

## 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.cyaiehc9bmnf.us-east-1.rds.amazonaws.com/testdatabase \  
--table SRC_ATM_TRANS \  
--username student \  
--password STUDENT123 \  
--target-dir /user/root/ETL_Project_SPAR_NORD \  

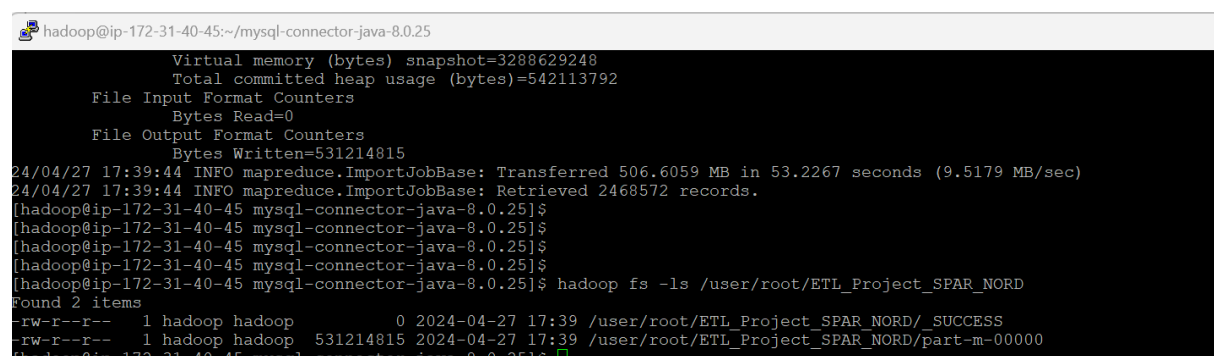
```

This command transfers data from RDS table “SRC\_ATM\_TRANS” to an Hadoop.

- connect: JDBC connection string for the RDS(MySQL) database
- username: username to use to connect to the Database
- password: password to use to connect to the Database
- table: name of the source (MySQL) table
- target-dir: Target directory where the data will be stored in HDFS
- m: Number of map tasks

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

```
hdfs fs -ls /user/root/ETL_Project_SPAR_NORD
```



```
hadoop@ip-172-31-40-45:~/mysql-connector-java-8.0.25  
Virtual memory (bytes) snapshot=3288629248  
Total committed heap usage (bytes)=542113792  
File Input Format Counters  
  Bytes Read=0  
File Output Format Counters  
  Bytes Written=531214815  
24/04/27 17:39:44 INFO mapreduce.ImportJobBase: Transferred 506.6059 MB in 53.2267 seconds (9.5179 MB/sec)  
24/04/27 17:39:44 INFO mapreduce.ImportJobBase: Retrieved 2468572 records.  
[hadoop@ip-172-31-40-45 mysql-connector-java-8.0.25]$  
[hadoop@ip-172-31-40-45 mysql-connector-java-8.0.25]$  
[hadoop@ip-172-31-40-45 mysql-connector-java-8.0.25]$  
[hadoop@ip-172-31-40-45 mysql-connector-java-8.0.25]$  
[hadoop@ip-172-31-40-45 mysql-connector-java-8.0.25]$ hadoop fs -ls /user/root/ETL_Project_SPAR_NORD  
Found 2 items  
-rw-r--r--  1 hadoop hadoop          0 2024-04-27 17:39 /user/root/ETL_Project_SPAR_NORD/ SUCCESS  
-rw-r--r--  1 hadoop hadoop 531214815 2024-04-27 17:39 /user/root/ETL_Project_SPAR_NORD/part-m-00000  
[hadoop@ip-172-31-40-45 mysql-connector-java-8.0.25]$
```

## Screenshot of the imported data:

**hadoop fs -cat /user/root/ETL\_Project\_SPAR\_NORD/part-m-00000**

<Screenshot of the imported data>

```
hadoop@ip-172-31-40-45:~/mysql-connector-java-8.0.25
06,0.000,56,803,Clouds,broken clouds
2017,January,1,Sunday,15,Active,49,NCR,Bindslev,NÅfÅ,rrrebro,18,9881,57.541,10.200,DKK,Mastercard - on-us,7462,Withdrawal,,,57.471,10.203,2614010,Sindal,277.1
84,1020,86,4,306,0.000,56,803,Clouds,broken clouds
2017,January,1,Sunday,15,Active,40,Diebold Nixdorf,Frederikshavn,Danmarksgade,48,9900,57.441,10.537,DKK,Visa Dankort - on-us,5819,Withdrawal,,,57.441,10.537,
2621927,Frederikshavn,279.809,1020,100,6,331,0.000,0,800,Clear,Sky is Clear
2017,January,1,Sunday,15,Active,39,NCR,Svenstrup,GodthÅfÅvbsvej,14,9230,56.973,9.851,DKK,Mastercard - on-us,6713,Withdrawal,,,56.972,9.848,2612021,Svenstrup,
277.184,1020,86,4,306,0.000,56,803,Clouds,broken clouds
2017,January,1,Sunday,15,Active,7,Diebold Nixdorf,Hjallerup,Hjallerup Centret,18,9320,57.168,10.148,DKK,Visa Dankort,6105,Withdrawal,,,57.165,10.146,2620275,
Hjallerup,277.184,1020,86,4,306,0.000,56,803,Clouds,broken clouds
2017,January,1,Sunday,15,Active,45,NCR,Abildgaard,HjÅfÅ,rringvej,144,9900,57.447,10.506,DKK,Visa Dankort,389,Withdrawal,,,57.441,10.537,2621927,Frederikshavn
,279.809,1020,100,6,331,0.000,0,800,Clear,Sky is Clear
2017,January,1,Sunday,15,Active,37,NCR,Silkeborg,Borgergade,36,8600,56.179,9.552,DKK,Mastercard - on-us,3627,Withdrawal,,,56.170,9.545,2614030,Silkeborg,277.
500,1009,86,2,270,0.000,80,803,Clouds,broken clouds
2017,January,1,Sunday,15,Active,72,NCR,Daglig Brugsen ÅfÆa.Hurup,Kystvejen,51,9560,56.804,10.271,DKK,VISA,6967,Withdrawal,,,56.715,10.117,2620952,Hadsund,277
.184,1020,86,4,306,0.000,56,803,Clouds,broken clouds
2017,January,1,Sunday,15,Active,43,NCR,Aars,Himmerlandsgade,70,9600,56.803,9.518,DKK,Mastercard - on-us,3956,Withdrawal,,,56.804,9.514,2624602,Aars,277.150,1
009,86,2,270,0.000,56,803,Clouds,broken clouds
2017,January,1,Sunday,15,Active,17,NCR,Randers,ÅfÆastervold,16,8900,56.462,10.038,DKK,VISA,8879,Withdrawal,,,56.715,10.117,2620952,Hadsund,277.184,1020,86,4,
306,0.000,56,803,Clouds,broken clouds
2017,January,1,Sunday,15,Active,59,Diebold Nixdorf,NykÅfÅ,bing Mors Lobby,Kirketorvet,1,7900,56.795,8.860,DKK,Mastercard - on-us,2527,Withdrawal,,,56.793,8.8
53,2615964,Nykobing Mors,277.150,1009,86,2,270,0.000,32,802,Clouds,scattered clouds
2017,January,1,Sunday,15,Active,80,NCR,Menu KÅfÅ,bmand Klarup,Klarupvej,52,9270,57.013,10.046,DKK,Mastercard - on-us,5996,Withdrawal,,,57.004,10.101,2612301,
Storvorde,277.184,1020,86,4,306,0.000,56,803,Clouds,broken clouds
2017,January,1,Sunday,15,Active,45,NCR,Abildgaard,HjÅfÅ,rringvej,144,9900,57.447,10.506,DKK,MasterCard,2400,Withdrawal,,,57.441,10.537,2621927,Frederikshavn,
279.809,1020,100,6,331,0.000,0,800,Clear,Sky is Clear
2017,January,1,Sunday,15,Active,21,NCR,ÅfÆasterÅfÅW MÅfÅ,ller,ÅfÆasterÅfÅV,12,9000,57.049,9.922,DKK,Visa Dankort - on-us,4014,Withdrawal,,,57.048,9.919,2624
886,Aalborg,277.184,1020,86,4,306,0.000,56,803,Clouds,broken clouds
2017,January,1,Sunday,15,Active,42,NCR,Vinderup,SÅfÅ,ndergade,5,7830,56.481,8.779,DKK,Visa Dankort,2869,Withdrawal,,,56.475,8.791,2610196,Vinderup,277.184,10
20,86,4,306,0.000,56,803,Clouds,broken clouds
2017,January,1,Sunday,15,Active,33,NCR,Vadum,Ellehammersvej,43,9430,57.118,9.861,DKK,Visa Dankort,2303,Withdrawal,,,57.118,9.857,2610823,Vadum,277.184,1020,8
6,4,306,0.000,56,803,Clouds,broken clouds
2017,January,1,Sunday,15,Active,53,NCR,SÅfÅ:by Syd,Trafikcenter SÅfÅ:by Syd,1,9300,57.313,10.450,DKK,MasterCard,2908,Withdrawal,,,57.441,10.537,2621927,Frede
rikshavn,279.809,1020,100,6,331,0.000,0,800,Clear,Sky is Clear
2017,January,1,Sunday,15,Active,17,NCR,Randers,ÅfÆastervold,16,8900,56.462,10.038,DKK,VISA,7632,Withdrawal,,,56.715,10.117,2620952,Hadsund,277.184,1020,86,4,
306,0.000,56,803,Clouds,broken clouds
2017,January,1,Sunday,15,Active,68,NCR,Drive Up Vejle,Havneparken,4,7100,55.707,9.541,DKK,Visa Dankort,9435,Withdrawal,,,55.709,9.536,2610613,Vejle,278.400,
1010,86,3,270,0.000,80,310,Drizzle,light intensity drizzle rain
2017,January,1,Sunday,15,Active,45,NCR,Abildgaard,HjÅfÅ,rringvej,144,9900,57.447,10.506,DKK,Visa Dankort,4279,Withdrawal,,,57.441,10.537,2621927,Frederikshav
n,279.809,1020,100,6,331,0.000,0,800,Clear,Sky is Clear
2017,January,1,Sunday,15,Active,20,NCR,Bispensgade,Bispensgade,35,9800,57.453,9.996,DKK,MasterCard,3091,Withdrawal,,,57.464,9.982,2620214,Hjorring,278.484,10
20,97,5,329,0.000,0,800,Clear,Sky is Clear
2017,January,1,Sunday,15,Active,36,NCR,HjÅfÅ,rring,ÅfÆastergade,8,9800,57.459,9.988,DKK,Mastercard - on-us,2619,Withdrawal,,,57.464,9.982,2620214,Hjorring,27
8.484,1020,97,5,329,0.000,0,800,Clear,Sky is Clear
2017,January,1,Sunday,15,Active,[hadoop@ip-172-31-40-45 mysql-connector-java-8.0.25]#
```