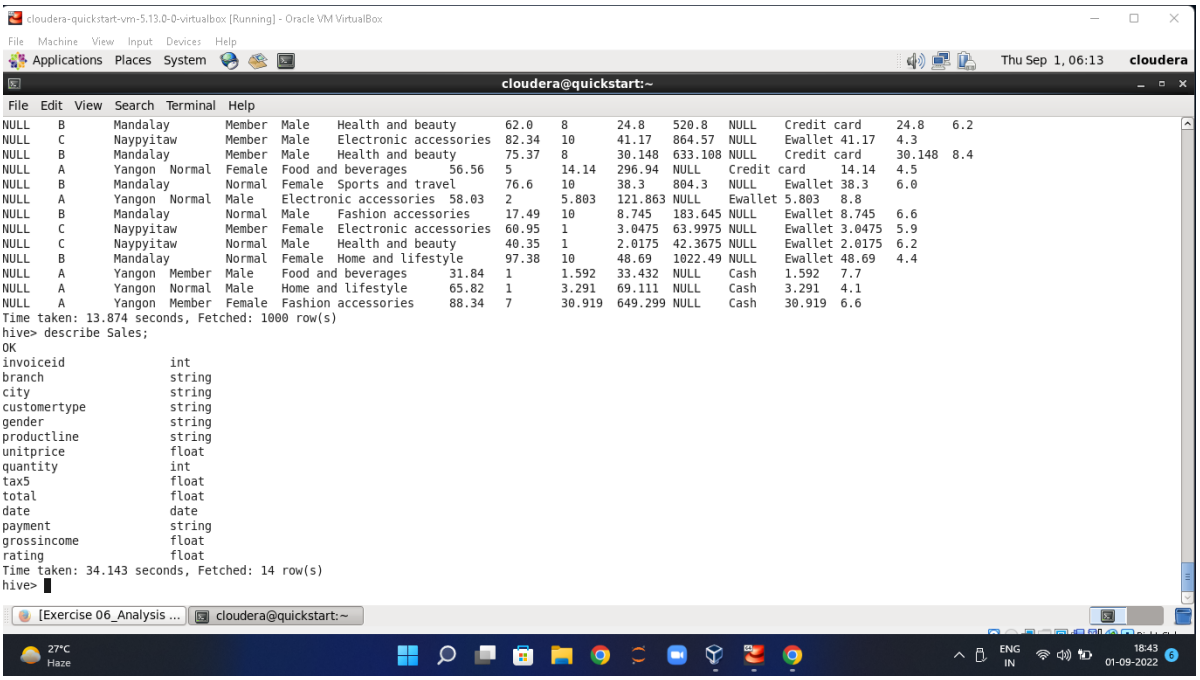
Step 07: Load ‘supermarket_sales.csv’ data into table ‘Sales’

>select * from Sales;



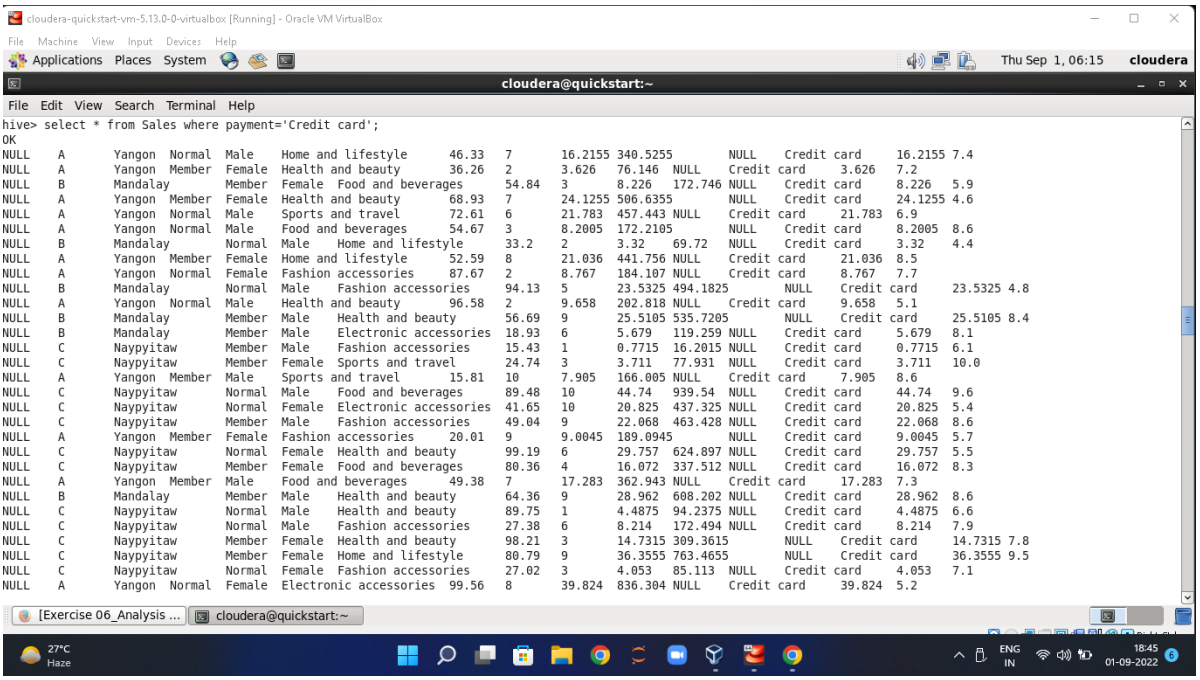
Step 08: Display the content in table ‘Sales’

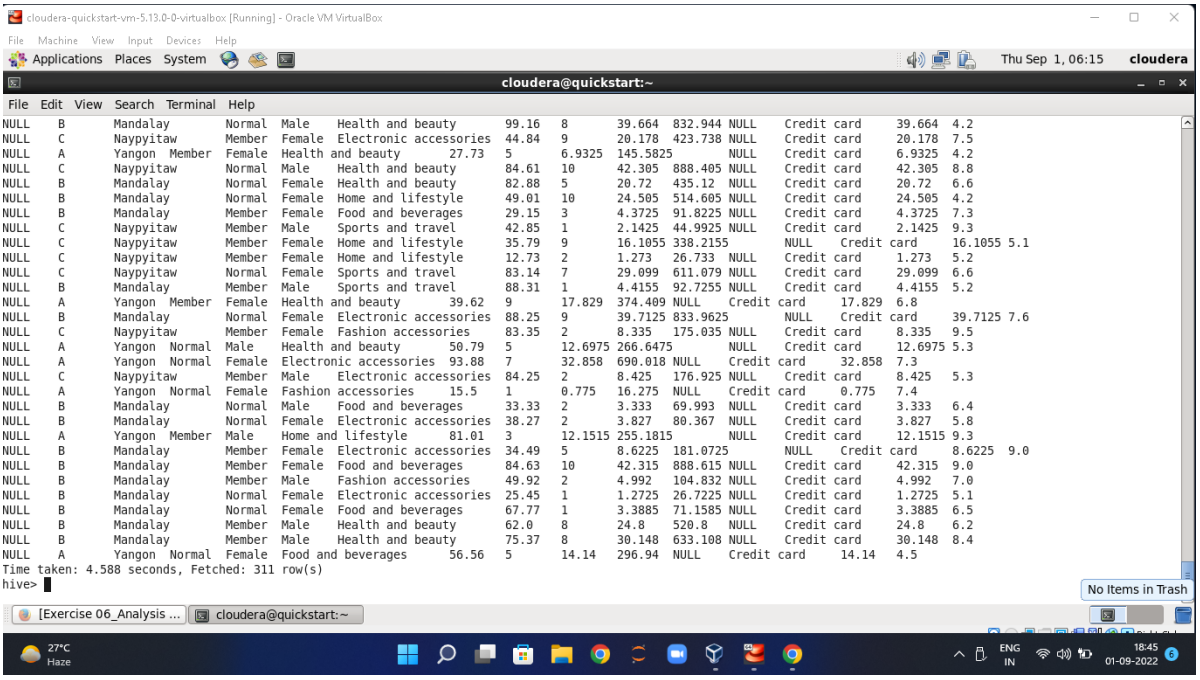
>Describe Sales;



Q01: Display records who paid money through credit card?

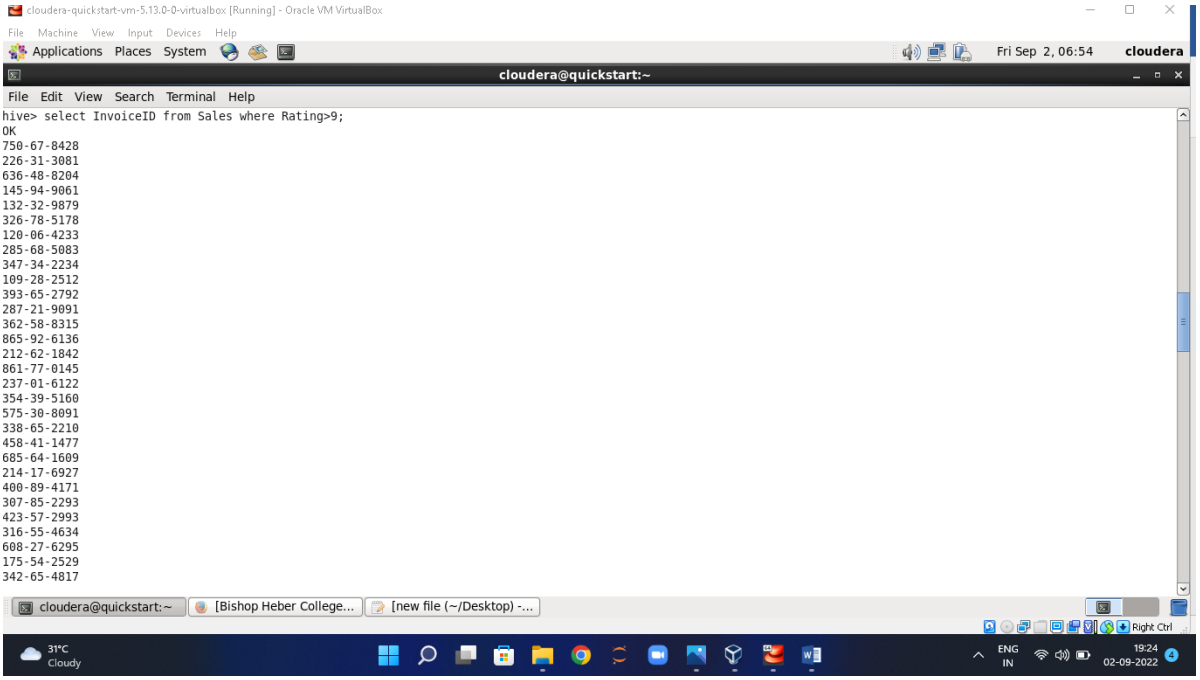
>select * from Sales where Payment=’Credit card”;

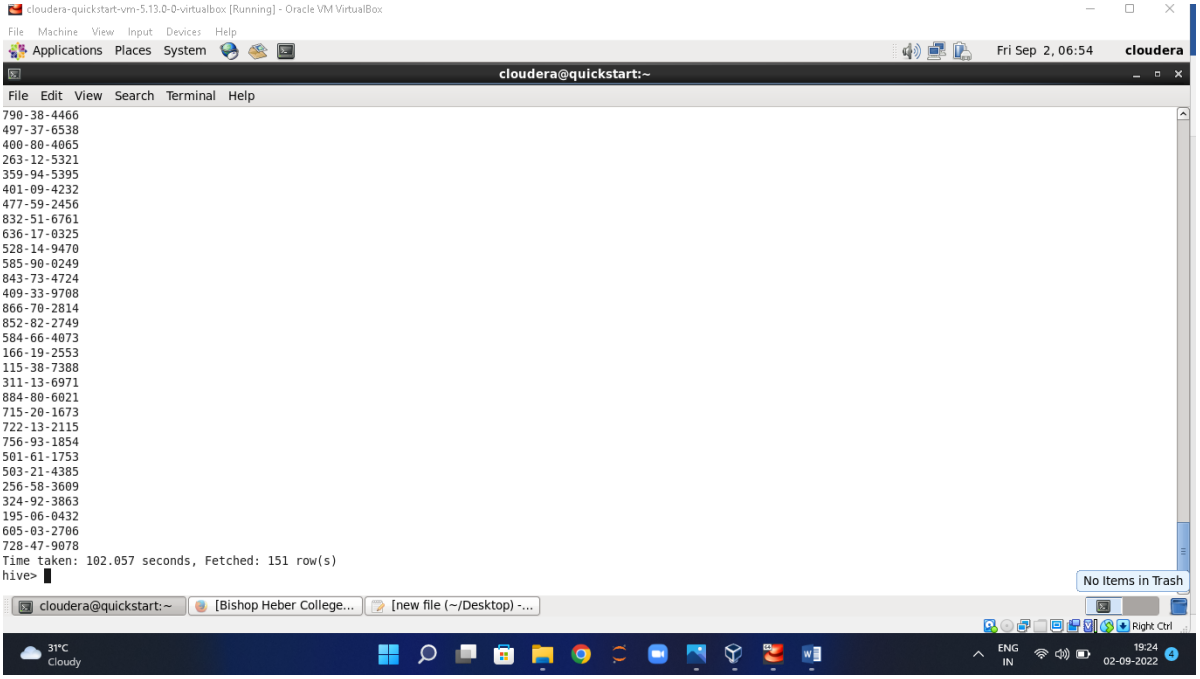




Q02: Show all Invoice ID which table entry in has more than 9 rating.

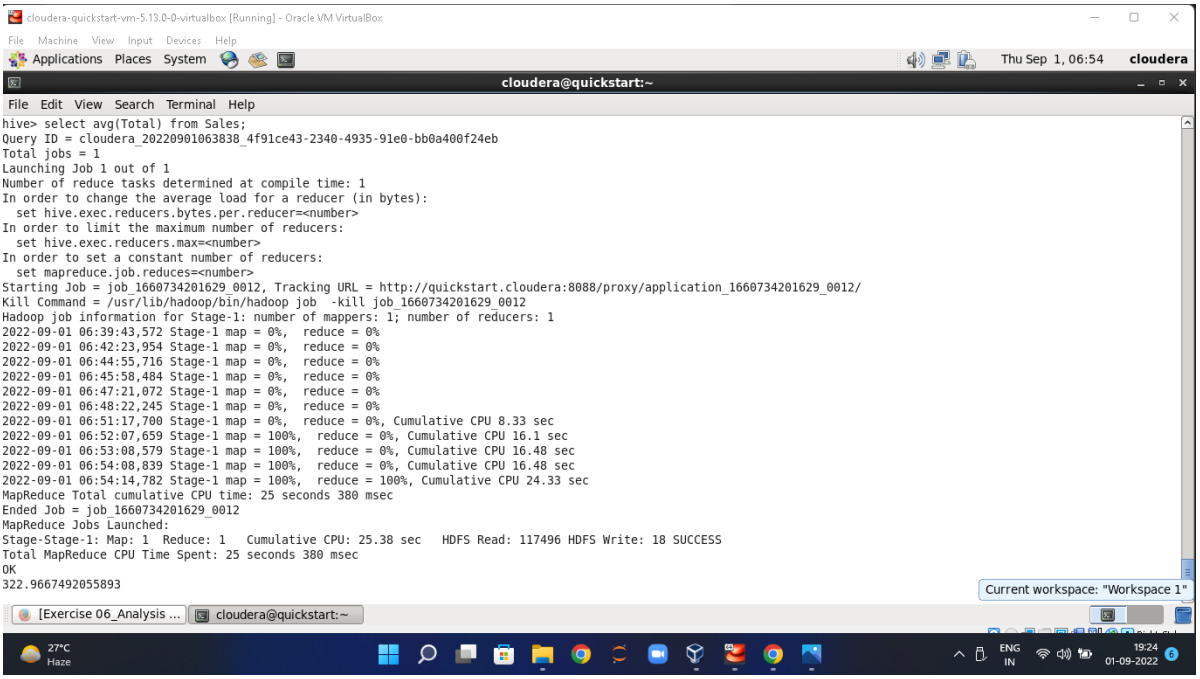
>select InvoiceID from Sales where Rating>9;





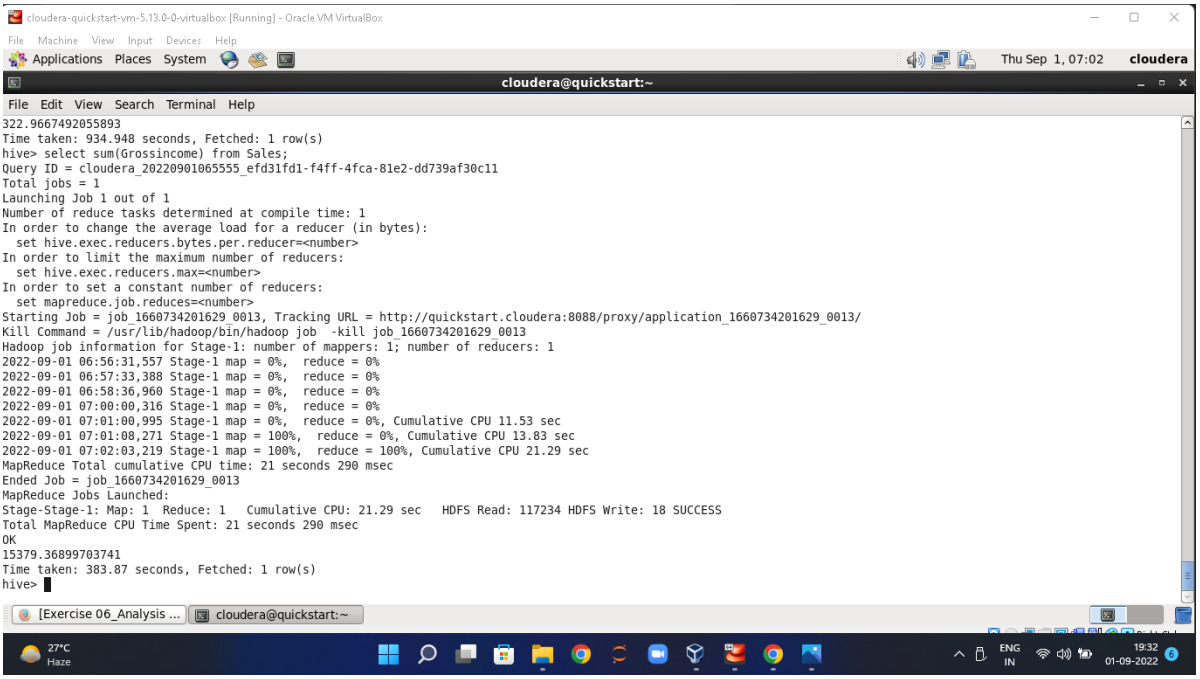
Q03: Find Average sale amount in the data set.

>select avg(Total) from Sales;



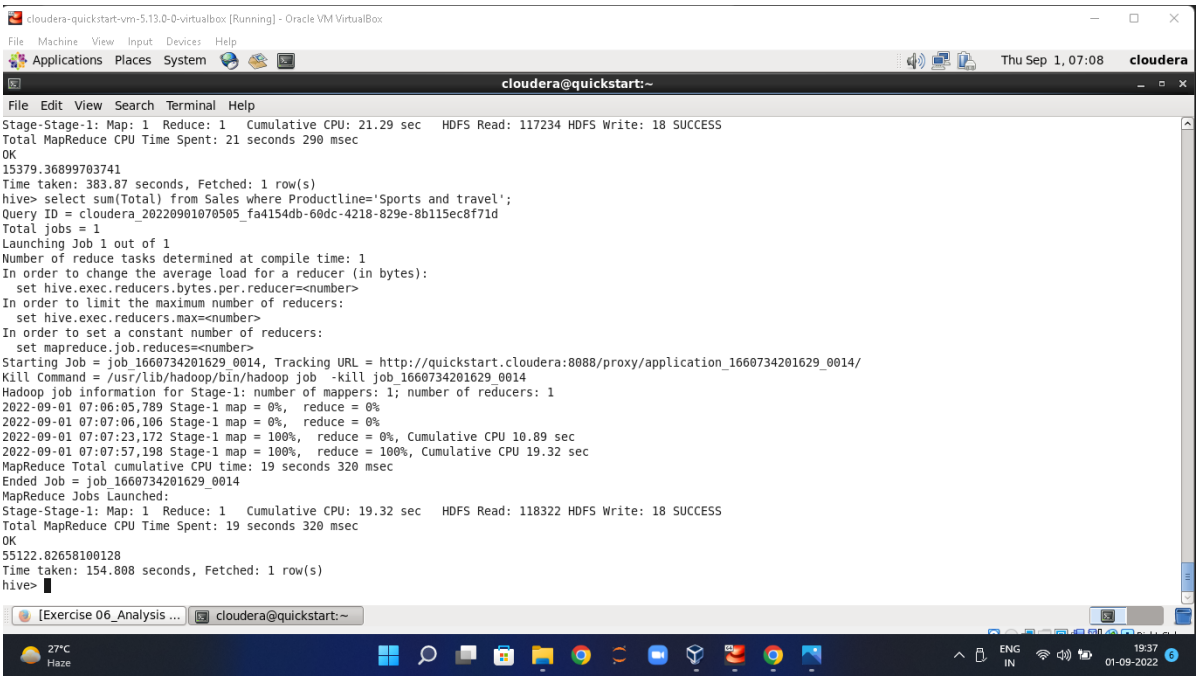
Q04: Calculate total gross income in the data set.

>select sum(Grossincome) from Sales;



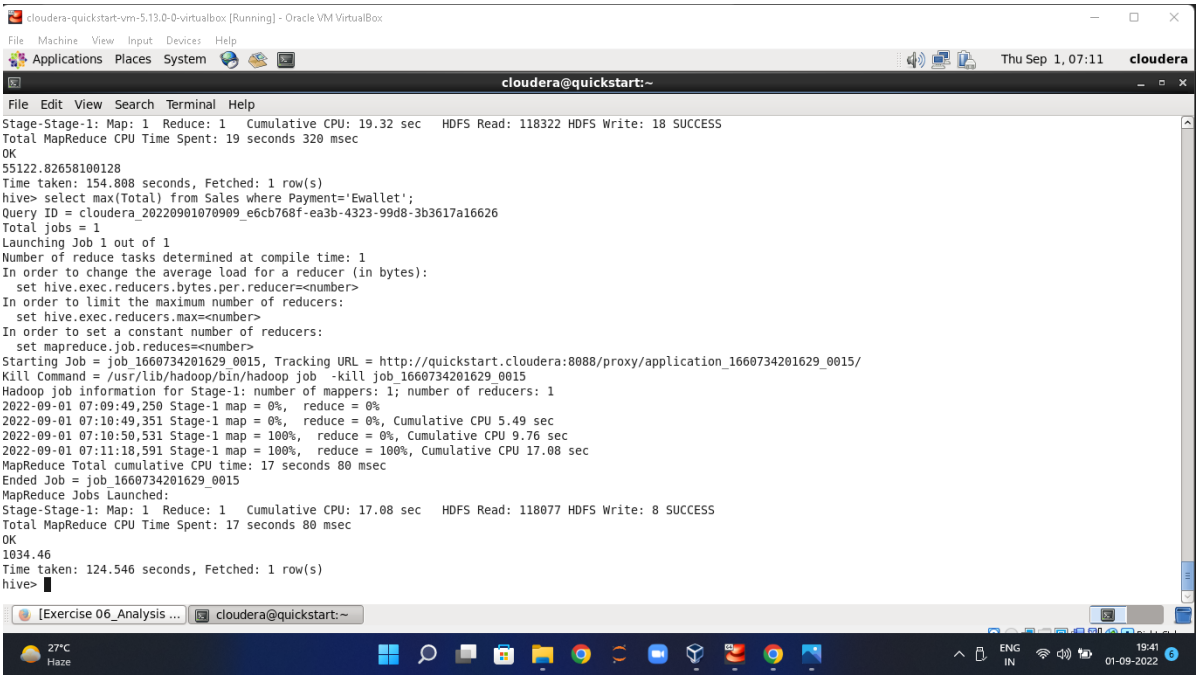
Q05: Find total sale amount under 'Sports and travel' product line.

>select sum(Total) from Sales where Productline=”Sports and travel”;



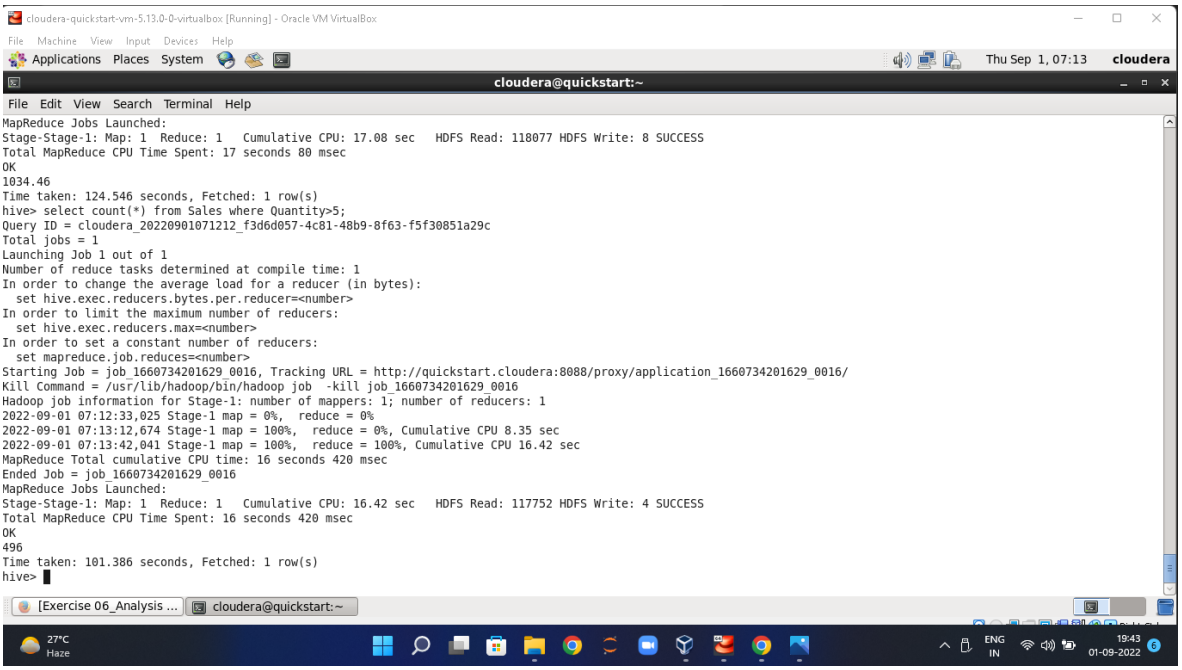
Q06: Find maximum sales amount in which payment in ‘Ewallet’ payment

>select max(Total) from Sales where Payment=”EWallet”;



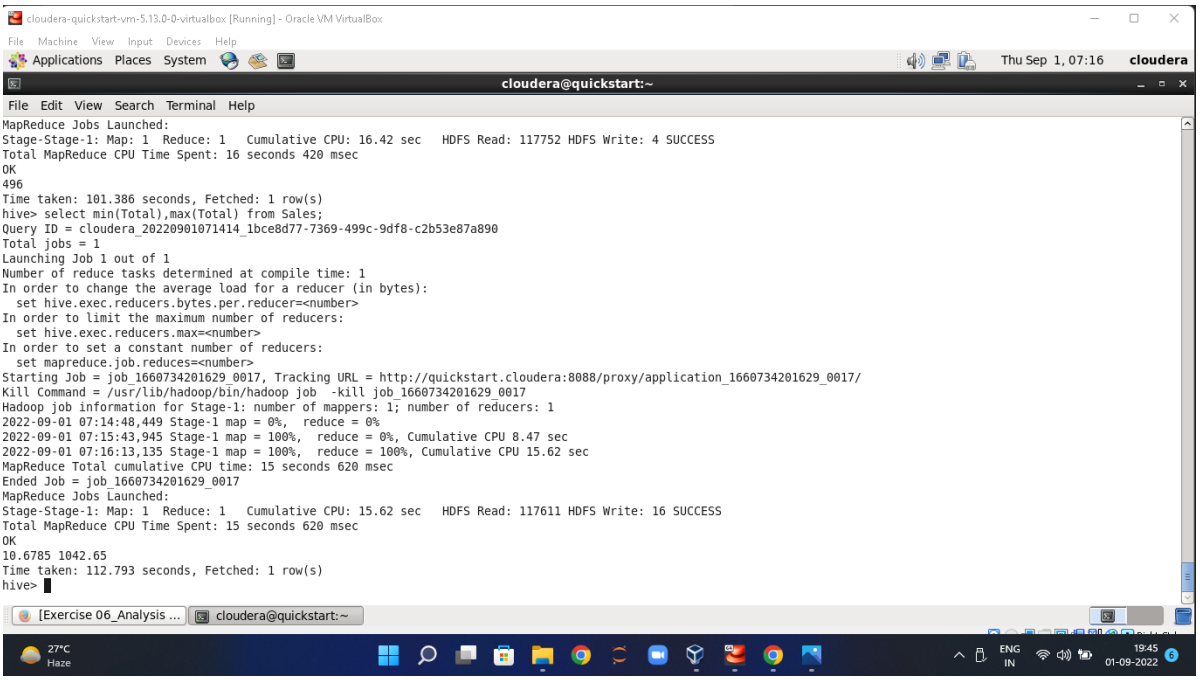
Q07: Count number of sales which is has >5 quantity.

>select count(*) from Sales where Quantity>5;



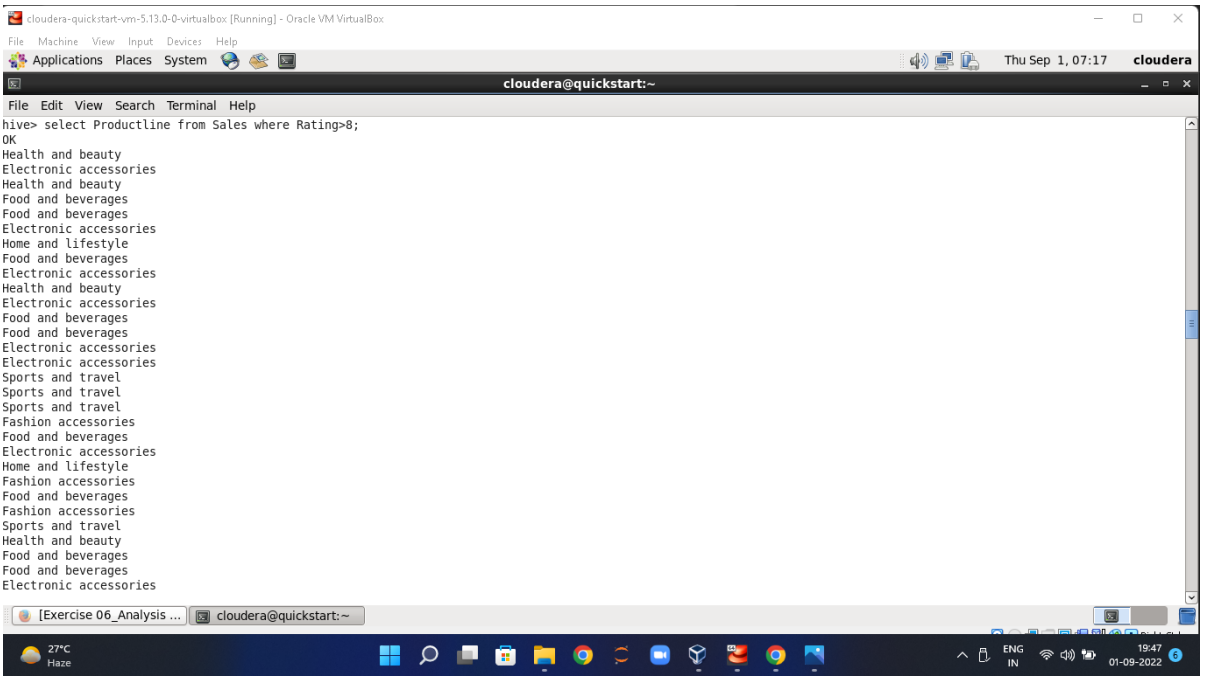
Q08: Find minimum and maximum sale total amount

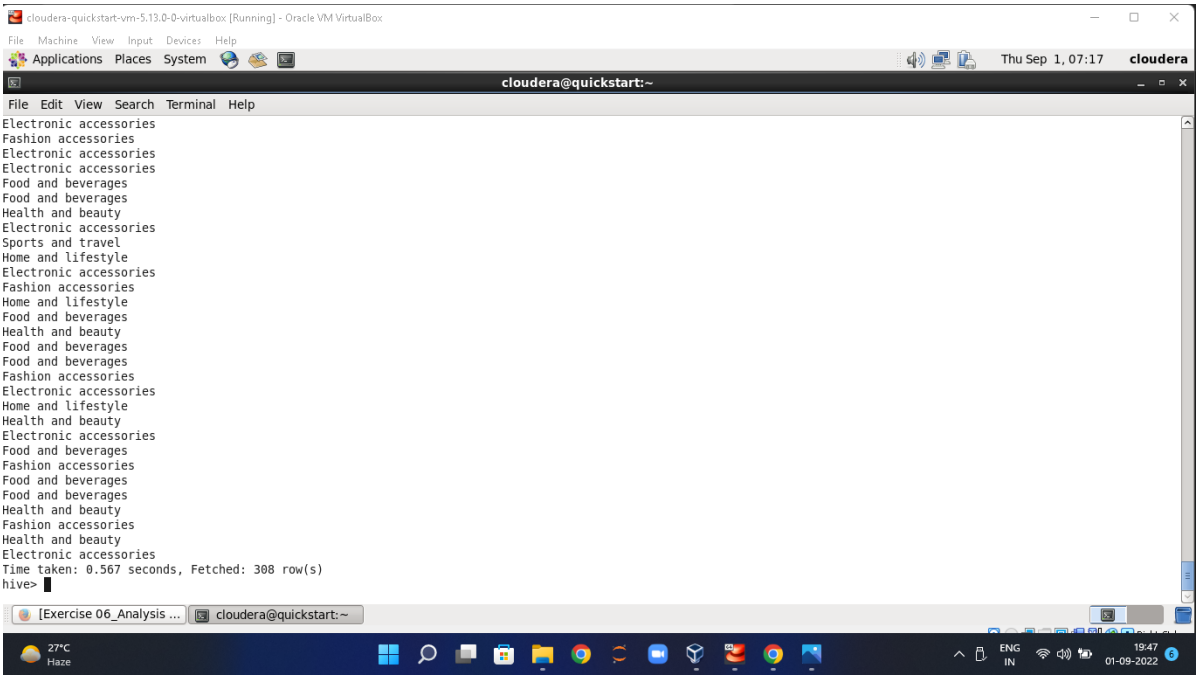
>select min(Total),max(Total) from Sales;



Q09: List the product line which has more than 8 rating

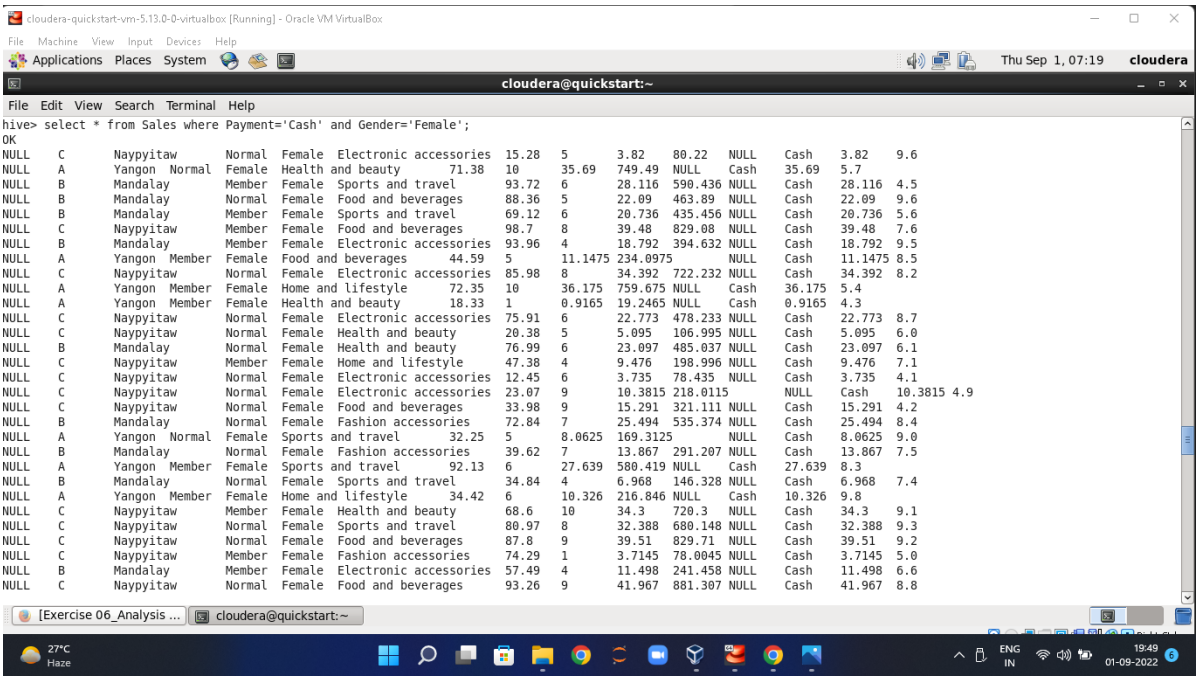
>select Productline from Sales where Rating>8;



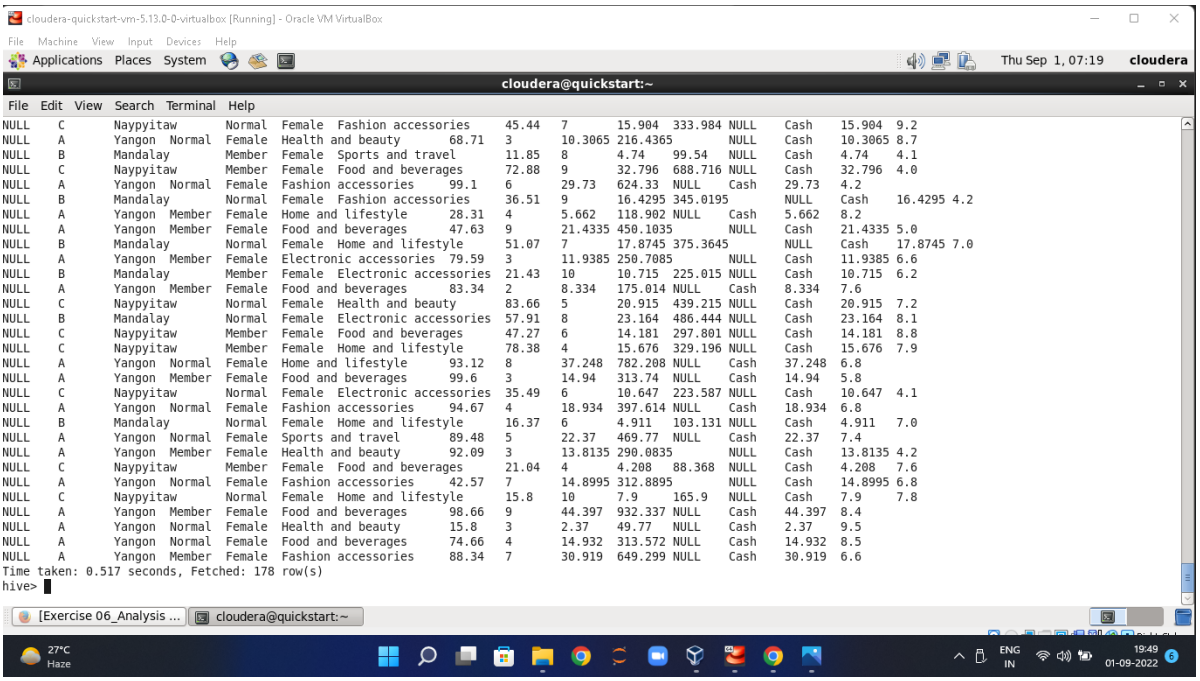


Q10: Display the records who has paid through cash and female customer.

>select * from Sales where Payment=”Cash” and Gender=”Female”;



```
hive> select * from Sales where Payment='Cash' and Gender='Female';
OK
NULL    C       Naypyitaw       Normal  Female  Electronic accessories  15.28   5       3.82    80.22   NULL    Cash    3.82    9.6
NULL    A       Yangon  Normal  Female  Health and beauty       71.38   10      35.69   749.49  NULL    Cash    35.69   5.7
NULL    B       Mandalay        Member  Female  Sports and travel       93.72   6       28.116  590.436 NULL    Cash    28.116  4.5
NULL    B       Mandalay        Normal  Female  Food and beverages      88.36   5       22.09   463.89  NULL    Cash    22.09   9.6
NULL    B       Mandalay        Member  Female  Sports and travel       69.12   6       20.736  435.456 NULL    Cash    20.736  5.6
NULL    C       Naypyitaw       Member  Female  Food and beverages      98.7    8       39.48   829.08  NULL    Cash    39.48   7.6
NULL    B       Mandalay        Member  Female  Electronic accessories  93.96   4       18.792  394.632 NULL    Cash    18.792  9.5
NULL    A       Yangon  Member  Female  Food and beverages       44.59   5       11.1475 234.0975        NULL    Cash    11.1475 8.5
NULL    C       Naypyitaw       Normal  Female  Electronic accessories  85.98   8       34.392  722.232 NULL    Cash    34.392  8.2
NULL    A       Yangon  Member  Female  Home and lifestyle      72.35   10      36.175  759.675 NULL    Cash    36.175  5.4
NULL    A       Yangon  Member  Female  Health and beauty       18.33   1       0.9165  19.2465 NULL    Cash    0.9165  4.3
NULL    C       Naypyitaw       Normal  Female  Electronic accessories  75.91   6       22.773  478.233 NULL    Cash    22.773  8.7
NULL    C       Naypyitaw       Normal  Female  Health and beauty       20.38   5       5.095   106.995 NULL    Cash    5.095   6.0
NULL    B       Mandalay        Normal  Female  Health and beauty       76.99   6       23.097  485.037 NULL    Cash    23.097  6.1
NULL    C       Naypyitaw       Member  Female  Home and lifestyle      47.38   4       9.476   198.996 NULL    Cash    9.476   7.1
NULL    C       Naypyitaw       Normal  Female  Electronic accessories  12.45   6       3.735   78.435  NULL    Cash    3.735   4.1
NULL    C       Naypyitaw       Normal  Female  Electronic accessories  23.07   9       10.3815 218.0115        NULL    Cash    10.3815 4.9
NULL    C       Naypyitaw       Normal  Female  Food and beverages      33.98   9       15.291  321.111 NULL    Cash    15.291  4.2
NULL    B       Mandalay        Normal  Female  Fashion accessories     72.84   7       25.494  535.374 NULL    Cash    25.494  8.4
NULL    A       Yangon  Normal  Female  Sports and travel       32.25   5       8.0625  169.3125        NULL    Cash    8.0625  9.0
NULL    B       Mandalay        Normal  Female  Fashion accessories     39.62   7       13.867  291.207 NULL    Cash    13.867  7.5
NULL    A       Yangon  Member  Female  Sports and travel       92.13   6       27.639  580.419 NULL    Cash    27.639  8.3
NULL    B       Mandalay        Normal  Female  Sports and travel       34.84   4       6.968   146.328 NULL    Cash    6.968   7.4
NULL    A       Yangon  Member  Female  Home and lifestyle      34.42   6       10.326  216.846 NULL    Cash    10.326  9.8
NULL    C       Naypyitaw       Member  Female  Health and beauty       68.6    10      34.3    720.3   NULL    Cash    34.3    9.1
NULL    C       Naypyitaw       Normal  Female  Sports and travel       80.97   8       32.388  680.148 NULL    Cash    32.388  9.3
NULL    C       Naypyitaw       Normal  Female  Food and beverages      87.8    9       39.51   829.71  NULL    Cash    39.51   9.2
NULL    C       Naypyitaw       Member  Female  Fashion accessories     74.29   1       3.7145  78.0045 NULL    Cash    3.7145  5.0
NULL    B       Mandalay        Member  Female  Electronic accessories  57.49   4       11.498  241.458 NULL    Cash    11.498  6.6
NULL    C       Naypyitaw       Normal  Female  Food and beverages      93.26   9       41.967  881.307 NULL    Cash    41.967  8.8
```



```
NULL    C       Naypyitaw       Normal  Female  Fashion accessories     45.44   7       15.904  333.984 NULL    Cash    15.904  9.2
NULL    A       Yangon  Normal  Female  Health and beauty       68.71   3       10.3065 216.4365        NULL    Cash    10.3065 8.7
NULL    B       Mandalay        Member  Female  Sports and travel       11.85   8       4.74    99.54   NULL    Cash    4.74    4.1
NULL    C       Naypyitaw       Member  Female  Food and beverages      72.88   9       32.796  688.716 NULL    Cash    32.796  4.0
NULL    A       Yangon  Normal  Female  Fashion accessories     99.1    6       29.73   624.33  NULL    Cash    29.73   4.2
NULL    B       Mandalay        Normal  Female  Fashion accessories     36.51   9       16.4295 345.0195        NULL    Cash    16.4295 4.2
NULL    A       Yangon  Member  Female  Home and lifestyle      28.31   4       5.662   118.902 NULL    Cash    5.662   8.2
NULL    A       Yangon  Member  Female  Food and beverages      47.63   9       21.4335 450.1035        NULL    Cash    21.4335 5.0
NULL    B       Mandalay        Normal  Female  Home and lifestyle      51.07   7       17.8745 375.3645        NULL    Cash    17.8745 7.0
NULL    A       Yangon  Member  Female  Electronic accessories  79.59   3       11.9385 250.7085        NULL    Cash    11.9385 6.6
NULL    B       Mandalay        Member  Female  Electronic accessories  21.43   10      10.715  225.015 NULL    Cash    10.715  6.2
NULL    A       Yangon  Member  Female  Food and beverages      83.34   2       8.334   175.014 NULL    Cash    8.334   7.6
NULL    C       Naypyitaw       Normal  Female  Health and beauty       83.66   5       20.915  439.215 NULL    Cash    20.915  7.2
NULL    B       Mandalay        Normal  Female  Electronic accessories  57.91   8       23.164  486.444 NULL    Cash    23.164  8.1
NULL    C       Naypyitaw       Member  Female  Food and beverages      47.27   6       14.181  297.801 NULL    Cash    14.181  8.8
NULL    C       Naypyitaw       Member  Female  Home and lifestyle      78.38   4       15.676  329.196 NULL    Cash    15.676  7.9
NULL    A       Yangon  Normal  Female  Home and lifestyle      93.12   8       37.248  782.208 NULL    Cash    37.248  6.8
NULL    A       Yangon  Member  Female  Food and beverages      99.6    3       14.94   313.74  NULL    Cash    14.94   5.8
NULL    C       Naypyitaw       Normal  Female  Electronic accessories  35.49   6       10.647  223.587 NULL    Cash    10.647  4.1
NULL    A       Yangon  Normal  Female  Fashion accessories     94.67   4       18.934  397.614 NULL    Cash    18.934  6.8
NULL    B       Mandalay        Normal  Female  Home and lifestyle      16.37   6       4.911   103.131 NULL    Cash    4.911   7.0
NULL    A       Yangon  Normal  Female  Sports and travel       89.48   5       22.37   469.77  NULL    Cash    22.37   7.4
NULL    A       Yangon  Member  Female  Health and beauty       92.09   3       13.8135 290.0835        NULL    Cash    13.8135 4.2
NULL    C       Naypyitaw       Member  Female  Food and beverages      21.04   4       4.208   88.368  NULL    Cash    4.208   7.6
NULL    A       Yangon  Normal  Female  Fashion accessories     42.57   7       14.8995 312.8895        NULL    Cash    14.8995 6.8
NULL    C       Naypyitaw       Normal  Female  Home and lifestyle      15.8    10      7.9     165.9   NULL    Cash    7.9     7.8
NULL    A       Yangon  Member  Female  Food and beverages      98.66   9       44.397  932.337 NULL    Cash    44.397  8.4
NULL    A       Yangon  Normal  Female  Health and beauty       15.8    3       2.37    49.77   NULL    Cash    2.37    9.5
NULL    A       Yangon  Normal  Female  Food and beverages      74.66   4       14.932  313.572 NULL    Cash    14.932  8.5
NULL    A       Yangon  Member  Female  Fashion accessories     88.34   7       30.919  649.299 NULL    Cash    30.919  6.6
Time taken: 0.517 seconds, Fetched: 178 row(s)
hive>
```