

PRACTICAL 7 - Perform importing and exporting of data between SQL and Hadoop using Sqoop

Before running Sqoop commands, it's essential to ensure that Sqoop services are started on the Cloudera manager.

Step 1: Connect to MySQL

Open a terminal and connect to MySQL using the following command:

PASSWORD - CLOUDERA

```
[cloudera@quickstart ~]$ mysql -D retail_db -u retail_dba -p
Enter password:
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 15
Server version: 5.1.73 Source distribution

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> █
```

Step 2: List Tables in MySQL

List the tables in the retail_db database:

```
mysql> show tables;
+-----+
| Tables_in_retail_db |
+-----+
| categories           |
| customers            |
| departments          |
| order_items          |
| orders               |
| products             |
+-----+
6 rows in set (0.00 sec)
```

Step 3: Select Data from MySQL Table

Select data from the customers table to verify the existing data:

```
mysql> select * from customers;
```

Step 4: Open a New Terminal and Run Sqoop Import

Open a new terminal and run the Sqoop import command to transfer data from MySQL to Hadoop. The command connects to MySQL, specifies the table, username, password, and target directory:

```
cloudera@quickstart:~
File Edit View Search Terminal Help
[cloudera@quickstart ~]$ sqoop import --connect jdbc:mysql://localhost/retail_db --table customers --username retail_dba --password cloudera --target-dir /sqoop_import_data -m 1

sqoop import --connect jdbc:mysql://localhost/retail_db --table customers --username retail_dba --password cloudera --target-dir /sqoop_import_data -m 1
```

Step 5: View Imported Data in Hadoop

Check if the data has been successfully transferred from MySQL to Hadoop. Use the following command to view the content of the imported data file:

```
[cloudera@quickstart ~]$ hadoop fs -cat /sqoop_import_data/part-m-000000
```

This command will display the contents of the imported data file. Ensure that the data has been transferred correctly.

```
12273,Mary,Dunn,XXXXXXXXXX,XXXXXXXXXX,1020 Misty Hills Round,Caguas,PR,00723
12274,Joyce,Smith,XXXXXXXXXX,XXXXXXXXXX,5492 Blue View,Staten Island,NY,10314
12275,Mary,Dudley,XXXXXXXXXX,XXXXXXXXXX,4212 Honey Trail,Modesto,CA,95355
12276,Martha,Smith,XXXXXXXXXX,XXXXXXXXXX,4385 Round Place,Caguas,PR,00725
12277,Mary,Baxter,XXXXXXXXXX,XXXXXXXXXX,629 Grand Inlet,Pacoima,CA,91331
12278,Karen,Smith,XXXXXXXXXX,XXXXXXXXXX,3453 Honey Woods,Philadelphia,PA,19104
12279,Mary,Dunn,XXXXXXXXXX,XXXXXXXXXX,5860 Grand Limits,Caguas,PR,00725
12280,John,Smith,XXXXXXXXXX,XXXXXXXXXX,1550 Rustic Grove Farms,Tallahassee,FL,32308
12281,Scott,Miller,XXXXXXXXXX,XXXXXXXXXX,8620 Burning Isle,Louisville,KY,40214
12282,Mary,Wilson,XXXXXXXXXX,XXXXXXXXXX,2781 Emerald Thicket,Caguas,PR,00725
12283,Willie,Pena,XXXXXXXXXX,XXXXXXXXXX,6654 Green Crest,San Juan,PR,00926
12284,Mary,Smith,XXXXXXXXXX,XXXXXXXXXX,1185 Rustic River Thicket,New Haven,CT,06511
12285,Patrick,Mcgee,XXXXXXXXXX,XXXXXXXXXX,2059 Sunny Cape,Caguas,PR,00725
12286,Mary,Smith,XXXXXXXXXX,XXXXXXXXXX,5284 Quiet Field,Baltimore,MD,21224
12287,Robert,Lee,XXXXXXXXXX,XXXXXXXXXX,5387 Amber Campus,Caguas,PR,00725
12288,Karen,Smith,XXXXXXXXXX,XXXXXXXXXX,1726 Velvet Thicket,Algonquin,IL,60102
12289,Andrea,Price,XXXXXXXXXX,XXXXXXXXXX,6471 Dusty Limits,Caguas,PR,00725
12290,Mary,Hawkins,XXXXXXXXXX,XXXXXXXXXX,3060 Emerald Crossing,Enfield,CT,06082
12291,Jennifer,Sims,XXXXXXXXXX,XXXXXXXXXX,3289 Thunder Prairie Inlet,Caguas,PR,00725
12292,Doris,May,XXXXXXXXXX,XXXXXXXXXX,7291 Thunder Hills Knoll,Spring Valley,CA,91977
12293,Mary,Smith,XXXXXXXXXX,XXXXXXXXXX,6764 Harvest View Point,Las Vegas,NV,89117
12294,Theresa,Reid,XXXXXXXXXX,XXXXXXXXXX,3236 Grand Carrefour,Mission Viejo,CA,92692
12295,Mary,Fischer,XXXXXXXXXX,XXXXXXXXXX,275 Heather Rabbit Parkway,Caguas,PR,00725
12296,Anna,Smith,XXXXXXXXXX,XXXXXXXXXX,7596 Silent Mews,Orlando,FL,32822
12297,Mary,Simpson,XXXXXXXXXX,XXXXXXXXXX,8428 Thunder Private,Lenoir,NC,28645
12298,Mary,Harper,XXXXXXXXXX,XXXXXXXXXX,2078 Little Forest Corner,Caguas,PR,00725
12299,Randy,Smith,XXXXXXXXXX,XXXXXXXXXX,9640 Golden Hill,Chicago,IL,60660
12300,Mary,Lindsey,XXXXXXXXXX,XXXXXXXXXX,577 Old Branch Jetty,Roswell,GA,30075
12301,John,Smith,XXXXXXXXXX,XXXXXXXXXX,4393 Noble Creek Beach,Caguas,PR,00725
12302,Donald,Sampson,XXXXXXXXXX,XXXXXXXXXX,8550 Red Oak Bank,Austin,TX,78753
12303,Mary,Smith,XXXXXXXXXX,XXXXXXXXXX,2357 Cinder Anchor Route,Caguas,PR,00725
12304,David,Tran,XXXXXXXXXX,XXXXXXXXXX,2578 Amber Barn Turnabout,Pasadena,MD,21122
12305,Stephanie,Leblanc,XXXXXXXXXX,XXXXXXXXXX,164 Dewy Nook,Caguas,PR,00725
12306,Juan,Smith,XXXXXXXXXX,XXXXXXXXXX,2484 Golden Wagon Pointe,Goose Creek,SC,29445
12307,Mary,Glover,XXXXXXXXXX,XXXXXXXXXX,6940 Pleasant Zephyr Via,Caguas,PR,00725
12308,Joseph,Smith,XXXXXXXXXX,XXXXXXXXXX,355 Wishing Rise Ledge,Chicago,IL,60644
12309,Barbara,Pena,XXXXXXXXXX,XXXXXXXXXX,9414 Fallen Hickory Wood,Chicago,IL,60610
12310,Ralph,Nielsen,XXXXXXXXXX,XXXXXXXXXX,6639 Clear Fawn Grounds,Caguas,PR,00725
12311,Mary,Smith,XXXXXXXXXX,XXXXXXXXXX,7368 Blue Swale,Los Angeles,CA,90066
12312,Jessica,Figueroa,XXXXXXXXXX,XXXXXXXXXX,1757 Hidden Beacon Highway,Gaithersburg,MD,20878
12313,Andrea,Wang,XXXXXXXXXX,XXXXXXXXXX,5717 Quiet Dell,Chandler,AZ,85224
12314,Bruce,Smith,XXXXXXXXXX,XXXXXXXXXX,9283 Hidden Elk Terrace,Caguas,PR,00725
12315,Mary,Jones,XXXXXXXXXX,XXXXXXXXXX,1321 Easy Embers Lane,Santa Fe,NM,87505
12316,Kathy,Garcia,XXXXXXXXXX,XXXXXXXXXX,3544 Velvet Crescent,Chicago,IL,60615
12317,Shawn,Cross,XXXXXXXXXX,XXXXXXXXXX,1981 Honey Nectar Line,Caguas,PR,00725
12318,Mary,Smith,XXXXXXXXXX,XXXXXXXXXX,5945 Umber Crossing,Saint Paul,MN,55106
12319,Laura,Woodward,XXXXXXXXXX,XXXXXXXXXX,6231 Fallen Range,Caguas,PR,00725
12320,Mary,Smith,XXXXXXXXXX,XXXXXXXXXX,1811 Hazy Oak Subdivision,Elyria,OH,44035
```