

MapReduce

miércoles, 29 de abril de 2020 15:36

- Ejecutar y registrar en bitacora ejemplo de wordcount-local.py y en MapReduce con mrjob de wordcount-mr.py en versión LOCAL

o Local

```
Windows PowerShell
PS C:\Users\Usuario\Documents\XVII\TET\bigdata-master> cd ..\02-mapreduce\
PS C:\Users\Usuario\Documents\XVII\TET\bigdata-master\02-mapreduce> python wordcount-local.py ../datasets/gutenberg-small/1/*.*txt | more
LINCOLN 108
LETTERS 9
By 225
Abraham 120
Lincoln 376
Published 3
By 4571
The 2460
Bibliophile 1
Society 7
NOTE 9
Letters 49
herein 14
are 2467
so 1917
thoroughly 15
Characteristic 18
of 23820
```

o Mrjob

```
[amartinezv@hdpjupyter 02-mapreduce]$ python wordcount-mr.py -r local ../datasets/gutenberg-small/1/*.*txt | more
No configs found; falling back on auto-configuration
No configs specified for local runner
Creating temp directory /tmp/wordcount-mr.amartinezv.20200410.025856.169324
Running step 1 of 1...
job output is in /tmp/wordcount-mr.amartinezv.20200410.025856.169324/output
streaming final output from /tmp/wordcount-mr.amartinezv.20200410.025856.169324/output...
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2
3 class PromedioSalarioSE(MRJob):
4
5     def mapper(self, _, line):
6         idemp, sececon, salary, year = line.split(',')
7         try:
8             salary = float(salary)
9         except ValueError:
10             pass
11         else:
12             yield sececon, salary
13
14
15     def reducer (self, sececon, salario):
16         sumSalario=0
17         cont =0
18         for s in salario:
19             sumSalario += s
20             cont += 1
21
22         yield sececon, sumSalario/cont
23
24 if __name__ == '__main__':
25     PromedioSalarioSE.run()

```

```

[amartinezv@hdpjupyter ~]$ python PromedioSalarioSE.py bigdata/datasets/otros/dataempleados.csv
No configs found; falling back on auto-configuration
No configs specified for inline runner
Creating temp directory /tmp/PromedioSalarioSE.amartinezv.20200413.201225.733947
Running step 1 of 1...
job output is in /tmp/PromedioSalarioSE.amartinezv.20200413.201225.733947/output
Streaming final output from /tmp/PromedioSalarioSE.amartinezv.20200413.201225.733947/output...
"1212" 77000.0
"1234" 37500.0
"1412" 76000.0
"3432" 34000.0
"5434" 36000.0
Removing temp directory /tmp/PromedioSalarioSE.amartinezv.20200413.201225.733947...
[amartinezv@hdpjupyter ~]$

```

2. El salario promedio por Empleado

 **jupyter** PromedioSalarioEmpleados.py ✓ hace unos segundos

```

File Edit View Language

1 from mrjob.job import MRJob
2
3 class PromedioSalarioEmpleados(MRJob):
4
5     def mapper(self, _, line):
6         idemp, sececon, salary, year = line.split(',')
7         try:
8             salary = float(salary)
9         except ValueError:
10             pass
11         else:
12             yield idemp, salary
13
14
15     def reducer (self, idemp, salario):
16         sumSalario=0
17         cont =0
18         for s in salario:
19             sumSalario += s
20             cont += 1
21
22         yield idemp, sumSalario/cont
23
24 if __name__ == '__main__':
25     PromedioSalarioEmpleados.run()

```

```

[amartinezv@hdpjupyter ~]$ python PromedioSalarioEmpleados.py bigdata/datasets/otros/dataempleados.csv
No configs found; falling back on auto-configuration
No configs specified for inline runner
Creating temp directory /tmp/PromedioSalarioEmpleados.amartinezv.20200413.201858.308225
Running step 1 of 1...
job output is in /tmp/PromedioSalarioEmpleados.amartinezv.20200413.201858.308225/output
Streaming final output from /tmp/PromedioSalarioEmpleados.amartinezv.20200413.201858.308225/output...
"1115" 62333.333333333336
"3233" 35500.0
"3237" 40000.0
Removing temp directory /tmp/PromedioSalarioEmpleados.amartinezv.20200413.201858.308225...
[amartinezv@hdpjupyter ~]$

```

3. Número de SE por Empleado que ha tenido a lo largo de la estadística

 **jupyter** NumeroSEporEmpleados.py ✓ hace un minuto

File Edit View Language

```
1 from mrjob.job import MRJob
2
3 class NumeroSEporEmpleados(MRJob):
4
5     def mapper(self, _, line):
6         idemp, sececon, salary, year = line.split(',')
7         try:
8             salary = float(salary)
9         except ValueError:
10            pass
11        else:
12            yield idemp, sececon
13
14
15    def reducer(self, idemp, sector):
16        cont = 0
17        for s in sector:
18            cont += 1
19
20        yield idemp, cont
21
22 if __name__ == '__main__':
23     NumeroSEporEmpleados.run()
```