Sqoop Export Practical - Cloudera:

Sqoop can be used to export data seamlessly from HDFS into RDBMS systems. Sqoop provides many options to handle different scenarios. Many of them will be explained in multiple tutorials with examples. This Sqoop tutorial will cover simple export, export with delimiter, export specific columns, export with update only and export with upsert.

Generic Arguments to export command

Attribute	Description
--export-dir	This is used to specify HDFS directory from where data need to be exported.
--table	This is used to specify RDBMS table name where data need to be exported.

Scenario 1:

1. Create orders_data table in mysql

2. run the export command

sqoop export --connect jdbc:mysql://localhost:3306/retail_db --username root --password cloudera --table orders_data --export-dir /sqoop_practice_m1/part-m-00000

3. go to mysql and check the data available there.

Scenario 2:

"--input-fields-terminated-by" can be used to specify specific delimiter present in input data file. I

```
sqoop export \
 --connect jdbc:mysql://localhost:3306/retail_db \
 --username root \
 --password cloudera \
 --table cards_Transactions \
```

--export-dir /exportdata/cards_transactions.csv

--input-fields-terminated-by ","

Scenario 3:

--columns parameter to fetch the subset of columns:

sqoop export --connect jdbc:mysql://localhost:3306/retail_db --username root --password cloudera --table orders_data --export-dir /sqoop_practice_m1/part-m-00000 --columns order_id,order_Status

Scenario 4:

If "--update-key" attribute is used without "--update-mode" then it will only update existing data on specified column but it will not insert any new rows

sqoop export --connect jdbc:mysql://localhost:3306/retail_db --username root --password cloudera --table orders_data --export-dir /sqoop_practice_m1/part-m-00000 --update-key order_id

scenario 5:

If "--update-key" attribute is used along with "--update-mode allowinsert" then it will not only update existing data on specified column but also insert new rows.

sqoop export --connect jdbc:mysql://localhost:3306/retail_db --username root --password cloudera --table orders_data --export-dir /sqoop_practice_m1/part-m-00000 --update-key order_id --update-mode allowinsert

Mysql Database :

Creating a table from existing table for practical:

mysql> create table orders_data as select * from orders;

To see the schema in Mysql :

```
mysql> describe orders;
+-------------------+-------------+------+-----+---------+----------------+
| Field             | Type        | Null | Key | Default | Extra          |
+-------------------+-------------+------+-----+---------+----------------+
| order_id          | int(11)     | NO   | PRI | NULL    | auto_increment |
| order_date        | datetime    | NO   |     | NULL    |                |
| order_customer_id | int(11)     | NO   |     | NULL    |                |
| order_status      | varchar(45) | NO   |     | NULL    |                |
+-------------------+-------------+------+-----+---------+----------------+
4 rows in set (0.11 sec)
```

Sqoop Export command Execution:

Exporting the data to Mysql orders_Data table from the file created in Sqoop_practice_1 folder

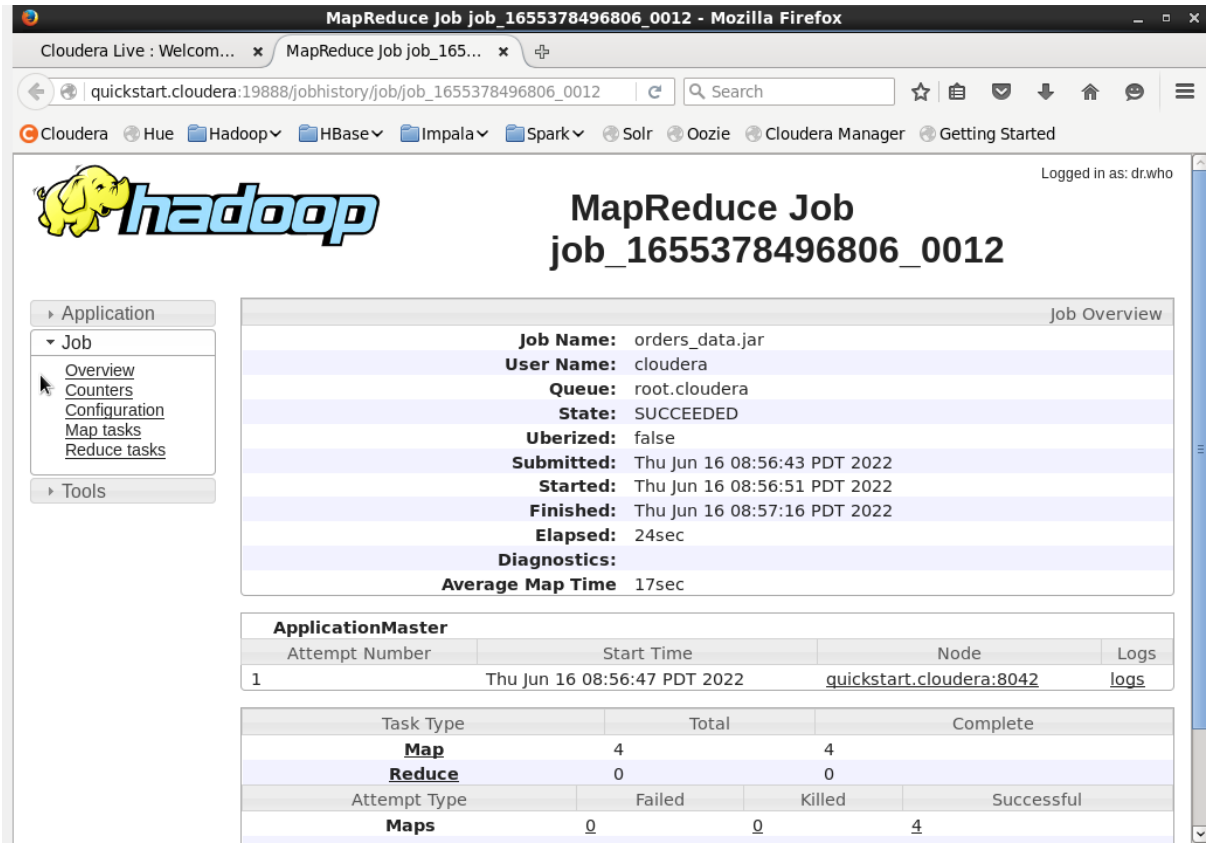
```
[cloudera@quickstart ~]$ sqoop export  --connect jdbc:mysql://localhost:3306/retail_db  --username root  --password cloudera
 --table orders_data  --export-dir /sqoop_practice_m1/part-m-00000
Warning: /usr/lib/sqoop/../accumulo does not exist! Accumulo imports will fail.
Please set $ACCUMULO_HOME to the root of your Accumulo installation.
22/06/16 08:56:26 INFO sqoop.Sqoop: Running Sqoop version: 1.4.6-cdh5.13.0
22/06/16 08:56:26 WARN tool.BaseSqoopTool: Setting your password on the command-line is insecure. Consider using -P instead.
22/06/16 08:56:26 INFO manager.MySQLManager: Preparing to use a MySQL streaming resultset.
22/06/16 08:56:26 INFO tool.CodeGenTool: Beginning code generation
22/06/16 08:56:27 INFO manager.SqlManager: Executing SQL statement: SELECT t.* FROM `orders_data` AS t LIMIT 1
22/06/16 08:56:27 INFO manager.SqlManager: Executing SQL statement: SELECT t.* FROM `orders_data` AS t LIMIT 1
22/06/16 08:56:27 INFO orm.CompilationManager: HADOOP_MAPRED_HOME is /usr/lib/hadoop-mapreduce
Note: /tmp/sqoop-cloudera/compile/a0c71c9e57bf0585d255fac898bee458/orders_data.java uses or overrides a deprecated API.
Note: Recompile with -Xlint:deprecation for details.
22/06/16 08:56:29 INFO orm.CompilationManager: Writing jar file: /tmp/sqoop-cloudera/compile/a0c71c9e57bf0585d255fac898bee458
/orders_data.jar
22/06/16 08:56:29 INFO mapreduce.ExportJobBase: Beginning export of orders_data
22/06/16 08:56:29 INFO Configuration.deprecation: mapred.job.tracker is deprecated. Instead, use mapreduce.jobtracker.address
22/06/16 08:56:31 INFO Configuration.deprecation: mapred.reduce.tasks.speculative.execution is deprecated. Instead, use mapre
duce.reduce.speculative
22/06/16 08:56:31 INFO Configuration.deprecation: mapred.map.tasks.speculative.execution is deprecated. Instead, use mapreduc
e.map.speculative
```

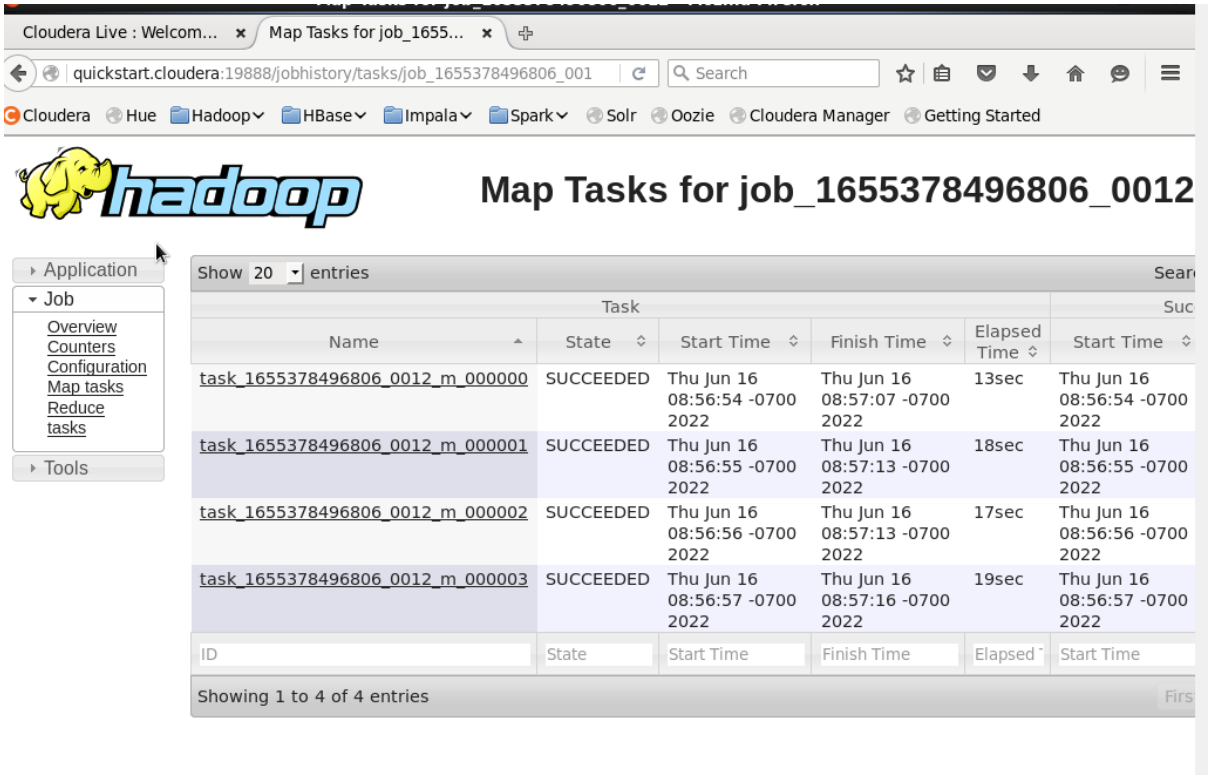
Sqoop Export logs:

Login to the highlighted URL to see the Sqoop Job status

```
File  Edit  View  Search  Terminal  Help
22/06/16 08:56:27 INFO manager.SqlManager: Executing SQL statement: SELECT t.* FROM `orders_data` AS t LIMIT 1
22/06/16 08:56:27 INFO manager.SqlManager: Executing SQL statement: SELECT t.* FROM `orders_data` AS t LIMIT 1
22/06/16 08:56:27 INFO orm.CompilationManager: HADOOP_MAPRED_HOME is /usr/lib/hadoop-mapreduce
Note: /tmp/sqoop-cloudera/compile/a0c71c9e57bf0585d255fac898bee458/orders_data.java uses or overrides a deprecated API.
Note: Recompile with -Xlint:deprecation for details.
22/06/16 08:56:29 INFO orm.CompilationManager: Writing jar file: /tmp/sqoop-cloudera/compile/a0c71c9e57bf0585d255fac898bee458
/orders_data.jar
22/06/16 08:56:29 INFO mapreduce.ExportJobBase: Beginning export of orders_data
22/06/16 08:56:29 INFO Configuration.deprecation: mapred.job.tracker is deprecated. Instead, use mapreduce.jobtracker.address
22/06/16 08:56:31 INFO Configuration.deprecation: mapred.reduce.tasks.speculative.execution is deprecated. Instead, use mapre
duce.reduce.speculative
22/06/16 08:56:31 INFO Configuration.deprecation: mapred.map.tasks.speculative.execution is deprecated. Instead, use mapreduc
e.map.speculative
22/06/16 08:56:31 INFO Configuration.deprecation: mapred.map.tasks is deprecated. Instead, use mapreduce.job.maps
22/06/16 08:56:31 INFO client.RMProxy: Connecting to ResourceManager at /0.0.0.0:8032
22/06/16 08:56:41 INFO input.FileInputFormat: Total input paths to process : 1
22/06/16 08:56:41 INFO input.FileInputFormat: Total input paths to process : 1
22/06/16 08:56:41 INFO mapreduce.JobSubmitter: number of splits:4
22/06/16 08:56:41 INFO Configuration.deprecation: mapred.map.tasks.speculative.execution is deprecated. Instead, use mapreduc
e.map.speculative
22/06/16 08:56:42 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1655378496806_0012
22/06/16 08:56:44 INFO impl.YarnClientImpl: Submitted application application_1655378496806_0012
22/06/16 08:56:44 INFO mapreduce.Job: The url to track the job: http://quickstart.cloudera:8088/proxy/application_16553784968
06_0012/
22/06/16 08:56:44 INFO mapreduce.Job: Running job: job_1655378496806_0012
22/06/16 08:56:52 INFO mapreduce.Job: Job job_1655378496806_0012 running in uber mode : false
22/06/16 08:56:52 INFO mapreduce.Job:  map 0% reduce 0%
22/06/16 08:57:09 INFO mapreduce.Job:  map 25% reduce 0%
22/06/16 08:57:15 INFO mapreduce.Job:  map 75% reduce 0%
22/06/16 08:57:18 INFO mapreduce.Job:  map 100% reduce 0%
22/06/16 08:57:20 INFO mapreduce.Job: Job job_1655378496806_0012 completed successfully
22/06/16 08:57:20 INFO mapreduce.Job: Counters: 30
```

Once you login to the URL below page will be opened and click on Tasktype →map→logs





Click logs to see the errors on both succeeded or failure cases doing sqoop export execution.