MySQL:

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1. Connect to MySQL:

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[root@ETLoffload]$ mysql -u root -p

(password: Dees\_12345)

2. Create a Database in MySQL:

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mysql> create database iot;

3. Use the iot database:

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mysql> use iot;

4. Create a table called greenhouse in iot database of MySQL:

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mysql> create table greenhouse(DateTime INT primary key,Consumption\_kW decimal(10,9),Generator\_kW decimal(8,8),Heater\_kW decimal(9,9),Office\_kW decimal(7,7),AC\_kW decimal(9,9),Garage\_Door\_kW decimal(7,7),Motor\_Pump\_kW decimal(9,9),Solar\_kW decimal(9,9),temperature decimal(9,5),icon varchar(50),humidity decimal(5,5),Light\_Intensity decimal(9,2),summary varchar(50),apparent\_Temperature decimal(9,5),pressure decimal(9,5),windSpeed decimal(9,5));

HIVE:(Open a new terminal and connect to hive)

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5. Create a database called userdb:

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hive> create database userdb;

6. Go to userdb:

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hive> use userdb;

7. Create a table named iot in userdb database in Hive:

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hive> create table iot(DateTime INT,Consumption\_kW decimal(10,9),Generator\_kW decimal(8,8),Heater\_kW decimal(9,9),Office\_kW decimal(7,7),AC\_kW decimal(9,9),Garage\_Door\_kW decimal(7,7),Motor\_Pump\_kW decimal(9,9),Solar\_kW decimal(9,9),temperature decimal(9,5),icon string,humidity decimal(5,5),Light\_Intensity decimal(9,2),summary string,apparent\_Temperature decimal(9,5),pressure decimal(9,5),windSpeed decimal(9,5)) row format delimited fields terminated by ',';

8. Load data into iot table in Hive:

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hive> load data local inpath '/home/cloudera/greenhouse.txt' overwrite into table iot;

9. Check few records of iot table:

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hive> select \* from iot limit 10;

SCOOP: (open a new terminal)

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10. Sqoop-Export to export iot table from HDFS to greenhouse table of MySQL:

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[root@ETLoffload]$ sqoop export \

--connect jdbc:mysql://localhost:3306/iot \

--username root \

--password cloudera \

--table greenhouse \

--export-dir /user/hive/warehouse/userdb.db/iot

MySQL: (come back to MySQL terminal)

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12. Display records of greenhouse table:

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mysql> select \* from greenhouse LIMIT 10;

13. Now exit from MySQL:

mysql> quit;

SQOOP: (Go back to Scoop terminal)

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14. To check MySQL databases using Sqoop:

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[root@ETLoffload]$ sqoop list-databases \

-- connect jdbc:mysql://localhost:3306/ \

--username root --password cloudera;

15. To check MySQL tables present in iot database:

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[root@ETLoffload]$ sqoop list-tables \

--connect jdbc:mysql://localhost:3306/iot \

--username root --password cloudera;

16. To check MySQL table data using Sqoop:

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[root@ETLoffload]$ sqoop eval \

--connect jdbc:mysql://localhost:3306/iot \

--username root --password cloudera \

--query "select \* from greenhouse limit 10";

Import Data from MySQL to HDFS:

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17. To import greenhouse table from MySQL to a directory in HDFS:

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[root@ETLoffload]$ sqoop import \

--connect jdbc:mysql://localhost:3306/iot \

--username root \

--password cloudera \

--table greenhouse \

--target-dir /user/cloudera/sqoop\_import

18. To list files imported from MySQL:

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[root@ETLoffload]$ hdfs dfs -ls /user/cloudera/scoop\_import/

19. To read the content of a file “part-m-00000” from “sqoop\_import" directory:

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[root@ETLoffload]$ hdfs dfs -cat /user/cloudera/sqoop\_import/part-m-00000

Note: Similarly, we can see other “part-m” files also.