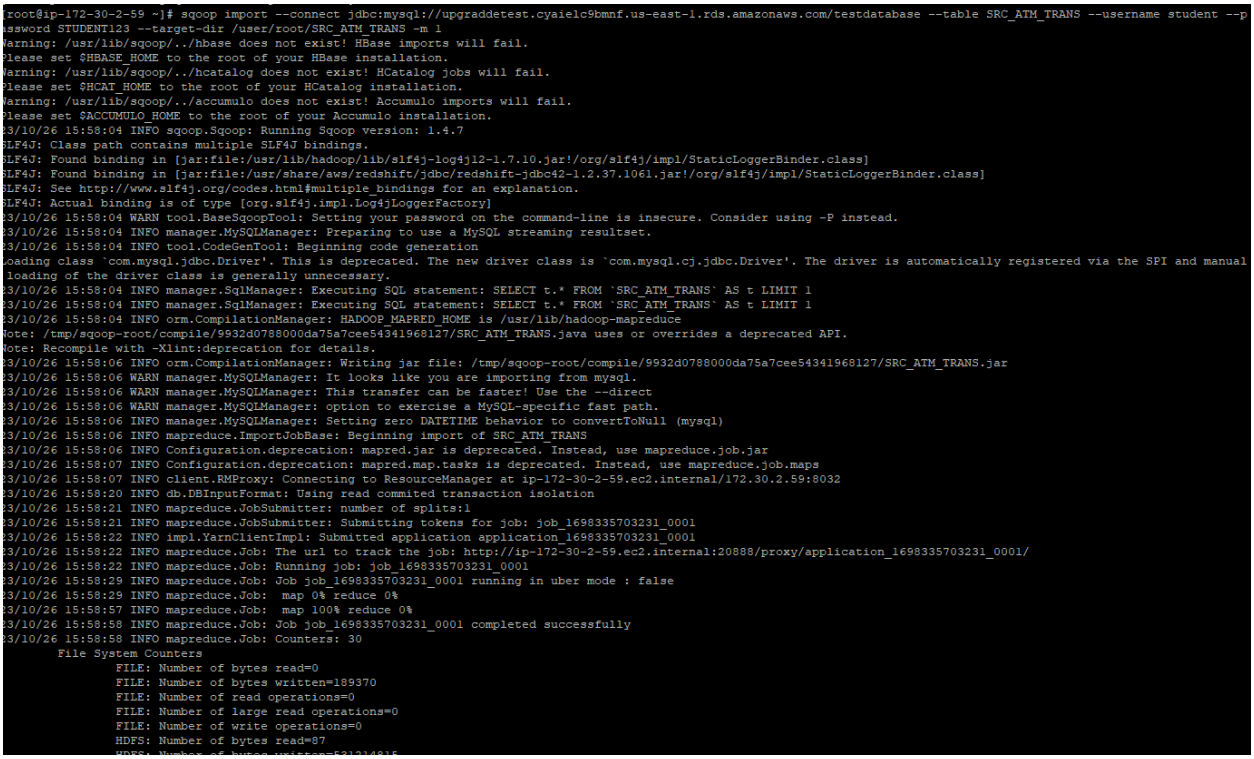
Data Ingestion from the RDS to HDFS using Sqoop

Sqoop Import command used for importing table from RDS to HDFS:

```
sqoop import \
--connect jdbc:mysql://upgraddetest.cyaielc9bmnf.us-east-1.rds.amazonaws.com/testdatabase \
--table SRC_ATM_TRANS \
--username student --password STUDENT123 \
--target-dir /user/root/SRC_ATM_TRANS \
-m 1
```



Screenshot: As can be seem, in total **2468572** records are retrieved.

```
root@ip-172-30-2-59:~
23/10/26 15:58:04 INFO orm.CompilationManager: HADOOP_MAPRED_HOME is /usr/lib/hadoop-mapreduce
Note: /tmp/sqoop-root/compile/9932d0788000da75a7cee54341968127/SRC_ATM_TRANS.java uses or overrides a deprecated API.
Note: Recompile with -Xlint:deprecation for details.
23/10/26 15:58:06 INFO orm.CompilationManager: Writing jar file: /tmp/sqoop-root/compile/9932d0788000da75a7cee54341968127/SRC_ATM_TRANS.jar
23/10/26 15:58:06 WARN manager.MySQLManager: It looks like you are importing from mysql.
23/10/26 15:58:06 WARN manager.MySQLManager: This transfer can be faster! Use the --direct
23/10/26 15:58:06 WARN manager.MySQLManager: option to exercise a MySQL-specific fast path.
23/10/26 15:58:06 INFO manager.MySQLManager: Setting zero DATETIME behavior to convertToNull (mysql)
23/10/26 15:58:06 INFO mapreduce.ImportJobBase: Beginning import of SRC_ATM_TRANS
23/10/26 15:58:06 INFO Configuration.deprecation: mapred.jar is deprecated. Instead, use mapreduce.job.jar
23/10/26 15:58:07 INFO Configuration.deprecation: mapred.map.tasks is deprecated. Instead, use mapreduce.job.maps
23/10/26 15:58:07 INFO client.RMProxy: Connecting to ResourceManager at ip-172-30-2-59.ec2.internal/172.30.2.59:8032
23/10/26 15:58:20 INFO db.DBInputFormat: Using read commited transaction isolation
23/10/26 15:58:21 INFO mapreduce.JobSubmitter: number of splits:1
23/10/26 15:58:21 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1698335703231_0001
23/10/26 15:58:22 INFO impl.YarnClientImpl: Submitted application application_1698335703231_0001
23/10/26 15:58:22 INFO mapreduce.Job: The url to track the job: http://ip-172-30-2-59.ec2.internal:20888/proxy/application_1698335703231_0001/
23/10/26 15:58:22 INFO mapreduce.Job: Running job: job_1698335703231_0001
23/10/26 15:58:29 INFO mapreduce.Job: Job job_1698335703231_0001 running in uber mode : false
23/10/26 15:58:29 INFO mapreduce.Job:  map 0% reduce 0%
23/10/26 15:58:57 INFO mapreduce.Job:  map 100% reduce 0%
23/10/26 15:58:58 INFO mapreduce.Job: Job job_1698335703231_0001 completed successfully
23/10/26 15:58:58 INFO mapreduce.Job: Counters: 30
        File System Counters
                FILE: Number of bytes read=0
                FILE: Number of bytes written=189370
                FILE: Number of read operations=0
                FILE: Number of large read operations=0
                FILE: Number of write operations=0
                HDFS: Number of bytes read=87
                HDFS: Number of bytes written=531214815
                HDFS: Number of read operations=4
                HDFS: Number of large read operations=0
                HDFS: Number of write operations=2
        Job Counters
                Launched map tasks=1
                Other local map tasks=1
                Total time spent by all maps in occupied slots (ms)=2474016
                Total time spent by all reduces in occupied slots (ms)=0
                Total time spent by all map tasks (ms)=25771
                Total vcore-milliseconds taken by all map tasks=25771
                Total megabyte-milliseconds taken by all map tasks=79168512
        Map-Reduce Framework
                Map input records=2468572
                Map output records=2468572
                Input split bytes=87
                Spilled Records=0
                Failed Shuffles=0
                Merged Map outputs=0
                GC time elapsed (ms)=208
                CPU time spent (ms)=20160
                Physical memory (bytes) snapshot=1027846144
                Virtual memory (bytes) snapshot=4625690624
                Total committed heap usage (bytes)=954204160
        File Input Format Counters
                Bytes Read=0
        File Output Format Counters
                Bytes Written=531214815
23/10/26 15:58:58 INFO mapreduce.ImportJobBase: Transferred 506.6059 MB in 51.5989 seconds (9.8181 MB/sec)
23/10/26 15:58:58 INFO mapreduce.ImportJobBase: Retrieved 2468572 records.
[root@ip-172-30-2-59 ~]#
```

Command used to see the list of imported data in HDFS:

hadoop fs -ls /user/root/SRC_ATM_TRANS

Screenshot of the imported data:

```
23/10/26 15:58:58 INFO mapreduce.ImportJobBase: Retrieved 2468572 records.
[root@ip-172-30-2-59 ~]# hadoop fs -ls /user/root/SRC_ATM_TRANS
Found 2 items
-rw-r--r--   1 root hadoop          0 2023-10-26 15:58 /user/root/SRC_ATM_TRANS/_SUCCESS
-rw-r--r--   1 root hadoop  531214815 2023-10-26 15:58 /user/root/SRC_ATM_TRANS/part-m-00000
[root@ip-172-30-2-59 ~]#
```