ACTIVIDAD 2.7

Universidad de Guadalajara

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De la actividad 2.6 la segunda consulta **Obtener los primeros 100 registros de la tabla empleo (le puse aseg2020)**; *SELECT * FROM aseg2020 LIMIT 100;* nos mostraba cero *MAP* y cero *REDUCE*. En esta nueva actividad se pide hacer la misma consulta y ordenar por cve_entidad o cve_subdelegación (segunda consulta de la actividad 2.6).

Consulta y cambios en procesos MAP y REDUCE

Se arrancan los servicios de Hadoop y de Apache Hive. Se usa la base de datos anterior y luego *SELECT * FROM aseg2020 ORDER BY cve_entidad LIMIT 100;* Esto muestra MAP:4 y REDUCE:1.

También se hizo la consulta con order by cve_subdelegacion de la siguiente manera: *SELECT * FROM aseg2020 ORDER BY cve_subdelegacion LIMIT 100;*. Esta ejecución realiza MAP:4 y REDUCE:1.

```
Terminal - oem@oem-VirtualBox: /usr/local/apache-hive

Archivo  Editar  Ver  Terminal  Pestañas  Ayuda
.0    0.0    0.0
1     1      1      A01    0    1    101   S2   1    E5   W2   W3   2    0    2    0    0    1    1    2    0    0    1    1    491.66  0.0   0
.0    238.72 252.94
1     19     1      Y49    9    94   9401  S4   2    E9   W3   W4   2    0    2    0    0    2    0    2    0    0    2    0    675.97  0.0   0
.0    675.97 0.0
1     1      1      A01              NA    1    E1   NA   NA   178  178  0    0    0    0    0    0    0    0    0    0    0.0     0.0   0
.0    0.0    0.0
Time taken: 70.688 seconds, Fetched: 100 row(s)
hive> select* from aseg2020 order by cve subdelegacion limit 100;
WARNING: Hive-on-MR is deprecated in Hive 2 and may not be available in the future versions. Consider using a different execution engine (i.e. spark, tez) or using Hive 1.X releases.
Query ID = oem_20211114185041_98f3f36f-e514-4e99-a437-286a9a95b4e2
Total jobs = 1
Launching Job 1 out of 1
Number of reduce tasks determined at compile time: 1
In order to change the average load for a reducer (in bytes):
  set hive.exec.reducers.bytes.per.reducer=<number>
In order to limit the maximum number of reducers:
  set hive.exec.reducers.max=<number>
In order to set a constant number of reducers:
  set mapreduce.job.reduces=<number>
Starting Job = job_1636936587774_0003, Tracking URL = http://oem-VirtualBox:8088/proxy/application_1636936587774_0003/
Kill Command = /usr/local/hadoop/bin/hadoop job  -kill job_1636936587774_0003
Hadoop job information for Stage-1: number of mappers: 4; number of reducers: 1
2021-11-14 18:50:51,360 Stage-1 map = 0%,  reduce = 0%
2021-11-14 18:51:12,415 Stage-1 map = 25%,  reduce = 0%, Cumulative CPU 45.22 sec
2021-11-14 18:51:14,470 Stage-1 map = 30%,  reduce = 0%, Cumulative CPU 50.93 sec
2021-11-14 18:51:15,511 Stage-1 map = 43%,  reduce = 0%, Cumulative CPU 62.1 sec
2021-11-14 18:51:27,015 Stage-1 map = 49%,  reduce = 0%, Cumulative CPU 84.42 sec
2021-11-14 18:51:28,052 Stage-1 map = 55%,  reduce = 0%, Cumulative CPU 89.24 sec
2021-11-14 18:51:31,172 Stage-1 map = 71%,  reduce = 0%, Cumulative CPU 91.95 sec
2021-11-14 18:51:32,196 Stage-1 map = 71%,  reduce = 17%, Cumulative CPU 92.23 sec
2021-11-14 18:51:37,325 Stage-1 map = 86%,  reduce = 17%, Cumulative CPU 107.25 sec
2021-11-14 18:51:38,377 Stage-1 map = 100%,  reduce = 17%, Cumulative CPU 111.68 sec
2021-11-14 18:51:40,468 Stage-1 map = 100%,  reduce = 100%, Cumulative CPU 113.74 sec
MapReduce Total cumulative CPU time: 1 minutes 53 seconds 740 msec
Ended Job = job_1636936587774_0003
MapReduce Jobs Launched:
Stage-Stage-1: Map: 4  Reduce: 1   Cumulative CPU: 113.74 sec   HDFS Read: 1116382405 HDFS Write: 9663 SUCCESS
Total MapReduce CPU Time Spent: 1 minutes 53 seconds 740 msec
OK
27    1      26     E64    0    1    101   S2   1    E13  W2   W2   1    0    1    0    0    0    1    1    0    0    0    1    148.1   0.0   0
.0    0.0    148.1
27    1      26     E64    0    1    101   S2   1    E12  W2   W3   3    0    3    0    1    0    2    3    0    1    0    2    712.07  0.0   1
90.7  0.0    521.37
27    1      26     E64    0    1    101   S2   1    E12  W2   W2   5    0    5    0    1    2    2    5    0    1    2    2    740.5   0.0   1
48.1  296.2  296.2
27    1      26     E64    0    1    101   S2   1    E11  W3   W4   2    0    2    0    0    1    1    2    0    0    1    1    627.12  0.0   0
.0    313.56 313.56
27    1      26     E64    0    1    101   S2   1    E11  W2   W3   1    0    1    0    1    0    0    1    0    1    0    0    200.0   0.0   2
00.0  0.0    0.0
27    1      26     E64    0    1    101   S2   1    E10  W2   W3   4    0    4    0    0    2    2    4    0    0    2    2    909.69  0.0   0
.0    427.07 482.62
27    1      26     E64    0    1    101   S2   1    E10  W2   W2   14   0    14   0    0    2    12   14   0    0    2    12   2135.92 0.0   0
.0    323.44 1812.48
27    1      26     E64    0    1    101   S2   1    E10  W11  W17  1    0    1    0    0    1    0    1    0    0    1    0    1488.47 0.0   0
.0    1488.47 0.0
27    1      26     E64    0    1    101   S1   2    E9   W2   W3   1    0    1    0    0    1    0    1    0    0    1    0    200.0   0.0   0
```