

## 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