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/SPAR_NORD_BANK_PROJECT -m 1
```

```
Redirecting to /bin/systemctl restart mariadb.service
[root@ip-172-31-18-127 mysql-connector-java-8.0.25]# sqoop import --connect jdbc:mysql://upgraddetest.cyaielc9bmnf.us-east-1.rds.amazonaws.com/testdatabase --table SRC_ATM_TRANS --username student --password S
TUDENT123 --target-dir /user/root/SPAR_NORD_BANK_PROJECT -m 1
```

Resulted Output:

```
            CPU time spent (ms)=27140
            Physical memory (bytes) snapshot=639131648
            Virtual memory (bytes) snapshot=3307278336
            Total committed heap usage (bytes)=528482304
        File Input Format Counters
            Bytes Read=0
        File Output Format Counters
            Bytes Written=531214815
22/10/28 08:25:28 INFO mapreduce.ImportJobBase: Transferred 506.6059 MB in 45.3888 seconds (11.1615 MB/sec)
22/10/28 08:25:28 INFO mapreduce.ImportJobBase: Retrieved 2468572 records.
[root@ip-172-31-18-127 mysql-connector-java-8.0.25]#
```

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

```
hadoop fs -ls /user/root/SPAR_NORD_BANK_PROJECT
```

```
            Bytes Written=531214815
22/10/28 08:28:47 INFO mapreduce.ImportJobBase: Transferred 506.6059 MB in 38.2227 seconds (13.2541 MB/sec)
22/10/28 08:28:47 INFO mapreduce.ImportJobBase: Retrieved 2468572 records.
[root@ip-172-31-18-127 mysql-connector-java-8.0.25]# hadoop fs -ls /user/root/SPAR_NORD_BANK_PROJECT
Found 2 items
-rw-r--r--   1 root hdfsadmingroup          0 2022-10-28 08:28 /user/root/SPAR_NORD_BANK_PROJECT/_SUCCESS
-rw-r--r--   1 root hdfsadmingroup  531214815 2022-10-28 08:28 /user/root/SPAR_NORD_BANK_PROJECT/part-m-00000
[root@ip-172-31-18-127 mysql-connector-java-8.0.25]#
```

Screenshot of the imported data:


```
2017,December,31,Sunday,23,Active,28,NCR,LÃfÂ gstÃfÂ r,ÃfËœsterbrogade,8,9670,56.967,9.253,DKK,VISA,5568,Withdrawal,,,56
.962,9.258,2617467,Logstor,277.589,999,87,6,208,0.000,76,803,Clouds,broken clouds
2017,December,31,Sunday,23,Active,49,NCR,Bindslev,NÃfÂ rrebro,18,9881,57.541,10.200,DKK,MasterCard,5403,Withdrawal,,,57.
471,10.203,2614010,Sindal,277.589,999,87,6,208,0.000,76,803,Clouds,broken clouds
2017,December,31,Sunday,23,Active,49,NCR,Bindslev,NÃfÂ rrebro,18,9881,57.541,10.200,DKK,MasterCard,312,Withdrawal,,,57.4
71,10.203,2614010,Sindal,277.589,999,87,6,208,0.000,76,803,Clouds,broken clouds
2017,December,31,Sunday,23,Active,56,Diebold Nixdorf,KÃfÂ ge,SÃfÂ ndre Alle,1,4600,55.454,12.181,DKK,Visa Dankort - on-u
s,5351,Withdrawal,,,55.588,12.251,2621218,Greve Kommune,280.150,992,100,3,190,0.000,90,804,Clouds,overcast clouds
2017,December,31,Sunday,23,Active,103,Diebold Nixdorf,Vejgaard,Hadsundvej,20,9000,57.043,9.950,DKK,Mastercard - on-us,58
21,Withdrawal,,,57.048,9.935,2616235,NÃfÂ rresundby,277.589,999,87,6,208,0.000,76,803,Clouds,broken clouds
2017,December,31,Sunday,23,Active,1,NCR,NÃfÂ¦stved,Farimagsvej,8,4700,55.233,11.763,DKK,Visa Dankort,3049,Withdrawal,,,5
5.230,11.761,2616038,Naestved,280.150,991,100,5,210,1.175,92,500,Rain,light rain
2017,December,31,Sunday,23,Active,85,Diebold Nixdorf,KÃfÂ benhavn,Regnbuepladsen,5,1550,55.676,12.571,DKK,MasterCard,778
5,Withdrawal,,,55.676,12.566,2618425,Copenhagen,280.150,992,100,3,190,0.000,90,804,Clouds,overcast clouds
2017,December,31,Sunday,23,Active,15,NCR,Vestre,Kastetvej,36,9000,57.053,9.905,DKK,Mastercard - on-us,9777,Withdrawal,,,
57.048,9.919,2624886,Aalborg,277.589,999,87,6,208,0.000,76,803,Clouds,broken clouds
2017,December,31,Sunday,23,Active,15,NCR,Vestre,Kastetvej,36,9000,57.053,9.905,DKK,MasterCard,5531,Withdrawal,,,57.048,9
.919,2624886,Aalborg,277.589,999,87,6,208,0.000,76,803,Clouds,broken clouds
2017,December,31,Sunday,23,Active,34,NCR,Skipperen,Vestre Alle,2,9000,57.034,9.908,DKK,MasterCard,8323,Withdrawal,,,57.0
48,9.919,2624886,Aalborg,277.589,999,87,6,208,0.000,76,803,Clouds,broken clouds
2017,December,31,Sunday,23,Active,20,NCR,Bispensgade,Bispensgade,35,9800,57.453,9.996,DKK,MasterCard,5023,Withdrawal,,,5
7.464,9.982,2620214,Hjorring,278.589,998,99,8,210,0.000,44,802,Clouds,scattered clouds
2017,December,31,Sunday,23,Active,34,NCR,Skipperen,Vestre Alle,2,9000,57.034,9.908,DKK,MasterCard,147,Withdrawal,,,57.04
8,9.919,2624886,Aalborg,277.589,999,87,6,208,0.000,76,803,Clouds,broken clouds
2017,December,31,Sunday,23,Active,70,Diebold Nixdorf,Holstebro,Hostrupsvej,6,7500,56.373,8.625,DKK,MasterCard,5666,Withd
rawal,,,56.360,8.616,2620046,Holstebro,280.150,988,93,4,210,0.000,92,804,Clouds,overcast clouds
2017,December,31,Sunday,23,Active,49,NCR,Bindslev,NÃfÂ rrebro,18,9881,57.541,10.200,DKK,MasterCard,7886,Withdrawal,,,57.
471,10.203,2614010,Sindal,277.589,999,87,6,208,0.000,76,803,Clouds,broken clouds
2017,December,31,Sunday,23,Inactive,12,NCR,ÃfËœsterÃfÂ¥ Duus,ÃfËœsterÃfÂ¥,12,9000,57.049,9.922,DKK,Mastercard - on-us,2
436,Withdrawal,,,57.048,9.919,2624886,Aalborg,277.589,999,87,6,208,0.000,76,803,Clouds,broken clouds
2017,December,31,Sunday,23,Inactive,12,NCR,ÃfËœsterÃfÂ¥ Duus,ÃfËœsterÃfÂ¥,12,9000,57.049,9.922,DKK,Mastercard - on-us,8
519,Withdrawal,,,57.048,9.919,2624886,Aalborg,277.589,999,87,6,208,0.000,76,803,Clouds,broken clouds
2017,December,31,Sunday,23,Active,10,NCR,NÃfÂ rresundby,Torvet,6,9400,57.059,9.922,DKK,Mastercard - on-us,5286,Withdrawa
l,,,57.048,9.919,2624886,Aalborg,277.589,999,87,6,208,0.000,76,803,Clouds,broken clouds
2017,December,31,Sunday,23,Active,37,NCR,Silkeborg,Borgergade,36,8600,56.179,9.552,DKK,VISA,876,Withdrawal,,,56.170,9.54
5,2614030,Silkeborg,279.800,988,93,4,210,0.000,88,804,Clouds,overcast clouds
[root@ip-172-31-18-127 mysql-connector-java-8.0.25]#
```