

Big Data Hadoop & Spark Training

ASSINGNMENT 6- ASSIGNMENT ON DATA INGESTION TOOL
SQOOP

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TRANSFERRING DATA FROM HADOOP

You have a workflow of MySQL and mapreduce jobs that are generating data on Hadoop cluster, you need to transfer this data to your relational database for easy querying.

This can be done using **Export** command in sqoop (general syntax)

```
sqoop export
```

```
--connect "connection string"
```

```
--username root -P
```

```
--table "table name"
```

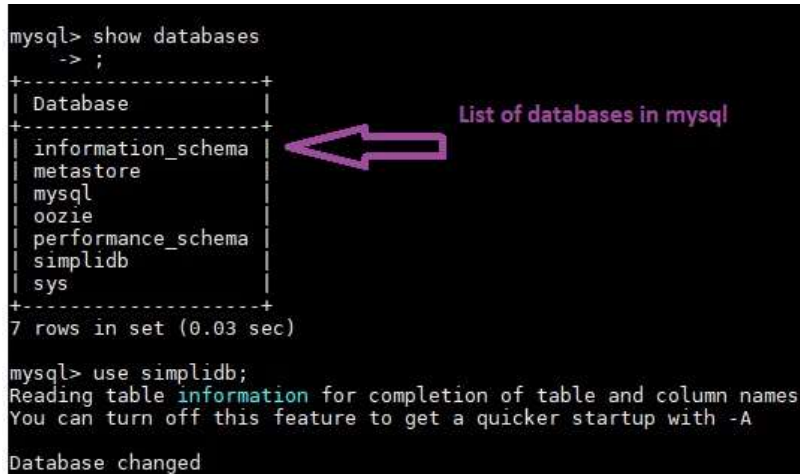
```
-- export -dir "output file"
```

The list of databases present in MySQL

```
mysql> show databases
-> ;
+-----+
| Database |
+-----+
| information_schema |
| metastore |
| mysql |
| oozie |
| performance_schema |
| simplidb |
| sys |
+-----+
7 rows in set (0.03 sec)

mysql> use simplidb;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
```



List of tables in simplidb database

```
mysql> show tables;
+-----+
| Tables_in_simplidb |
+-----+
| Person |
| employee |
+-----+
2 rows in set (0.00 sec)

mysql> █
```

Task 1: Use Sqoop tool to export data present in SQOOPOUTBYID folder made while demo of Import table

Here we have to export the below data from HDFS to MySql

```
[acadgild@localhost ~]$ hadoop fs -cat /sqoopout/part-m-00000
18/03/22 14:48:53 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
1,Shyam,Ram,Patna,Bihar
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ hadoop fs -cat /sqoopout/part-m-00001
18/03/22 14:49:16 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
2,Tanya,Priya,Whitefield,Bangalore
[acadgild@localhost ~]$ hadoop fs -cat /sqoopout/part-m-00002
18/03/22 14:49:23 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
3,James,Brown,New York,United States
[acadgild@localhost ~]$ hadoop fs -cat /sqoopout/part-m-00003
18/03/22 14:49:31 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
4,Jhon,Miller, Los Angeles ,United States
[acadgild@localhost ~]$
```

Fields marked in red are the records available in HDFS

Below is the screenshot of table Person in MySql

```
mysql> select * from Person;
Empty set (0.00 sec)

mysql>
```

Table Person is empty

As we can see that there is no data in MySql, so we will export data from HDFS to MySql using the below command.

sqoop export --connect jdbc:mysql://localhost/simplidb --table Person --username root -P --export-dir /sqoopoutbyid --columns "person_id,lname,fname,area,city"

- ✓ Here we are exporting data from HDFS present in "sqoopoutbyid" directory to MySql->simplidb database->table Person. We are specifying the column names where the data has to be loaded respectively.
- ✓ -Username: root
- ✓ -P : is the password for MySql
- ✓ Here all the records present in sqoopoutbyid folder will be transferred to MySql

```

You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ sqoop export --connect jdbc:mysql://localhost/simplydb --table Person --username root -P --export-dir /sqoopoutby
id --columns "person_id, lname, fname, area, city"
Warning: /home/acadgild/install/sqoop/sqoop-1.4.6.bin_hadoop-2.0.4-alpha/./hcatalog does not exist! HCatalog jobs will fail.
Please set $HCAT_HOME to the root of your HCatalog installation.
Warning: /home/acadgild/install/sqoop/sqoop-1.4.6.bin_hadoop-2.0.4-alpha/./accumulo does not exist! Accumulo imports will fail.
Please set $ACCUMULO_HOME to the root of your Accumulo installation.
18/03/22 14:54:56 INFO sqoop.Sqoop: Running Sqoop version: 1.4.6
Enter password:
18/03/22 14:55:00 INFO manager.MySQLManager: Preparing to use a MySQL streaming resultset.
18/03/22 14:55:00 INFO tool.CodeGenTool: Beginning code generation
Thu Mar 22 14:55:00 IST 2018 WARN: Establishing SSL connection without server's identity verification is not recommended. According to My
SQL 5.5.45+, 5.6.26+ and 5.7.6+ requirements SSL connection must be established by default if explicit option isn't set. For compliance w
ith existing applications not using SSL the verifyServerCertificate property is set to 'false'. You need either to explicitly disable SSL
by setting useSSL=false, or set useSSL=true and provide truststore for server certificate verification.
18/03/22 14:55:02 INFO manager.SqlManager: Executing SQL statement: SELECT t.* FROM 'Person' AS t LIMIT 1
18/03/22 14:55:02 INFO manager.SqlManager: Executing SQL statement: SELECT t.* FROM 'Person' AS t LIMIT 1
18/03/22 14:55:02 INFO orm.CompilationManager: HADOOP_MAPRED_HOME is /home/acadgild/install/hadoop/hadoop-2.6.5
Note: /tmp/sqoop-acadgild/compile/c11148e8b94a43ce81a81c50c6f22c7c/Person.java uses or overrides a deprecated API.
Note: Recompile with -Xlint:deprecation for details.
18/03/22 14:55:06 INFO orm.CompilationManager: Writing jar file: /tmp/sqoop-acadgild/compile/c11148e8b94a43ce81a81c50c6f22c7c/Person.jar
18/03/22 14:55:06 INFO mapreduce.ExportJobBase: Beginning export of Person
SLF4J: Class path contains multiple SLF4J bindings.
SLF4J: Found binding in [jar:file:/home/acadgild/install/hadoop/hadoop-2.6.5/share/hadoop/common/lib/slf4j-log4j12-1.7.5.jar!/org/slf4j/i
mpl/StaticLoggerBinder.class]
SLF4J: Found binding in [jar:file:/home/acadgild/install/hbase/hbase-1.2.6/lib/slf4j-log4j12-1.7.5.jar!/org/slf4j/impl/StaticLoggerBinder
.class]
SLF4J: See http://www.slf4j.org/codes.html#multiple_bindings for an explanation.
SLF4J: Actual binding is of type [org.slf4j.impl.Log4jLoggerFactory]
18/03/22 14:55:07 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where
applicable
18/03/22 14:55:07 INFO Configuration.deprecation: mapred.jar is deprecated. Instead, use mapreduce.job.jar
18/03/22 14:55:08 WARN mapreduce.ExportJobBase: Input path hdfs://localhost:8020/sqoopoutbyid does not exist
18/03/22 14:55:08 INFO Configuration.deprecation: mapred.reduce.tasks.speculative.execution is deprecated. Instead, use mapreduce.reduce.
speculative
18/03/22 14:55:08 INFO Configuration.deprecation: mapred.map.tasks.speculative.execution is deprecated. Instead, use mapreduce.map.specul

```

```

18/03/22 14:55:09 INFO Configuration.deprecation: mapred.map.tasks is deprecated. Instead, use mapreduce.job.maps
18/03/22 14:55:09 INFO client.RMProxy: Connecting to ResourceManager at localhost:127.0.0.1:8032
18/03/22 14:55:12 INFO mapreduce.JobSubmitter: Cleaning up the staging area /tmp/hadoop-yarn/staging/acadgild/.staging/job_1521704287346_
0007
18/03/22 14:55:12 ERROR tool.ExportTool: Encountered IOException running export job: org.apache.hadoop.mapreduce.lib.input.InvalidInputEx
ception: Input path does not exist: hdfs://localhost:8020/sqoopoutbyid
[acadgild@localhost ~]$ sqoop export --connect jdbc:mysql://localhost/simplydb --table Person --username root -P --export-dir /sqoopout -
-columns "person_id, lname, fname, area, city"
Warning: /home/acadgild/install/sqoop/sqoop-1.4.6.bin_hadoop-2.0.4-alpha/./hcatalog does not exist! HCatalog jobs will fail.
Please set $HCAT_HOME to the root of your HCatalog installation.
Warning: /home/acadgild/install/sqoop/sqoop-1.4.6.bin_hadoop-2.0.4-alpha/./accumulo does not exist! Accumulo imports will fail.
Please set $ACCUMULO_HOME to the root of your Accumulo installation.
18/03/22 14:57:12 INFO sqoop.Sqoop: Running Sqoop version: 1.4.6
Enter password:
18/03/22 14:57:19 INFO manager.MySQLManager: Preparing to use a MySQL streaming resultset.
18/03/22 14:57:19 INFO tool.CodeGenTool: Beginning code generation
Thu Mar 22 14:57:19 IST 2018 WARN: Establishing SSL connection without server's identity verification is not recommended. According to My
SQL 5.5.45+, 5.6.26+ and 5.7.6+ requirements SSL connection must be established by default if explicit option isn't set. For compliance w
ith existing applications not using SSL the verifyServerCertificate property is set to 'false'. You need either to explicitly disable SSL
by setting useSSL=false, or set useSSL=true and provide truststore for server certificate verification.
18/03/22 14:57:20 INFO manager.SqlManager: Executing SQL statement: SELECT t.* FROM 'Person' AS t LIMIT 1
18/03/22 14:57:20 INFO manager.SqlManager: Executing SQL statement: SELECT t.* FROM 'Person' AS t LIMIT 1
18/03/22 14:57:20 INFO orm.CompilationManager: HADOOP_MAPRED_HOME is /home/acadgild/install/hadoop/hadoop-2.6.5
Note: /tmp/sqoop-acadgild/compile/151896939d3262ba690cb49d988e2451/Person.java uses or overrides a deprecated API.
Note: Recompile with -Xlint:deprecation for details.
18/03/22 14:57:24 INFO orm.CompilationManager: Writing jar file: /tmp/sqoop-acadgild/compile/151896939d3262ba690cb49d988e2451/Person.jar
18/03/22 14:57:24 INFO mapreduce.ExportJobBase: Beginning export of Person
SLF4J: Class path contains multiple SLF4J bindings.
SLF4J: Found binding in [jar:file:/home/acadgild/install/hadoop/hadoop-2.6.5/share/hadoop/common/lib/slf4j-log4j12-1.7.5.jar!/org/slf4j/i
mpl/StaticLoggerBinder.class]
SLF4J: Found binding in [jar:file:/home/acadgild/install/hbase/hbase-1.2.6/lib/slf4j-log4j12-1.7.5.jar!/org/slf4j/impl/StaticLoggerBinder
.class]
SLF4J: See http://www.slf4j.org/codes.html#multiple_bindings for an explanation.
SLF4J: Actual binding is of type [org.slf4j.impl.Log4jLoggerFactory]
18/03/22 14:57:25 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where
applicable
18/03/22 14:57:25 INFO Configuration.deprecation: mapred.jar is deprecated. Instead, use mapreduce.job.jar
18/03/22 14:57:27 INFO Configuration.deprecation: mapred.reduce.tasks.speculative.execution is deprecated. Instead, use mapreduce.reduce.

```



```
18/03/22 14:57:31 INFO mapreduce.JobSubmitter: number of splits:4
18/03/22 14:57:31 INFO Configuration.deprecation: mapred.map.tasks.speculative.execution is deprecated. Instead, use mapreduce.map.speculative
18/03/22 14:57:31 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1521704287346_0008
18/03/22 14:57:32 INFO impl.YarnClientImpl: Submitted application application_1521704287346_0008
18/03/22 14:57:32 INFO mapreduce.Job: The url to track the job: http://localhost:8088/proxy/application_1521704287346_0008/
18/03/22 14:57:32 INFO mapreduce.Job: Running job: job_1521704287346_0008
18/03/22 14:57:49 INFO mapreduce.Job: Job job_1521704287346_0008 running in uber mode : false
18/03/22 14:57:49 INFO mapreduce.Job: map 0% reduce 0%
18/03/22 14:58:29 INFO mapreduce.Job: map 75% reduce 0%
18/03/22 14:58:30 INFO mapreduce.Job: map 100% reduce 0%
18/03/22 14:58:31 INFO mapreduce.Job: Job job_1521704287346_0008 completed successfully
18/03/22 14:58:31 INFO mapreduce.Job: Counters: 31
  File System Counters
    FILE: Number of bytes read=0
    FILE: Number of bytes written=510164
    FILE: Number of read operations=0
    FILE: Number of large read operations=0
    FILE: Number of write operations=0
    HDFS: Number of bytes read=893
    HDFS: Number of bytes written=0
    HDFS: Number of read operations=25
    HDFS: Number of large read operations=0
    HDFS: Number of write operations=0
  Job Counters
    Launched map tasks=4
    Other local map tasks=1
    Data-local map tasks=3
    Total time spent by all maps in occupied slots (ms)=148760
    Total time spent by all reduces in occupied slots (ms)=0
    Total time spent by all map tasks (ms)=148760
    Total vcore-milliseconds taken by all map tasks=148760
    Total megabyte-milliseconds taken by all map tasks=152330240
  Map-Reduce Framework
    Map input records=4
    Map output records=4
    Input split bytes=676
    Spilled Records=0
```

```

FILE: Number of bytes written=510164
FILE: Number of read operations=0
FILE: Number of large read operations=0
FILE: Number of write operations=0
HDFS: Number of bytes read=893
HDFS: Number of bytes written=0
HDFS: Number of read operations=25
HDFS: Number of large read operations=0
HDFS: Number of write operations=0
Job Counters
  Launched map tasks=4
  Other local map tasks=1
  Data-local map tasks=3
  Total time spent by all maps in occupied slots (ms)=148760
  Total time spent by all reduces in occupied slots (ms)=0
  Total time spent by all map tasks (ms)=148760
  Total vcore-milliseconds taken by all map tasks=148760
  Total megabyte-milliseconds taken by all map tasks=152330240
Map-Reduce Framework
  Map input records=4
  Map output records=4
  Input split bytes=676
  Spilled Records=0
  Failed Shuffles=0
  Merged Map outputs=0
  GC time elapsed (ms)=1854
  CPU time spent (ms)=9220
  Physical memory (bytes) snapshot=425029632
  Virtual memory (bytes) snapshot=8245329920
  Total committed heap usage (bytes)=130205568
File Input Format Counters
  Bytes Read=0
File Output Format Counters
  Bytes Written=0
18/03/22 14:58:31 INFO mapreduce.ExportJobBase: Transferred 893 bytes in 63.9257 seconds (13.9694 bytes/sec)
18/03/22 14:58:31 INFO mapreduce.ExportJobBase: Exported 4 records.
You have new mail in /var/spool/mail/acadgild
acadgild@localhost ~]$

```

In the below screen shot we can see that MySQL Table Person is updated with all the records from HDFS

```

mysql> select * from Person;
+-----+-----+-----+-----+-----+
| person_id | lname | fname | area | city |
+-----+-----+-----+-----+-----+
| 1 | Shyam | Ram | Patna | Bihar |
| 2 | Tanya | Priya | Whitefiled | Bangalore |
| 3 | James | Brown | New York | United States |
| 4 | Jhon | Miller | Los Angeles | United States |
+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql>

```

Task2: Use Sqoop tool to export data present in SQOOPOUT folder made while demo of Import table with parameter person_id =3.

Here we have to export the below data from HDFS to MySql

```
[acadgild@localhost ~]$ hadoop fs -ls sqoopoutbyid
18/03/22 13:33:09 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
Found 2 items
-rw-r--r-- 1 acadgild supergroup 0 2018-03-22 13:30 sqoopoutbyid/_SUCCESS
-rw-r--r-- 1 acadgild supergroup 37 2018-03-22 13:30 sqoopoutbyid/part-m-00000
[acadgild@localhost ~]$ hadoop fs -cat sqoopoutbyid/part-m-00000
18/03/22 13:33:33 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
3,James,Brown,New York,United States
```

There is a record with person_id as "3" in HDFS

Below is the screenshot of table Person in MySql

```
mysql> select * from Person;
+-----+-----+-----+-----+-----+
| person_id | lname | fname | area | city |
+-----+-----+-----+-----+-----+
| 1 | Shyam | Ram | Patna | Bihar |
| 2 | Tanya | Priya | Whitefiled | Bangalore |
| 4 | Jhon | Miller | Los Angeles | United States |
+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

As we can see that person_id =3 is not present in MySql, we will now export the data from HDFS to MySql and update the records in MySql Table Person.

To do this, we will use this command in HDFS

sqoop export --connect jdbc:mysql://localhost/simplidb --username root -P --export-dir sqoopoutbyid --table Person --update-key -person_id --update-mode allowinsert

- ✓ Here we are exporting data from HDFS present in "sqoopoutbyid" directory to MySql->simplidb database->table Person.
- ✓ We are using the update key to update the record with person_id 3 to existing table Person in simplidb database
- ✓ We are using "allowinsert" update mode, so that even if there is a record with person_id=3, data must be written to MySql database
 - The ability to conditionally insert a new row or update an existing one is an advanced database feature.

- this feature is available only for Oracle and non direct MYSQL exports.
- ✓ -Username: root
- ✓ -P : is the password for MySql
- ✓ Here all the records present in sqoopoutbyid folder will be transferred to MySql

```
[acagild@localhost ~]$ sqoop export --connect jdbc:mysql://localhost/simolddb --username root -P --export-dir sqoopoutbyid --table Person --update-key person_id --update-mode allowinsert
warning: /home/acagild/install/sqoop/sqoop-1.4.6/bin_hadoop-2.0.4-alpha/./hcatalog does not exist! HCatalog jobs will fail.
Please set $HCAT_HOME to the root of your HCatalog installation.
warning: /home/acagild/install/sqoop/sqoop-1.4.6/bin_hadoop-2.0.4-alpha/./accumulo does not exist! Accumulo imports will fail.
Please set $ACCUMULO_HOME to the root of your Accumulo installation.
18/03/22 13:57:45 INFO sqoop.Sqoop: Running Sqoop version: 1.4.6
Enter password:
18/03/22 13:58:04 INFO manager.MySQLManager: Preparing to use a MySQL streaming resultset.
18/03/22 13:58:04 INFO tool.CodeGenTool: Beginning code generation
Thu Mar 22 13:58:06 IST 2018 WARN: Establishing SSL connection without server's identity verification is not recommended. According to MySQL 5.5.45+, 5.6.26+ and 5.7.6+ requirements SSL connection must be established by default if explicit option isn't set. For compliance with existing applications not using SSL the verifyServerCertificate property is set to 'false'. You need either to explicitly disable SSL by setting useSSL=false, or set useSSL=true and provide truststore for server certificate verification.
18/03/22 13:58:14 INFO manager.SqlManager: Executing SQL statement: SELECT t.* FROM 'Person' AS t LIMIT 1
18/03/22 13:58:14 INFO manager.SqlManager: Executing SQL statement: SELECT t.* FROM 'Person' AS t LIMIT 1
18/03/22 13:58:14 INFO orm.CompilationManager: HADOOP MAPRED HOME is /home/acagild/install/hadoop/hadoop-2.6.5
Note: /tmp/sqoop-acagild/compile/731ed885fbc427ab155d3c3ddccb852b/Person.java uses or overrides a deprecated API.
Note: Recompile with -Xlint:deprecation for details.
18/03/22 13:58:36 INFO orm.CompilationManager: Writing jar file: /tmp/sqoop-acagild/compile/731ed885fbc427ab155d3c3ddccb852b/Person.jar
18/03/22 13:58:36 WARN manager.MySQLManager: MySQL Connector upsert functionality is using INSERT ON
18/03/22 13:58:36 WARN manager.MySQLManager: DUPLICATE KEY UPDATE clause that relies on table's unique key.
18/03/22 13:58:36 WARN manager.MySQLManager: Insert/update distinction is therefore independent on column
18/03/22 13:58:36 WARN manager.MySQLManager: names specified in --update-key parameter. Please see MySQL
18/03/22 13:58:36 WARN manager.MySQLManager: documentation for additional limitations.
18/03/22 13:58:36 INFO mapreduce.ExportJobBase: Beginning export of Person
SLF4J: Class path contains multiple SLF4J bindings.
SLF4J: Found binding in [jar:file:/home/acagild/install/hadoop/hadoop-2.6.5/share/hadoop/common/lib/slf4j-log4j12-1.7.5.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: Found binding in [jar:file:/home/acagild/install/hbase/hbase-1.2.6/lib/slf4j-log4j12-1.7.5.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: See http://www.slf4j.org/codes.html#multiple_bindings for an explanation.
SLF4J: Actual binding is of type [org.slf4j.impl.Log4jLoggerFactory]
18/03/22 13:58:37 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
18/03/22 13:58:37 INFO Configuration.deprecation: mapred.jar is deprecated. Instead, use mapreduce.job.jar
```



```
applicable
18/03/22 13:58:37 INFO Configuration.deprecation: mapred.jar is deprecated. Instead, use mapreduce.job.jar
18/03/22 13:58:38 INFO Configuration.deprecation: mapred.reduce.tasks.speculative.execution is deprecated. Instead, use mapreduce.reduce.speculative
18/03/22 13:58:39 INFO Configuration.deprecation: mapred.map.tasks.speculative.execution is deprecated. Instead, use mapreduce.map.speculative
18/03/22 13:58:39 INFO Configuration.deprecation: mapred.map.tasks is deprecated. Instead, use mapreduce.job.maps
18/03/22 13:58:39 INFO client.RMProxy: Connecting to ResourceManager at localhost/127.0.0.1:8032
18/03/22 13:58:42 INFO input.FileInputFormat: Total input paths to process : 1
18/03/22 13:58:42 INFO input.FileInputFormat: Total input paths to process : 1
18/03/22 13:58:43 INFO mapreduce.JobSubmitter: number of splits:4
18/03/22 13:58:43 INFO Configuration.deprecation: mapred.map.tasks.speculative.execution is deprecated. Instead, use mapreduce.map.speculative
18/03/22 13:58:43 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1521704287346_0004
18/03/22 13:58:44 INFO impl.YarnClientImpl: Submitted application application_1521704287346_0004
18/03/22 13:58:44 INFO mapreduce.Job: The url to track the job: http://localhost:8088/proxy/application_1521704287346_0004/
18/03/22 13:58:44 INFO mapreduce.Job: Running job: job_1521704287346_0004
18/03/22 13:58:59 INFO mapreduce.Job: Job job_1521704287346_0004 running in uber mode : false
18/03/22 13:58:59 INFO mapreduce.Job: map 0% reduce 0%
18/03/22 13:59:38 INFO mapreduce.Job: map 75% reduce 0%
18/03/22 13:59:39 INFO mapreduce.Job: map 100% reduce 0%
18/03/22 13:59:39 INFO mapreduce.Job: Job job_1521704287346_0004 completed successfully
18/03/22 13:59:39 INFO mapreduce.Job: Counters: 30
  File System Counters
    FILE: Number of bytes read=0
    FILE: Number of bytes written=510884
    FILE: Number of read operations=0
    FILE: Number of large read operations=0
    FILE: Number of write operations=0
    HDFS: Number of bytes read=760
    HDFS: Number of bytes written=0
    HDFS: Number of read operations=19
    HDFS: Number of large read operations=0
    HDFS: Number of write operations=0
  Job Counters
    Launched map tasks=4
    Data-local map tasks=4
    Total time spent by all maps in occupied slots (ms)=144660
```

```

FILE: Number of bytes read=0
FILE: Number of bytes written=510884
FILE: Number of read operations=0
FILE: Number of large read operations=0
FILE: Number of write operations=0
HDFS: Number of bytes read=760
HDFS: Number of bytes written=0
HDFS: Number of read operations=19
HDFS: Number of large read operations=0
HDFS: Number of write operations=0
Job Counters
  Launched map tasks=4
  Data-local map tasks=4
  Total time spent by all maps in occupied slots (ms)=144660
  Total time spent by all reduces in occupied slots (ms)=0
  Total time spent by all map tasks (ms)=144660
  Total vcore-milliseconds taken by all map tasks=144660
  Total megabyte-milliseconds taken by all map tasks=148131840
Map-Reduce Framework
  Map input records=1
  Map output records=1
  Input split bytes=646
  Spilled Records=0
  Failed Shuffles=0
  Merged Map outputs=0
  GC time elapsed (ms)=1917
  CPU time spent (ms)=8990
  Physical memory (bytes) snapshot=425172992
  Virtual memory (bytes) snapshot=8245329920
  Total committed heap usage (bytes)=130285568
File Input Format Counters
  Bytes Read=0
File Output Format Counters
  Bytes Written=0
18/03/22 13:59:39 INFO mapreduce.ExportJobBase: Transferred 760 bytes in 60.3539 seconds (12.5924 bytes/sec)
18/03/22 13:59:39 INFO mapreduce.ExportJobBase: Exported 1 records.
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$

```

We can see a record with person_id "3" is been added to MySql

```

mysql> select * from Person;
+-----+-----+-----+-----+-----+
| person_id | lname | fname | area | city |
+-----+-----+-----+-----+-----+
| 1 | Shyam | Ram | Patna | Bihar |
| 2 | Tanya | Priya | Whitefiled | Bangalore |
| 3 | James | Brown | New York | United States |
| 4 | Jhon | Miller | Los Angeles | United States |
+-----+-----+-----+-----+-----+
4 rows in set (0.02 sec)

```

mysql> Record with person_id=3
is updated in mysql