**Sqoop – Import**

## **Syntax**

The following syntax is used to import data into HDFS.

$ sqoop import (generic-args) (import-args)

$ sqoop-import (generic-args) (import-args)

### **Example**

Let us take an example of three tables named as **emp**, **emp\_add**, and **emp\_contact**, which are in a database called userdb in a MySQL database server.

The three tables and their data are as follows.

Open Command Prompt and the Type *mysql -u root -p* then enter your password

Creating Database and tables in it using following commands :

1. CREATE DATABASE expt;
2. use expt;
3. CREATE TABLE emp(id INT NOT NULL PRIMARY KEY,name VARCHAR(20),deg VARCHAR(20),salary INT,dept VARCHAR(10));
4. CREATE TABLE emp\_add(id INT NOT NULL PRIMARY KEY,hno VARCHAR(20),street VARCHAR(20),city VARCHAR(10));
5. CREATE TABLE emp\_contact(id INT NOT NULL PRIMARY KEY,phno INT(20),email VARCHAR(50));
6. INSERT INTO emp VALUES(1,'gopal','manager',50000,'TP'),(2,'manisha','Proof reader',30000,'AC'),(3,'prasanth','Admin',25000,'TP');
7. INSERT INTO emp\_add VALUES(1,'288A','pgutta','hyd'),(2,'108I','old city','cpn'),(3,'720X','hitec','mumbai');
8. INSERT INTO emp\_contact VALUES(1,2356742,'gopal@tp.com'),(2,1661663,'manisha@tp.com'),(3, 9988774,'prasanth@ac.com');

## **Importing a Table**

Sqoop tool ‘import’ is used to import table data from the table to the Hadoop file system as a text file or a binary file.

The following command is used to import the **emp** table from MySQL database server to HDFS.

sqoop import --connect jdbc:mysql://localhost:3306/expt --driver com.mysql.jdbc.Driver --username root -P --table emp --m 1

To verify the imported data in HDFS, use the following command.

%HADOOP\_HOME%/bin/hadoop fs -cat /emp/part-m-\*

## **Importing into Target Directory**

We can specify the target directory while importing table data into HDFS using the Sqoop import tool.

Following is the syntax to specify the target directory as option to the Sqoop import command.

--target-dir <new or exist directory in HDFS>

The following command is used to import **emp\_add** table data into ‘/queryresult’ directory.

sqoop import --connect jdbc:mysql://localhost:3306/expt --driver com.mysql.jdbc.Driver --username root -P --table emp\_add --m 1 --target-dir /queryresult

The following command is used to verify the imported data in /queryresult directory form **emp\_add** table.

%HADOOP\_HOME%/bin/hadoop fs -cat /queryresult/part-m-\*

## **Import Subset of Table Data**

We can import a subset of a table using the ‘where’ clause in Sqoop import tool. It executes the corresponding SQL query in the respective database server and stores the result in a target directory in HDFS.

The syntax for where clause is as follows.

--where <condition>

The following command is used to import a subset of **emp\_add** table data. The subset query is to retrieve the employee id and address, who lives in cpn city.

sqoop import --connect jdbc:mysql://localhost:3306/expt --driver com.mysql.jdbc.Driver --username root -P --table emp\_add --m 1 --where "city='cpn'" --target-dir /wherequery

The following command is used to verify the imported data in /wherequery directory from the **emp\_add** table.

%HADOOP\_HOME%/bin/hadoop fs -cat /wherequery/part-m-\*

## **SQOOP - EXPORT**

## **Syntax**

The following is the syntax for the export command.

$ sqoop export (generic-args) (export-args)

$ sqoop-export (generic-args) (export-args)

### **Example**

Let us take an example of the employee data in file, in HDFS. The employee data is available in **emp\_data** file in ‘emp/’ directory in HDFS. The **emp\_data** is as follows.

It is mandatory that the table to be exported is created manually and is present in the database from where it has to be exported.

The following query is used to create the table ‘employee’ in mysql command line.

$ mysql -u root -p

Enter your Password : \*\*\*\*\*\*\*\*\*

mysql> CREATE DATABASE export;

mysql> USE export;

mysql> CREATE TABLE employee (

id INT NOT NULL PRIMARY KEY,

name VARCHAR(20),

deg VARCHAR(20),

salary INT,

dept VARCHAR(10));

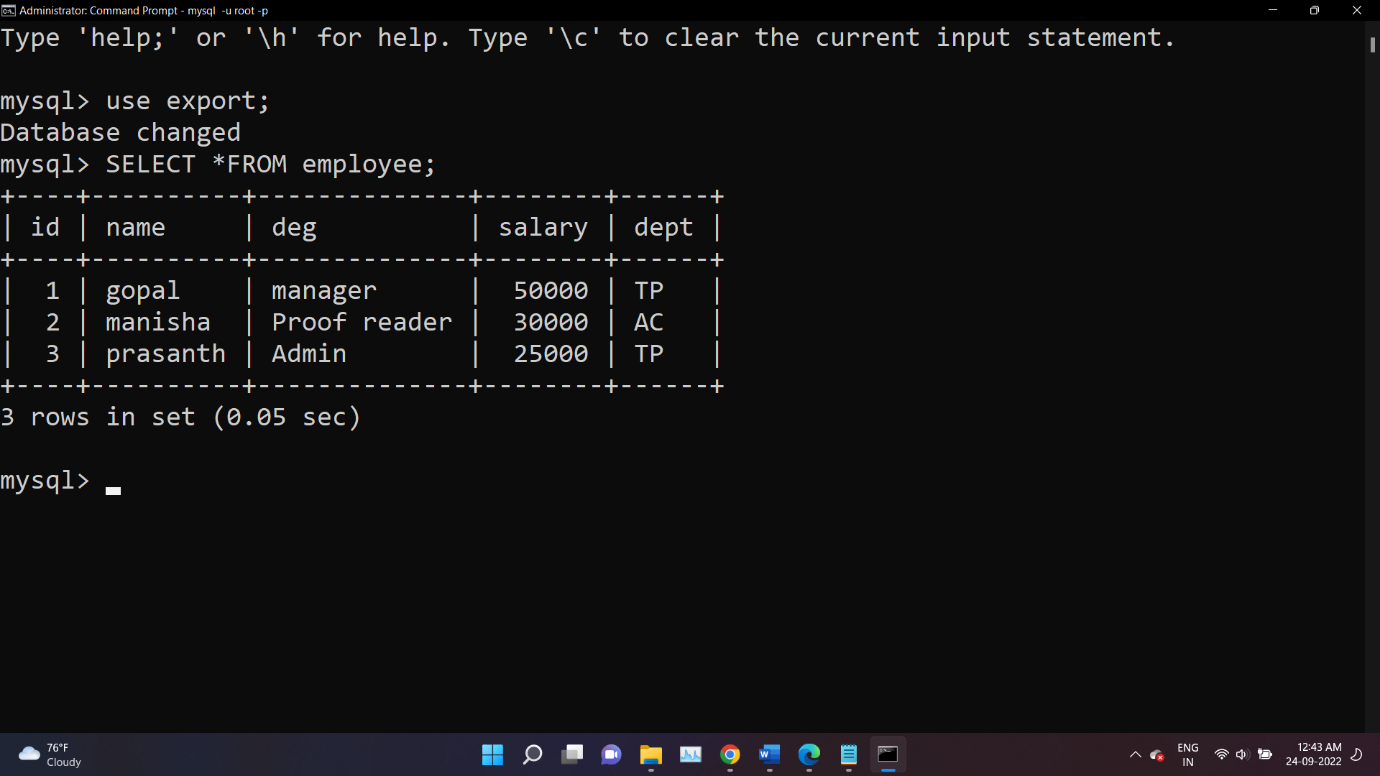
The following command is used to export the table data (which is in */queryresult1* file on HDFS) to the employee table in db database of Mysql database server.

sqoop export --connect jdbc:mysql://localhost:3306/export --driver com.mysql.jdbc.Driver --username root -P --table employee --export-dir /queryresult1

The following command is used to verify the table in mysql command line.

mysql>select \* from employee;

If the given data is stored successfully, then you can find the following table of given employee data.



**Conclusion:**

We installed and executed basic commands of Hadoop eco system component Sqoop.