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```
hadoop@admin1-HP-280-G4-MT-Business-PC:~$ cd $HADOOP_HOME
hadoop@admin1-HP-280-G4-MT-Business-PC:~/hadoop-3.2.1$ cd sbin
hadoop@admin1-HP-280-G4-MT-Business-PC:~/hadoop-3.2.1/sbin$ jps
4576 ResourceManager
3984 NameNode
4388 SecondaryNameNode
4728 NodeManager
5354 Jps
4141 DataNode
```

```
hadoop@admin1-HP-280-G4-MT-Business-PC:~/hadoop-3.2.1/sbin$ rm -rf metastore_db
hadoop@admin1-HP-280-G4-MT-Business-PC:~/hadoop-3.2.1/sbin$ ls
```

```
hadoop@admin1-HP-280-G4-MT-Business-PC:~/hadoop-3.2.1/sbin$ schematool -initSchema -dbType derby
SLF4J: Class path contains multiple SLF4J bindings.
SLF4J: Found binding in [jar:file:/home/hadoop/apache-hive-3.1.2-bin/lib/log4j-slf4j-impl-2.10.0.jar!/org/slf4j/impl/Stati
SLF4J: Found binding in [jar:file:/home/hadoop/hadoop-3.2.1/share/hadoop/common/lib/slf4j-log4j12-1.7.25.jar!/org/slf4j/im
.class]
SLF4J: See http://www.slf4j.org/codes.html#multiple_bindings for an explanation.
SLF4J: Actual binding is of type [org.apache.logging.slf4j.Log4jLoggerFactory]
Metastore connection URL:      jdbc:derby:;databaseName=metastore_db;create=true
Metastore Connection Driver :  org.apache.derby.jdbc.EmbeddedDriver
Metastore connection User:    APP
Starting metastore schema initialization to 3.1.0
Initialization script hive-schema-3.1.0.derby.sql
```

```
hive> create database lakshana;
OK
Time taken: 0.121 seconds
hive> |
```

1. Insert 5 records using Insert command in HiveQL

```
>create table sales(product string,price int,payment_type string,name string,city string,state
string,country string);
```

```
hive> desc sales;
OK
product                  string
price                    int
payment_type              string
name                     string
city                      string
state                     string
country                  string
```

```
> insert into sales values("Product1",1200,"Mastercard","carolina","Basildon","England","United
Kingdom");
```

```
insert into sales values("Product2",1200,"Visa","Betin","Parkville","England","United Kingdom");
```

```
insert into sales values('product201',1000,'Visa','Kamal','Bangalore','Karnataka','India');
```

```
insert into sales values('product202',8000,'Visa','Laisha','Amalapuram','Andhra Pradesh','India');
```

```
insert into sales values('product203',2000,'Diners','Madeeha','Raichur','Andhra Pradesh','India');
```

```
hive> select * from sales;
OK
Product1      1200    Mastercard      carolina      Basildon      England United Kingdom
Product2      1200    Visa      Betin      Parkville      England United Kingdom
product201     1000    Visa      Kamal      Bangalore      Karnataka      India
product202     8000    Visa      Laisha      Amalapuram      Andhra Pradesh      India
product203     2000    Diners      Madeeha      Raichur      Andhra Pradesh      India
Time taken: 0.175 seconds, Fetched: 5 row(s)
```

2) Import the dataset from the sales.csv

```
hive> create table sales(product string,price int,payment_type string,name string,city string,state string,country string)
```

```
> row format delimited
> fields terminated by ",";
```

```
hive> load data local inpath '/home/hadoop/Downloads/sales.csv' into table sales;
```

```
hive> create table sales(product string,price int,payment_type string,name string,city string,state string,country string)
> row format delimited
> fields terminated by ",";
OK
Time taken: 0.082 seconds
hive> load data local inpath '/home/hadoop/Downloads/sales.csv' into table sales;
Loading data to table default.sales
OK
Time taken: 0.196 seconds
```

```
hive> select * from sales;
OK
Product NULL    Payment_Type    Name      City      State      Country
Product1      1200    Mastercard      carolina      Basildon      England United Kingdom
Product1      1200    Visa      Betina      Parkville      MO      United States
Product1      1200    Mastercard      Federica e Andrea      Astoria OR      United States
Product1      1200    Visa      Gouya      Echuca      Victoria      Australia
Product2      3600    Visa      Gerd W      Cahaba Heights      AL      United States
Product1      1200    Visa      LAURENCE      Mickleton      NJ      United States
Product1      1200    Mastercard      Fleur      Peoria IL      United States
Product1      1200    Mastercard      adam      Martin TN      United States
Product1      1200    Mastercard      Renee Elisabeth      Tel Aviv      Tel Aviv      Israel
Product1      1200    Visa      Aidan      Chatou Ile-de-France      France
Product1      1200    Diners      Stacy      New York      NY      United States
Product1      1200    Amex      Heidi      Eindhoven      Noord-Brabant      Netherlands
Product1      1200    Mastercard      Sean      Shavano Park      TX      United States
Product1      1200    Visa      Georgia Eagle      ID      United States
Product1      1200    Visa      Richard      Riverside      NJ      United States
Product1      1200    Diners      Leanne      Julianstown      Meath      Ireland
Product1      1200    Visa      Janet      Ottawa Ontario      Canada
Product1      1200    Diners      barbara      Hyderabad      Andhra Pradesh      India
```

3) Count the number of sales done by each country

```
hive> select country,sum(price) from sales group by country;
```

Argentina	1200
Australia	64800
Austria	10800
Bahrain	1200
Belgium	12000
Bermuda	1200
Brazil	12300
Bulgaria	1200
CO	NULL
Canada	124800
Cayman Isls	1200
China	1200
Costa Rica	1200
Country	NULL
Czech Republic	6000
Denmark	18000
Dominican Republic	1200
Finland	2400
France	53100
Germany	42000
Greece	1200
Guatemala	1200
Hong Kong	1200
Hungary	3600
Iceland	1200
India	2400
Ireland	69900
Israel	1200
Italy	37800
Japan	2400
Jersey	1200
Kuwait	1200
Latvia	1200
Luxembourg	1200
Malaysia	1200
Malta	4800

```
Luxembourg      1200
Malaysia        1200
Malta          4800
Mauritius       3600
Moldova         1200
Monaco          2400
Netherlands     44700
New Zealand     7200
Norway          21600
Philippines     2400
Poland          2400
Romania         1200
Russia          3600
South Africa    12300
South Korea     1200
Spain           16800
Sweden          22800
Switzerland     76800
Thailand        4800
The Bahamas     2400
Turkey          7200
Ukraine         1200
United Arab Emirates 12000
United Kingdom   144000
United States    737000
Time taken: 16.042 seconds, Fetched: 58 row(s)
```

4) Count the number of sales done by each state

```
select state,sum(price) from sales group by state;
```

```

13200
AK      8400
AL      3600
AR      9900
AZ      16850
Aargau  4800
Abu Zaby    1200
Al Manamah   1200
Alberta 26400
Alsace  1200
Andalucia   1200
Andhra Pradesh 1200
Antwerpen   1200
Arhus     1200
Attiki    1200
Auckland   4800
Bacs-Kiskun 1200
Baden-Wurttemberg 6000
Basel-Country 4800
Basel-Town   1200
Bayern     9600
Berlin     1200
Bern       3600
Black River  3600
Bohol      1200
British Columbia 28800
Brittany    8700
Brussels (Bruxelles) 9600
Bucuresti   1200
Budapest    1200
Buenos Aires 1200
Buskerud    1200
CA      142250

```

5) Display (Product, name) grouped by product

```
hive> select product , concat_ws(",", collect_list(name)) from sales group by product;
```

```

Product Name
Product1  carolina,Betina,Federica e Andrea,Gouya,LAURENCE,Fleur,adam,Renee Elisabeth,Aidan,Stacy,Heidi,Sean,Georgia,Richard,Leanne,Jane
t,barbara,Hant,Jeremy,Janis,Nicola,asuman,Lena,Lisa,Bryan Kerrene,chris,Maxine,Family,Katherine,Linda,SYLVIA,Sheila,Stephanie,Kelly,jennifer,A
nneli,Marie,Mehmet Fatih,Nicole,Sari,simone,Vanessa,Anupam,Karina,Frank,Angela,Darren,Nikki,chris,Stephanie,Anushka,June,Bonnie,Cindy,chrissy,
Tamar,Bernadett,dottie,Stefan,Gina,Lynne,Tammy,Kim,Bruce,Rosa Maria,Lydia,Eric,AnaPaula,Robin,Gitte,Dr. Claudia,Crystal,Delphine,nathalie,Lind
i,Kevin,Clare,Alice,ZENA,Andrea,Rennae,Gerhard,Megan,Danielle,Tod,Janalna,Kofi,Jennifer,Jolene,anne,Alexis,Dez,Stephanie,Melissa,CLARE,catheri
ne,Veronique,Bruce and Camille,Ellen,Amy,Anna,Regina,Heidi,Jessica,Petra,Brian,Kenny,ayse,Maria and Timothy,IMAN,Gerald,Annelies,Jocelyn,Kara,
Orsi,Ben,Sam,Filip and Teresa,Grace,Chelsey,Charis,Marlene,Fte,Nicole,Linda,Janet,Jamie,Chad,sunny,Anna,Roger,Si,Sherry,Katherine,Clare,Campe
ll,Ruth,doug,Shailesh,Conrad,Alison,Tracy,Kate,Sarka,Klara,Andrew,Vicki and Bill,David,Antonella,David,Greg,Jannik,Sylvia,Bernadette,Denise,lu
ciana,Maja,Kirstie,Scott,Jammitte,Frank,scott,Jiri,Dave and Amy,Rebecca,Melissa,Jeremy,Randy,Djentyne,Andrea,Joanna,Jessica,alison,malin,Genevieve
,Saraya,Anastasia,Elizabeth,Nicole,Jeffrey,Blanca Gabriela,Elisa,Bob,Elizabeth,Cathy,suzanne,Cassandra,Jennifer,nicole,Sean,Morgan,Harriet,Jan
ine,Debora,Vishpal,Vishpal,Amer,john,lailani,Tricia,Celina,Patrick,Jacob,elisabeth,Kevin,Liban,Marie,Charlene,Orit,Alan,Lina,Larry,Jessica,Eric,Miria
ne,Jeff,christina,Shannon,Angela,Angela,Elaine,Helen,Nina,Karen,Georgina,Kellie,Terry,frauke,Simone,Hilde,Leah,Laine,kirsten,Anna,Babs,Gerlind
e,Holly,lester,Lisa,Ann,Nichol,Jane,Beatriz,corina,nanon,Isabelle,Lynne,doug,AMY,Kim,HELIDA,Cameron,Wendy,Tara,James,Heloise,Gabriel,Jodie,Je
remy,Helga,Eleanor,Miss,Marie,Lisa,Priska,Katrine,Lisa,Sabrina,prof,KeithMichelle,Klm,antssa,John,Heidi,T,luisa,Nadine,Tina,Damall,Katherine,K
athryn,Veronique,Erica,L,Diana,Emma,Marina,Natalie,Brenda,Nita,Marian,Kevin,cari,Cassandra,Christof and Heidi,Ina,Lisa,Camille and Carmen,Ging
er,breon,Marion,Pia,Dr. Donald,Rebecca,Monique,lilia,Lainey,Charlene,Fiona,burt,Stanford,ruth,Courtney,Anthony,Eleanor,GAIA,Zane,Beate,BALA,Mr
s,Vanessa,Amanda,alex,T,Alva and Martin,Anett,KERRY,Deedee,Katie,Marina,camilla,pirunkit,Kathrin,Kate,Male,verena,Marie-Christine,Gabriella,va
lerie et nicolas,Nicole,Renee,Nicole,Joachim,Monica,Nanci,Laura,clara and mike,Sarah,leigh,Nuria,Tejal,Ignacio,ZOE,nhan,alan,lydia,Tracey,Anj
a,Jennifer,Holly,megan,Tarah,Gerardo,Joanne,Margaret,Laura,Whitney,Ravinder,Pam,Celina,Heather,Kathryn,Michele,Craig,Kim,marla,Elaine,Madison,
Amanda,Krista,Sarah,Sarah,Christine,mary,Helena,nina,Mark,alice and rudolf,Costanza,Yoko,Barbara,Kit,linda,Christyna,Alicja,Rachel,Rachel,Jan,
Karin,Sharon,Anna,Laura,Yana,Katherine,Therese,Francoise,Corinne,Ec,Carmen,Sandrine,asuncion,Sophie,Henrietta,DD,Jennifer,samuel,Angelina,Pat

```

6) Create separate views for VISA and Mastercard

```
>create view visa as select * from sales where payment_type='Visa';
hive> create view mastercard as select * from sales where payment_type='Mastercard';
```

```
hive> select * from visa;
OK
Product1      1200    Visa     Betina   Parkville      MO      United States
Product1      1200    Visa     Gouya    Echuca       Victoria      Australia
Product2      3600    Visa     Gerd W   Cahaba Heights  AL      United States
Product1      1200    Visa     LAURENCE   Mickleton      NJ      United States
Product1      1200    Visa     Aidan    Chatou       Ile-de-France  France
Product1      1200    Visa     Georgia  Eagle        ID      United States
Product1      1200    Visa     Richard  Riverside      NJ      United States
Product1      1200    Visa     Janet    Ottawa       Ontario Canada
Product2      3600    Visa     Sabine   London       England United Kingdom
Product1      1200    Visa     Jeremy   Manchester      England United Kingdom
Product1      1200    Visa     asuman   Chula Vista    CA      United States
Product1      1200    Visa     Lisa     Sugar Land     TX      United States
Product1      1200    Visa     chris    London       England United Kingdom
Product1      1200    Visa     Maxine   Morton IL     United States
Product1      1200    Visa     Family   Los Gatos     CA      United States
Product2      3600    Visa     James    Burpengary    Queensland Australia
Product1      1200    Visa     jennifer Phoenix AZ     United States
Product1      1200    Visa     Mehmet   Fatih        Helsingor Frederiksborg Denmark
Product2      3600    Visa     Anabela Flossmoor    IL      United States
Product2      3600    Visa     Christiane Delray Beach    FL      United States
Product1      1200    Visa     Karina   Fort Lauderdale FL      United States
Product1      1200    Visa     Angela   Ankeny IA     United States
```

```
hive> select * from mastercard;
OK
Product1      1200    Mastercard carolina Basildon      England United Kingdom
Product1      1200    Mastercard Federica e Andrea Astoria OR     United States
Product1      1200    Mastercard Fleur Peoria IL     United States
Product1      1200    Mastercard adam Martin TN     United States
Product1      1200    Mastercard Renee Elisabeth Tel Aviv Tel Aviv Israel
Product1      1200    Mastercard Sean Shavano Park TX     United States
Product1      1200    Mastercard Nicola Roodepoort Gauteng South Africa
Product1      1200    Mastercard Lena Kuopio Ita-Suomen Laani Finland
Product1      1200    Mastercard Katherine New York NY     United States
Product1      1200    Mastercard Linda Miami FL     United States
Product1      1200    Mastercard SYLVIA Vesenaz Geneve Switzerland
Product1      1200    Mastercard Stephanie Badhoevedorp Noord-Holland Netherlands
Product1      1200    Mastercard Anneli Houston TX     United States
Product1      1200    Mastercard Marie Ball Ground GA     United States
Product1      1200    Mastercard Sari Newbury England United Kingdom
Product1      1200    Mastercard simone Kobenhavn Kobenhavn Denmark
Product1      1200    Mastercard Frank Melbourne Victoria Australia
Product1      1200    Mastercard Nikki New Rochelle NY     United States
Product1      1200    Mastercard June Beachwood OH     United States
Product1      1200    Mastercard Bonnie Saltsjobaden Stockholm Sweden
Product1      1200    Mastercard Chrissy W Lebanon NH     United States
Product1      1200    Mastercard Tamar Headley England United Kingdom
Product2      3600    Mastercard Deirdre Lausanne Vaud Switzerland
Product1      1200    Mastercard Rosanna Southampton England United Kingdom
```

7) Show all the transactions done in Seattle

```
hive> select * from sales where city='Seattle';
```

```
hive> select * from sales where city='Seattle';
OK
Product1      1200    Visa    Vicki and Bill Seattle WA      United States
Product1      1200    Visa    Craig   Seattle WA      United States
Product1      1200    Visa    Kim     Seattle WA      United States
Product2      3600    Visa    cristina Seattle WA      United States
Product1      1200    Amex   Justine Seattle WA      United States
Product1      1200    Visa    Reto    Seattle WA      United States
```

8) Find the max number of transactions done within the state of Ontario

```
hive> select max(price) from sales where state='Ontario';
```

```
Total MapReduce CPU Time Spent: 3 seconds 880 msec
OK
3600
```

9) Find the number of transactions whose price is in between 1500-3600

```
hive> select count(price) from sales where price >=1500 and price<=3600;
```

```
Total MapReduce CPU Time Spent: 4 seconds 250 msec
OK
138
```

10) List all the transactions done in the United States using Mastercard

```
hive> select * from sales where country='United States' and payment_type='Mastercard';
```

```
hive> select * from sales where country='United States' and payment_type='Mastercard';
OK
Product1      1200    Mastercard   Federica e Andrea Astoria OR      United States
Product1      1200    Mastercard   Fleur   Peoria IL      United States
Product1      1200    Mastercard   adam     Martin TN      United States
Product1      1200    Mastercard   Sean     Shavano Park TX      United States
Product1      1200    Mastercard   Katherine New York NY      United States
Product1      1200    Mastercard   Linda     Miami FL      United States
Product1      1200    Mastercard   Anneli    Houston TX      United States
Product1      1200    Mastercard   Marie    Ball Ground GA      United States
Product1      1200    Mastercard   Nikki    New Rochelle NY      United States
Product1      1200    Mastercard   June     Beachwood OH      United States
Product1      1200    Mastercard   chrissy  W Lebanon NH      United States
Product2      3600    Mastercard   Valda    Irvine CA      United States
Product1      1200    Mastercard   ZENA     Honolulu HI      United States
Product1      1200    Mastercard   Tod     Coral Gables FL      United States
Product1      1200    Mastercard   Alexis   Genoa IL      United States
Product1      1200    Mastercard   catherine Keller VA      United States
Product1      1200    Mastercard   Bruce and Camille Clinton NJ      United States
Product1      1200    Mastercard   Ellen    Owensboro KY      United States
Product1      2100    Mastercard   Gerald   Mahopac NY      United States
Product1      1200    Mastercard   Jamie    Houston TX      United States
Product1      1200    Mastercard   Clare    Lafayette CA      United States
Product1      1200    Mastercard   Tracy    Louisville KY      United States
```