

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.cyaieic9bmnf.us-east-1.rds.amazonaws.com/testdatabase \
--table SRC_ATM_TRANS \
--username student --password STUDENT123 \
--target-dir /user/root/SRC_ATM_TRANS \
-m 1
```

```
[root@ip-172-31-34-110 ~]# sqoop import \
> --connect jdbc:mysql://upgraddetest.cyaieic9bmnf.us-east-1.rds.amazonaws.com/testdatabase \
> --table SRC_ATM_TRANS \
> --username student --password STUDENT123 \
> --target-dir /user/root/SRC_ATM_TRANS \
> -m 1
```

```
22/09/02 07:01:09 INFO mapreduce.Job: Job job_1662099862612_0001 running in uber mode : false
22/09/02 07:01:09 INFO mapreduce.Job: map 0% reduce 0%
22/09/02 07:01:37 INFO mapreduce.Job: map 100% reduce 0%
22/09/02 07:01:38 INFO mapreduce.Job: Job job_1662099862612_0001 completed successfully
22/09/02 07:01:38 INFO mapreduce.Job: Counters: 30
File System Counters
  FILE: Number of bytes read=0
  FILE: Number of bytes written=189411
  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)=1207776
  Total time spent by all reduces in occupied slots (ms)=0
  Total time spent by all map tasks (ms)=25162
  Total vcore-milliseconds taken by all map tasks=25162
  Total megabyte-milliseconds taken by all map tasks=38648832
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)=28390
  Physical memory (bytes) snapshot=631590912
  Virtual memory (bytes) snapshot=3291594752
  Total committed heap usage (bytes)=535298048
File Input Format Counters
  Bytes Read=0
File Output Format Counters
  Bytes Written=531214815
22/09/02 07:01:38 INFO mapreduce.ImportJobBase: Transferred 506.6059 MB in 45.3657 seconds (11.1672 MB/sec)
22/09/02 07:01:38 INFO mapreduce.ImportJobBase: Retrieved 2468572 records.
```

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

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

```
[root@ip-172-31-34-110 ~]# hadoop fs -ls /user/root/SRC_ATM_TRANS
Found 2 items
-rw-r--r-- 1 root hadoop 0 2022-09-02 07:01 /user/root/SRC_ATM_TRANS/_SUCCESS
-rw-r--r-- 1 root hadoop 531214815 2022-09-02 07:01 /user/root/SRC_ATM_TRANS/part-m-00000
[root@ip-172-31-34-110 ~]#
```

Screenshot of the imported data:

```
root@ip-172-31-34-110-
2017, March, 12, Sunday, 12, Active, 46, Diebold Nixdorf, Helsingørsk, Sct. Olai Gade, 39, 3000, 56, 036, 12, 612, DKK, MasterCard, 5562, Withdrawal, , 56, 036, 12, 614, 2620473, Helsingørsk, 277, 630, 1025, 60, 3, 150, 0
2017, March, 12, Sunday, 12, Active, 51, NCR, Gistrup, Hadsundvej, 346, 9260, 56, 997, 9, 993, DKK, Visa Dankort - on-us, 7417, Withdrawal, , 56, 994, 9, 991, 2621449, Gistrup, 276, 208, 1037, 96, 6, 149, 0, 000, 92, 804, cl
2017, March, 12, Sunday, 12, Active, 7, Diebold Nixdorf, Hjøllerrup, Hjøllerrup Centret, 18, 9320, 57, 168, 10, 148, DKK, Visa Dankort - on-us, 396, Withdrawal, , 57, 165, 10, 146, 2620275, Hjøllerrup, 276, 208, 1037, 96
2017, March, 12, Sunday, 12, Active, 79, NCR, Middelfart, Brogade, 9, 5500, 55, 507, 9, 727, DKK, Visa Dankort - on-us, 9740, Withdrawal, , 55, 506, 9, 731, 2616933, Middelfart, 280, 150, 1022, 96, 5, 120, 0, 000, 75, 803, cl
2017, March, 12, Sunday, 12, Active, 41, Diebold Nixdorf, Skagen, Sct. Laurentiivej, 36, 9990, 57, 723, 10, 590, DKK, MasterCard, 7505, Withdrawal, , 57, 721, 10, 584, 2613939, Skagen, 278, 260, 1025, 55, 3, 190, 0, 000, 0
2017, March, 12, Sunday, 12, Active, 4, NCR, Svogerslev, Bråfå, nsager, 1, 4000, 55, 634, 12, 018, DKK, Visa Dankort - on-us, 8308, Withdrawal, , 55, 642, 12, 080, 2614481, Roskilde, 276, 680, 1025, 92, 6, 140, 0, 000, 75, 80
2017, March, 12, Sunday, 12, Active, 43, NCR, Aars, Himmerlandsgade, 70, 9600, 56, 803, 9, 518, DKK, MasterCard, 9021, Withdrawal, , 56, 804, 9, 514, 2624602, Aars, 281, 150, 1022, 45, 5, 130, 0, 000, 92, 804, Clouds, overcast
2017, March, 12, Sunday, 12, Active, 45, NCR, Abildgaard, Håfå, rringvej, 144, 9900, 57, 447, 10, 506, DKK, Visa Dankort, 183, Withdrawal, , 57, 441, 10, 537, 2621927, Frederikshavn, 276, 158, 1039, 100, 7, 164, 0, 000, 88
2017, March, 12, Sunday, 12, Inactive, 74, NCR, Jebjerg, Kirkegade, 4, 7870, 56, 671, 9, 013, DKK, Visa Dankort, 3544, Withdrawal, , 56, 567, 9, 033, 2613731, Skive, 281, 150, 1022, 45, 5, 130, 0, 000, 88, 804, Clouds, overcast
2017, March, 12, Sunday, 12, Inactive, 86, NCR, Hillerød, Idæfå, tcenter, Milnervej, 39, 3400, 55, 921, 12, 299, DKK, Visa Dankort, 3853, Withdrawal, , 55, 767, 12, 433, 2621394, Gladsaxe Kommune, 277, 400, 1026
2017, March, 12, Sunday, 12, Active, 31, NCR, Slagelse, Mariendals Allé, 29, 4200, 55, 399, 11, 342, DKK, Visa, 8714, Withdrawal, , 55, 403, 11, 355, 2613460, Slagelse, 277, 180, 1025, 100, 6, 140, 0, 000, 75, 803, Clouds, brs
2017, March, 12, Sunday, 12, Inactive, 52, NCR, Farså, Torvet, 8, 9640, 56, 771, 9, 340, DKK, MasterCard - on-us, 2012, Withdrawal, , 56, 773, 9, 339, 2622310, Farsø, 276, 208, 1037, 96, 6, 149, 0, 000, 92, 804, Clouds, ove
2017, March, 12, Sunday, 12, Active, 5, NCR, Nibe, Torvet, 1, 9240, 56, 983, 9, 639, DKK, Dankort - on-us, 3916, Withdrawal, , 56, 981, 9, 639, 2616483, Nibe, 276, 208, 1037, 96, 6, 149, 0, 000, 92, 804, Clouds, overcast cloud
2017, March, 12, Sunday, 12, Inactive, 74, NCR, Jebjerg, Kirkegade, 4, 7870, 56, 671, 9, 013, DKK, Visa Dankort, 3544, Withdrawal, , 56, 567, 9, 033, 2613731, Skive, 281, 150, 1022, 45, 5, 130, 0, 000, 88, 804, Clouds, overcast
2017, March, 12, Sunday, 12, Active, 49, NCR, Bindslev, NÅfå, rrebro, 18, 9881, 57, 541, 10, 200, DKK, HÅfå, vekort - on-us, 5975, Withdrawal, , 57, 471, 10, 203, 2614010, Sindal, 276, 208, 1037, 96, 6, 149, 0, 000, 92, 804, cl
2017, March, 12, Sunday, 12, Active, 45, NCR, Abildgaard, Håfå, rringvej, 144, 9900, 57, 447, 10, 506, DKK, Visa Dankort - on-us, 9241, Withdrawal, , 57, 441, 10, 537, 2621927, Frederikshavn, 276, 158, 1039, 100, 7, 164
2017, March, 12, Sunday, 12, Active, 1, NCR, NÅfå, stved, Farinagsvej, 8, 4700, 55, 233, 11, 763, DKK, Visa Dankort, 8282, Withdrawal, , 55, 230, 11, 761, 2616038, Næstved, 277, 150, 1025, 80, 5, 130, 0, 000, 75, 803, Clouds
2017, March, 12, Sunday, 12, Inactive, 88, NCR, Storcenter indg. A, Hobrovej, 452, 9200, 57, 005, 9, 876, DKK, MasterCard - on-us, 3684, Withdrawal, , 56, 972, 9, 848, 2612021, Svenstrup, 276, 208, 1037, 96, 6, 149, 0, 000
2017, March, 12, Sunday, 12, Active, 62, Diebold Nixdorf, Terndrup, Bymidten, 2, 9575, 56, 815, 10, 057, DKK, Visa Dankort - on-us, 3577, Withdrawal, , 56, 715, 10, 117, 2620952, Hadsund, 276, 208, 1037, 96, 6, 149, 0, 000
2017, March, 12, Sunday, 12, Active, 34, NCR, Skjerpsten, Vestre Allé, 2, 9000, 57, 034, 9, 908, DKK, Dankort - on-us, 6833, Withdrawal, , 57, 048, 9, 919, 2624886, Aalborg, 276, 208, 1037, 96, 6, 149, 0, 000, 92, 804, Clouds
2017, March, 12, Sunday, 12, Active, 41, Diebold Nixdorf, Skagen, Sct. Laurentiivej, 36, 9990, 57, 723, 10, 590, DKK, Visa, 3434, Withdrawal, , 57, 721, 10, 584, 2613939, Skagen, 278, 260, 1025, 55, 3, 190, 0, 000, 0, 800, cl
2017, March, 12, Sunday, 12, Active, 58, NCR, Ståfå, rving, Baunebakken, 4, 9530, 56, 890, 9, 836, DKK, MasterCard - on-us, 6670, Withdrawal, , 56, 885, 9, 838, 2612500, Stovring, 276, 208, 1037, 96, 6, 149, 0, 000, 92, 804, c
2017, March, 12, Sunday, 12, Active, 10, NCR, NÅfå, rresundby, Torvet, 6, 9400, 57, 059, 9, 922, DKK, Visa Dankort, 3049, Withdrawal, , 57, 048, 9, 919, 2624886, Aalborg, 276, 208, 1037, 96, 6, 149, 0, 000, 92, 804, Clouds, ove
2017, March, 12, Sunday, 12, Active, 53, NCR, SÅfå, by Syd, Trafikcenter SÅfå, by Syd, 1, 9300, 57, 313, 10, 450, DKK, MasterCard - on-us, 5236, Withdrawal, , 57, 441, 10, 537, 2621927, Frederikshavn, 276, 158, 1039, 100
2017, March, 12, Sunday, 12, Active, 44, NCR, Lyngby, Jernbanenvej, 6, 2800, 55, 772, 12, 500, DKK, Visa Dankort, 7033, Withdrawal, , 55, 770, 12, 504, 2618468, Kongens Lyngby, 277, 560, 1026, 92, 4, 150, 0, 000, 75, 803, Clou
2017, March, 12, Sunday, 12, Active, 80, NCR, Menu KÅfå, bmand Klarup, Klarupvej, 52, 9270, 57, 013, 10, 046, DKK, MasterCard, 9455, Withdrawal, , 57, 004, 10, 101, 2612301, Storvorde, 276, 208, 1037, 96, 6, 149, 0, 000, 92
2017, March, 12, Sunday, 12, Active, 21, NCR, ÅfBesterÅfÅ, MÅfå, ller, ÅfBesterÅfÅ, 12, 9000, 57, 049, 9, 922, DKK, Visa Dankort - on-us, 6177, Withdrawal, , 57, 048, 9, 919, 2624886, Aalborg, 276, 208, 1037, 96, 6, 149
2017, March, 12, Sunday, 12, Active, 69, NCR, Taars, Bredgade, 91, 9830, 57, 385, 10, 116, DKK, Visa Dankort, 2520, Withdrawal, , 57, 383, 10, 117, 2611852, Tars, 276, 208, 1037, 96, 6, 149, 0, 000, 92, 804, Clouds, overcast c
2017, March, 12, Sunday, 12, Inactive, 52, NCR, Farså, Torvet, 8, 9640, 56, 771, 9, 340, DKK, Visa Dankort, 4068, Withdrawal, , 56, 773, 9, 339, 2622310, Farsø, 276, 208, 1037, 96, 6, 149, 0, 000, 92, 804, Clouds, overcast
2017, March, 12, Sunday, 12, Active, 11, NCR, Søauersvej, Fridtjof Nansens Vej, 2, 9210, 57, 023, 9, 940, DKK, Visa Dankort, 2781, Withdrawal, , 57, 048, 9, 935, 2616235, NÅfå, rresundby, 276, 208, 1037, 96, 6, 149, 0, 000, 92
2017, March, 12, Sunday, 12, Active, 41, Diebold Nixdorf, Skagen, Sct. Laurentiivej, 36, 9990, 57, 723, 10, 590, DKK, Dankort - on-us, 1703, Withdrawal, , 57, 721, 10, 584, 2613939, Skagen, 278, 260, 1025, 55, 3, 190, 0, 0
2017, March, 12, Sunday, 12, Active, 53, NCR, SÅfå, by Syd, Trafikcenter SÅfå, by Syd, 1, 9300, 57, 313, 10, 450, DKK, MasterCard - on-us, 168, Withdrawal, , 57, 441, 10, 537, 2621927, Frederikshavn, 276, 158, 1039, 100
2017, March, 12, Sunday, 12, Inactive, 2, NCR, Vejgaard, Hadsundvej, 20, 9000, 57, 043, 9, 950, DKK, Visa Dankort - on-us, 5734, Withdrawal, , 57, 048, 9, 935, 2616235, NÅfå, rresundby, 276, 208, 1037, 96, 6, 149, 0, 000, 92
2017, March, 12, Sunday, 12, Active, 68, NCR, Drive Up Vejle, Havneparken, 4, 7100, 55, 707, 9, 541, DKK, Visa Dankort - on-us, 8166, Withdrawal, , 55, 709, 9, 536, 2610613, Vejle, 278, 950, 1022, 52, 6, 130, 0, 000, 92, 80
2017, March, 12, Sunday, 12, Active, 76, NCR, DAYZ Periecenter, LivÅfå, vej, 80, 9681, 56, 893, 9, 171, DKK, MasterCard, 3625, Withdrawal, , 56, 962, 9, 258, 2617467, Logstor, 276, 208, 1037, 96, 6, 149, 0, 000, 92, 804, Clou
2017, March, 12, Sunday, 12, Inactive, 73, NCR, HÅfå, jbjerg, Rosenvangsalle, 194, 8270, 56, 119, 10, 192, DKK, Visa, 3630, Withdrawal, , 56, 157, 10, 211, 2624652, Århus, 279, 800, 1024, 56, 4, 150, 0, 000, 92, 804, Clouds, ov
2017, March, 12, Sunday, 12, Inactive, 81, NCR, Spar KÅfå, bmand TornhÅfå, j, TornhÅfå, vej, 4, 9220, 57, 026, 10, 002, DKK, MasterCard - on-us, 7274, Withdrawal, , 56, 994, 9, 991, 2621449, Gistrup, 276, 208, 1037, 96, 6
2017, March, 12, Sunday, 12, Active, 64, NCR, Horsens, GrÅfå, nlandsvej, 5, 8700, 55, 859, 9, 854, DKK, Visa Dankort - on-us, 5479, Withdrawal, , 55, 861, 9, 850, 2619771, Horsens, 279, 160, 1022, 52, 6, 130, 0, 000, 92, 804
2017, March, 12, Sunday, 12, Active, 63, NCR, Brugsen Å, Breum, AakÅfå, rsvvej, 1, 7870, 56, 688, 9, 069, DKK, Visa Dankort, 5575, Withdrawal, , 56, 586, 9, 136, 2619908, Højsløv, 276, 208, 1037, 96, 6, 149, 0, 000, 92, 804, cl
2017, March, 12, Sunday, 12, Active, 21, NCR, ÅfBesterÅfÅ, MÅfå, ller, ÅfBesterÅfÅ, 12, 9000, 57, 049, 9, 922, DKK, MasterCard - on-us, 1436, Withdrawal, , 57, 048, 9, 919, 2624886, Aalborg, 276, 208, 1037, 96, 6, 149, 0
2017, March, 12, Sunday, 12, Active, 15, NCR, Vestre, Kastetvej, 36, 9000, 57, 053, 9, 905, DKK, MasterCard - on-us, 455, Withdrawal, , 57, 048, 9, 919, 2624886, Aalborg, 276, 208, 1037, 96, 6, 149, 0, 000, 92, 804, Clouds, ov
2017, March, 12, Sunday, 12, Active, 11, NCR, Søauersvej, Fridtjof Nansens Vej, 2, 9210, 57, 023, 9, 940, DKK, MasterCard, 7968, Withdrawal, , 57, 048, 9, 935, 2616235, NÅfå, rresundby, 276, 208, 1037, 96, 6, 149, 0, 000, 92
2017, March, 12, Sunday, 12, Inactive, 71, NCR, AalbÅfå, k, Centralvej, 5, 9982, 57, 593, 10, 412, DKK, Dankort - on-us, 8475, Withdrawal, , 57, 492, 10, 496, 2612274, Strandby, 276, 708, 1038, 100, 5, 160, 0, 000, 88, 804, Clou
2017, March, 12, Sunday, 12, Active, 20, NCR, Bispensgade, Bispensgade, 35, 9800, 57, 453, 9, 996, DKK, MasterCard - on-us, 8472, Withdrawal, , 57, 464, 9, 982, 2620214, Hjørring, 276, 708, 1038, 100, 5, 160, 0, 000, 88, 804
2017, March, 12, Sunday, 12, Inactive, 16, NCR, Skive, Adelgade, 8, 7800, 56, 567, 9, 027, DKK, Visa Dankort - on-us, 6936, Withdrawal, , 56, 567, 9, 033, 2613731, Skive, 281, 150, 1022, 45, 5, 130, 0, 000, 88, 804, Clouds, ov
2017, March, 12, Sunday, 12, Active, 87, NCR, Aalborg Storcenter indg. D, Hobrovej, 452, 9200, 57, 005, 9, 876, DKK, MasterCard, 9262, Withdrawal, , 56, 972, 9, 848, 2612021, Svenstrup, 276, 208, 1037, 96, 6, 149, 0, 000, 9
2017, March, 12, Sunday, 12, Active, 26, NCR, HolbÅfå, k, Slots volden, 7, 4300, 55, 718, 11, 704, DKK, Visa Dankort - on-us, 5504, Withdrawal, , 55, 709, 11, 700, 2620141, HolbÅfå, k Kommune, 277, 400, 1026, 89, 4, 150, 0, 0
2017, March, 12, Sunday, 12, Inactive, 52, NCR, Farså, Torvet, 8, 9640, 56, 771, 9, 340, DKK, Visa Dankort, 9734, Withdrawal, , 56, 773, 9, 339, 2622310, Farsø, 276, 208, 1037, 96, 6, 149, 0, 000, 92, 804, Clouds, overcast
2017, March, 12, Sunday, 12, Active, 33, NCR, Vadum, Ellehamersvej, 43, 9430, 57, 118, 9, 861, DKK, Visa Dankort - on-us, 2158, Withdrawal, , 57, 118, 9, 857, 2610823, Vadum, 276, 208, 1037, 96, 6, 149, 0, 000, 92, 804, Clou
2017, March, 12, Sunday, 12, Active, 11, NCR, Søauersvej, Fridtjof Nansens Vej, 2, 9210, 57, 023, 9, 940, DKK, MasterCard, 1589, Withdrawal, , 57, 048, 9, 935, 2616235, NÅfå, rresundby, 276, 208, 1037, 96, 6, 149, 0, 000, 92
2017, March, 12, Sunday, 12, Active, 45, NCR, Abildgaard, HÅfå, rringvej, 144, 9900, 57, 447, 10, 506, DKK, MasterCard - on-us, 1469, Withdrawal, , 57, 441, 10, 537, 2621927, Frederikshavn, 276, 158, 1039, 100, 7, 164, 0
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