



Projeto Final Disciplina Infraestrutura Hadoop

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Trabalho como Gerente de Compras em uma empresa que presta serviço de Infraestrutura de TI, além da venda de produtos do ramo.

Gerei pelo sistema da empresa (OMIE), relatórios de Compras, Vendas e de Fornecedores, dos últimos dois anos e meio, para analisar os dados e buscar insights para melhores decisões no meu setor.

Os relatórios foram gerados em planilhas.xlsx, transformados em CSV e tratados com Python/Pandas antes de serem carregados no Hadoop.

Google Cloud Platform

- Criei um bucket e fiz o upload dos arquivos csv.
- Criei um cluster usando o serviço Dataproc.

Através de uma conexão SSH, acessei o cluster para manipulação dos arquivos no Hadoop e no Hive.

Em ambiente local:

- Criei um diretório chamado myfiles e em seguida montei nesse diretório, através do GCSFUSE um espelho dos arquivos que estão no bucket no GCP.
 - - mkdir myfiles
 - - gcsfuse arquivos_hadoop myfiles

```

rafael_dramos@cluster-9ecc-m:~$ ls
myfiles sakila-data.sql sakila-schema.sql sqoop-1.4.6.bin_hadoop-2.0.4-alpha sqoop-1.4.6.bin_hadoop-2.0.4-alpha.tar.gz
rafael_dramos@cluster-9ecc-m:~$ gcsfuse arquivos_hadoop myfiles
I0831 00:37:26.722136 2023/08/31 00:37:26.722102 Start gcsfuse/1.0.1 (Go version go1.20.5) for app "" using mount point: /home/rafael_dramos/myfiles
daemonize.Run: readFromProcess: sub-process: mountWithArgs: mountWithConn: Mount: mount: running /usr/bin/fusermount: exit status 1
rafael_dramos@cluster-9ecc-m:~$ ls myfiles
'SnP500 All assets.csv' compras.csv drivers.csv timesheet.csv vendas.csv walmart.csv
rafael_dramos@cluster-9ecc-m:~$

```

Em ambiente HDFS:

- Criei um diretório chamado “projeto”, no /user do HDFS, para posteriormente copiar os arquivos para a pasta.

```
- - hdfs dfs -mkdir /user/projeto
```

- Dentro da pasta myfiles, copiei os arquivos CSV para o destino /user/projeto no HDFS.

```
- - hdfs dfs -put compras.csv /user/projeto
```

```
- - hdfs dfs -put vendas.csv /user/projeto
```

```
- - hdfs dfs -put fornecedores.csv /user/projeto
```

```

rafael_dramos@cluster-9ecc-m:~$ hdfs dfs -ls /user
Found 14 items
drwxrwxrwt - hdfs hadoop 0 2023-08-07 23:36 /user/dataproc
drwxr-xr-x - rafaeldramos hadoop 0 2023-08-19 02:08 /user/exemplo2
drwxrwxrwt - hdfs hadoop 0 2023-08-07 23:36 /user/hbase
drwxrwxrwt - hdfs hadoop 0 2023-08-07 23:36 /user/hdfs
drwxrwxrwt - hdfs hadoop 0 2023-08-17 01:41 /user/hive
drwxrwxrwt - hdfs hadoop 0 2023-08-07 23:36 /user/mapred
drwxrwxrwt - hdfs hadoop 0 2023-08-07 23:36 /user/pig
drwxr-xr-x - rafaeldramos hadoop 0 2023-08-15 02:38 /user/rafael
drwxrwxrwt - hdfs hadoop 0 2023-08-07 23:36 /user/solr
drwxrwxrwt - hdfs hadoop 0 2023-08-07 23:36 /user/spark
drwxr-xr-x - rafaeldramos hadoop 0 2023-08-22 01:42 /user/timesheet
drwxrwxrwt - hdfs hadoop 0 2023-08-07 23:36 /user/yarn
drwxrwxrwt - hdfs hadoop 0 2023-08-07 23:36 /user/zeppelin
drwxrwxrwt - hdfs hadoop 0 2023-08-07 23:36 /user/zookeeper
rafael_dramos@cluster-9ecc-m:~$ hdfs dfs -mkdir /user/projeto
rafael_dramos@cluster-9ecc-m:~$ hdfs dfs -ls /user
Found 15 items
drwxrwxrwt - hdfs hadoop 0 2023-08-07 23:36 /user/dataproc
drwxr-xr-x - rafaeldramos hadoop 0 2023-08-19 02:08 /user/exemplo2
drwxrwxrwt - hdfs hadoop 0 2023-08-07 23:36 /user/hbase
drwxrwxrwt - hdfs hadoop 0 2023-08-07 23:36 /user/hdfs
drwxrwxrwt - hdfs hadoop 0 2023-08-17 01:41 /user/hive
drwxrwxrwt - hdfs hadoop 0 2023-08-07 23:36 /user/mapred
drwxrwxrwt - hdfs hadoop 0 2023-08-07 23:36 /user/pig
drwxr-xr-x - rafaeldramos hadoop 0 2023-08-31 00:42 /user/projeto
drwxr-xr-x - rafaeldramos hadoop 0 2023-08-15 02:38 /user/rafael
drwxrwxrwt - hdfs hadoop 0 2023-08-07 23:36 /user/solr
drwxrwxrwt - hdfs hadoop 0 2023-08-07 23:36 /user/spark
drwxr-xr-x - rafaeldramos hadoop 0 2023-08-22 01:42 /user/timesheet
drwxrwxrwt - hdfs hadoop 0 2023-08-07 23:36 /user/yarn
drwxrwxrwt - hdfs hadoop 0 2023-08-07 23:36 /user/zeppelin
drwxrwxrwt - hdfs hadoop 0 2023-08-07 23:36 /user/zookeeper
rafael_dramos@cluster-9ecc-m:~$

```

```

rafael_dramos@cluster-9ecc-m:~$ ls
myfiles sakila-data.sql sakila-schema.sql sqoop-1.4.6.bin__hadoop-2.0.4-alpha sqoop-1.4.6.bin__hadoop-2.0.4-alpha.tar.gz
rafael_dramos@cluster-9ecc-m:~$ cd myfiles
rafael_dramos@cluster-9ecc-m:~/myfiles$ ls
'SnP500 All assets.csv' compras.csv drivers.csv timesheet.csv vendas.csv walmart.csv
rafael_dramos@cluster-9ecc-m:~/myfiles$ hdfs dfs -put compras.csv /user/projeto
rafael_dramos@cluster-9ecc-m:~/myfiles$ hdfs dfs -put vendas.csv /user/projeto
rafael_dramos@cluster-9ecc-m:~/myfiles$ hdfs dfs -ls /user/projeto
Found 2 items
-rw-r--r-- 1 rafaél_dramos hadoop 499858 2023-08-31 01:43 /user/projeto/compras.csv
-rw-r--r-- 1 rafaél_dramos hadoop 677650 2023-08-31 01:43 /user/projeto/vendas.csv
rafael_dramos@cluster-9ecc-m:~/myfiles$

```

```

rafael_dramos@cluster-9ecc-m:~/myfiles$ hdfs dfs -put fornecedores.csv /user/projeto
rafael_dramos@cluster-9ecc-m:~/myfiles$ hdfs dfs -ls /user/projeto
Found 3 items
-rw-r--r-- 1 rafaél_dramos hadoop 499858 2023-08-31 01:43 /user/projeto/compras.csv
-rw-r--r-- 1 rafaél_dramos hadoop 216716 2023-08-31 02:02 /user/projeto/fornecedores.csv
-rw-r--r-- 1 rafaél_dramos hadoop 677650 2023-08-31 01:43 /user/projeto/vendas.csv
rafael_dramos@cluster-9ecc-m:~/myfiles$

```

HIVE

- Instalação do client JDBC do Hive, para manipulação das tabelas através de SQLLine no HDFS.
 - - beeline -u jdbc:hive2://localhost:10000/default -n rafaél_dramos@cluster-9ecc-m -d org.apache.hive.jdbc.HiveDriver
- Criação do banco de dados e conexão
 - - create database adm;
 - - use adm;

```

rafael.dramos@cluster-9ecc-m:~$ baseline -u jdbc:hive2://localhost:10000/default -n rafael.dramos@cluster-9ecc-m -d org.apache.hive.jdbc.HiveDriver
Connecting to jdbc:hive2://localhost:10000/default
Connected to: Apache Hive (version 3.1.3)
Driver: Hive JDBC (version 3.1.3)
Transaction isolation: TRANSACTION_REPEATABLE_READ
Beeline version 3.1.3 by Apache Hive
0: jdbc:hive2://localhost:10000/default> show databases;
INFO : Compiling command(queryId=hive_20230831014730_33bc9041-226e-4ecf-980f-96c49e6c36ff): show databases
INFO : Concurrency mode is disabled, not creating a lock manager
INFO : Semantic Analysis Completed (retrial = false)
INFO : Returning Hive schema: Schema(fieldSchemas:[FieldSchema(name:database_name, type:string, comment:from deserializer)], properties:null)
INFO : Completed compiling command(queryId=hive_20230831014730_33bc9041-226e-4ecf-980f-96c49e6c36ff); Time taken: 0.023 seconds
INFO : Concurrency mode is disabled, not creating a lock manager
INFO : Executing command(queryId=hive_20230831014730_33bc9041-226e-4ecf-980f-96c49e6c36ff): show databases
INFO : Starting task [Stage-0:DDL] in serial mode
INFO : Completed executing command(queryId=hive_20230831014730_33bc9041-226e-4ecf-980f-96c49e6c36ff); Time taken: 0.015 seconds
INFO : OK
INFO : Concurrency mode is disabled, not creating a lock manager
+-----+
| database_name |
+-----+
| adm            |
| default        |
| movie          |
| my_db          |
+-----+
4 rows selected (0.172 seconds)
0: jdbc:hive2://localhost:10000/default> use adm;
INFO : Compiling command(queryId=hive_20230831014743_df94d8b5-6f9d-4b64-bcdb-ab64f575fc54): use adm
INFO : Concurrency mode is disabled, not creating a lock manager
INFO : Semantic Analysis Completed (retrial = false)
INFO : Returning Hive schema: Schema(fieldSchemas:null, properties:null)
INFO : Completed compiling command(queryId=hive_20230831014743_df94d8b5-6f9d-4b64-bcdb-ab64f575fc54); Time taken: 0.024 seconds
INFO : Concurrency mode is disabled, not creating a lock manager
INFO : Executing command(queryId=hive_20230831014743_df94d8b5-6f9d-4b64-bcdb-ab64f575fc54): use adm
INFO : Starting task [Stage-0:DDL] in serial mode
INFO : Completed executing command(queryId=hive_20230831014743_df94d8b5-6f9d-4b64-bcdb-ab64f575fc54); Time taken: 0.012 seconds
INFO : OK
INFO : Concurrency mode is disabled, not creating a lock manager
No rows affected (0.059 seconds)
0: jdbc:hive2://localhost:10000/default>

```

- Criação das tabelas e carregamento de dados

CREATE TABLE compras (Descricao STRING, Data STRING, Fornecedor STRING, Nota_Fiscal INT, Quantidade INT, Valor_Mercadoria FLOAT, ipi FLOAT, icms FLOAT)

ROW FORMAT DELIMITED

FIELDS TERMINATED BY ','

STORED AS TEXTFILE;

```

0: jdbc:hive2://localhost:10000/default> CREATE TABLE compras (Descricao STRING, Data STRING, Fornecedor STRING, Nota_Fiscal INT, Quantidade INT, Valor_Mercadoria STRING, ipi STRING, icms STRING
)
. . . . .> ROW FORMAT DELIMITED
. . . . .> FIELDS TERMINATED BY ','
. . . . .> STORED AS TEXTFILE;
INFO : Compiling command(queryId=hive_20230831025130_f6b6e677-6417-44b0-8ed0-bb3311fbcd6c): CREATE TABLE compras (Descricao STRING, Data STRING, Fornecedor STRING, Nota_Fiscal INT, Quantidade I
NT, Valor_Mercadoria STRING, ipi STRING, icms STRING)
ROW FORMAT DELIMITED
FIELDS TERMINATED BY ','
STORED AS TEXTFILE
INFO : Concurrency mode is disabled, not creating a lock manager
INFO : Semantic Analysis Completed (retrial = false)
INFO : Returning Hive schema: Schema(fieldSchemas:null, properties:null)
INFO : Completed compiling command(queryId=hive_20230831025130_f6b6e677-6417-44b0-8ed0-bb3311fbcd6c); Time taken: 0.089 seconds
INFO : Concurrency mode is disabled, not creating a lock manager
INFO : Executing command(queryId=hive_20230831025130_f6b6e677-6417-44b0-8ed0-bb3311fbcd6c): CREATE TABLE compras (Descricao STRING, Data STRING, Fornecedor STRING, Nota_Fiscal INT, Quantidade I
NT, Valor_Mercadoria STRING, ipi STRING, icms STRING)
ROW FORMAT DELIMITED
FIELDS TERMINATED BY ','
STORED AS TEXTFILE
INFO : Starting task [Stage-0:DDL] in serial mode
INFO : Completed executing command(queryId=hive_20230831025130_f6b6e677-6417-44b0-8ed0-bb3311fbcd6c); Time taken: 0.571 seconds
INFO : OK
INFO : Concurrency mode is disabled, not creating a lock manager
No rows affected (0.748 seconds)
0: jdbc:hive2://localhost:10000/default>
0: jdbc:hive2://localhost:10000/default>

```

CREATE TABLE vendas (descricao STRING, data STRING, total INT, imposto_federal STRING, imposto_estadual STRING)

ROW FORMAT DELIMITED

FIELDS TERMINATED BY ','

STORED AS TEXTFILE;

```
0: jdbc:hive2://localhost:10000/default> CREATE TABLE vendas (descricao STRING, data STRING, total INT, imposto_federal STRING, imposto_estadual STRING)
.....-> ROW FORMAT DELIMITED
.....-> FIELDS TERMINATED BY ','
.....-> STORED AS TEXTFILE;
INFO : Compiling command(queryId=hive_20230831025242_4820a9dc-4485-49f3-ad5b-b1597f99628e): CREATE TABLE vendas (descricao STRING, data STRING, total INT, imposto_federal STRING, imposto_estadual STRING)
ROW FORMAT DELIMITED
FIELDS TERMINATED BY ','
STORED AS TEXTFILE
INFO : Concurrency mode is disabled, not creating a lock manager
INFO : Semantic Analysis Completed (retrial = false)
INFO : Returning Hive schema: Schema(fieldSchemas:null, properties:null)
INFO : Completed compiling command(queryId=hive_20230831025242_4820a9dc-4485-49f3-ad5b-b1597f99628e); Time taken: 0.055 seconds
INFO : Concurrency mode is disabled, not creating a lock manager
INFO : Executing command(queryId=hive_20230831025242_4820a9dc-4485-49f3-ad5b-b1597f99628e): CREATE TABLE vendas (descricao STRING, data STRING, total INT, imposto_federal STRING, imposto_estadual STRING)
ROW FORMAT DELIMITED
FIELDS TERMINATED BY ','
STORED AS TEXTFILE
INFO : Starting task [Stage-0:DDL] in serial mode
INFO : Completed executing command(queryId=hive_20230831025242_4820a9dc-4485-49f3-ad5b-b1597f99628e); Time taken: 0.089 seconds
INFO : OK
INFO : Concurrency mode is disabled, not creating a lock manager
No rows affected (0.176 seconds)
0: jdbc:hive2://localhost:10000/default>
```

CREATE TABLE fornecedores (cnpj_cpf STRING, fornecedor STRING, telefone STRING, email STRING, cidade STRING, inscricao_estadual INT, contribuinte_icms STRING)

ROW FORMAT DELIMITED

FIELDS TERMINATED BY ','

STORED AS TEXTFILE;

```
0: jdbc:hive2://localhost:10000/default> CREATE TABLE fornecedores (cnpj_cpf INT, razao_social STRING, nome_fantasia STRING, telefone INT, email STRING, cidade STRING, estado STRING, inscricao_estadual INT, contribuinte_icms STRING)
.....-> ROW FORMAT DELIMITED
.....-> FIELDS TERMINATED BY ','
.....-> STORED AS TEXTFILE;
INFO : Compiling command(queryId=hive_20230831025603_3241b2c9-06c5-4551-8945-2690f6cc0772): CREATE TABLE fornecedores (cnpj_cpf INT, razao_social STRING, nome_fantasia STRING, telefone INT, email STRING, cidade STRING, estado STRING, inscricao_estadual INT, contribuinte_icms STRING)
ROW FORMAT DELIMITED
FIELDS TERMINATED BY ','
STORED AS TEXTFILE
INFO : Concurrency mode is disabled, not creating a lock manager
INFO : Semantic Analysis Completed (retrial = false)
INFO : Returning Hive schema: Schema(fieldSchemas:null, properties:null)
INFO : Completed compiling command(queryId=hive_20230831025603_3241b2c9-06c5-4551-8945-2690f6cc0772); Time taken: 0.042 seconds
INFO : Concurrency mode is disabled, not creating a lock manager
INFO : Executing command(queryId=hive_20230831025603_3241b2c9-06c5-4551-8945-2690f6cc0772): CREATE TABLE fornecedores (cnpj_cpf INT, razao_social STRING, nome_fantasia STRING, telefone INT, email STRING, cidade STRING, estado STRING, inscricao_estadual INT, contribuinte_icms STRING)
ROW FORMAT DELIMITED
FIELDS TERMINATED BY ','
STORED AS TEXTFILE
INFO : Starting task [Stage-0:DDL] in serial mode
INFO : Completed executing command(queryId=hive_20230831025603_3241b2c9-06c5-4551-8945-2690f6cc0772); Time taken: 0.089 seconds
INFO : OK
INFO : Concurrency mode is disabled, not creating a lock manager
No rows affected (0.167 seconds)
0: jdbc:hive2://localhost:10000/default>
```

O carregamento dos dados na tabela é feito através da sintaxe abaixo:

LOAD DATA INPATH '/user/projeto/compras.csv' overwrite into table compras;

LOAD DATA INPATH '/user/projeto/vendas.csv' overwrite into table vendas;

LOAD DATA INPATH '/user/projeto/fornecedores.csv' overwrite into table fornecedores;


```
0: jdbc:hive2://localhost:10000/default> LOAD DATA INPATH '/user/projeto/compras.csv' overwrite into table compras;
INFO : Compiling command(queryId=hive_20230831030011_c4fd8b8d-eece-4f51-84d2-891a79d98dc1): LOAD DATA INPATH '/user/projeto/compras.csv' overwrite into table compras
INFO : Concurrency mode is disabled, not creating a lock manager
INFO : Semantic Analysis Completed (retrial = false)
INFO : Returning Hive schema: Schema(fieldSchemas:null, properties:null)
INFO : Completed compiling command(queryId=hive_20230831030011_c4fd8b8d-eece-4f51-84d2-891a79d98dc1); Time taken: 0.387 seconds
INFO : Concurrency mode is disabled, not creating a lock manager
INFO : Executing command(queryId=hive_20230831030011_c4fd8b8d-eece-4f51-84d2-891a79d98dc1): LOAD DATA INPATH '/user/projeto/compras.csv' overwrite into table compras
INFO : Starting task [Stage-0:MOVE] in serial mode
INFO : Loading data to table adm.compras from hdfs://cluster-3ecc-m/user/projeto/compras.csv
INFO : Starting task [Stage-1:STATS] in serial mode
INFO : Completed executing command(queryId=hive_20230831030011_c4fd8b8d-eece-4f51-84d2-891a79d98dc1); Time taken: 0.397 seconds
INFO : OK
INFO : Concurrency mode is disabled, not creating a lock manager
No rows affected (0.817 seconds)
0: jdbc:hive2://localhost:10000/default>
```

```
0: jdbc:hive2://localhost:10000/default> LOAD DATA INPATH '/user/projeto/vendas.csv' overwrite into table vendas;
INFO : Compiling command(queryId=hive_20230831030100_e5ece910-d378-4f85-8488-0428ef34420c): LOAD DATA INPATH '/user/projeto/vendas.csv' overwrite into table vendas
INFO : Concurrency mode is disabled, not creating a lock manager
INFO : Semantic Analysis Completed (retrial = false)
INFO : Returning Hive schema: Schema(fieldSchemas:null, properties:null)
INFO : Completed compiling command(queryId=hive_20230831030100_e5ece910-d378-4f85-8488-0428ef34420c); Time taken: 0.079 seconds
INFO : Concurrency mode is disabled, not creating a lock manager
INFO : Executing command(queryId=hive_20230831030100_e5ece910-d378-4f85-8488-0428ef34420c): LOAD DATA INPATH '/user/projeto/vendas.csv' overwrite into table vendas
INFO : Starting task [Stage-0:MOVE] in serial mode
INFO : Loading data to table adm.vendas from hdfs://cluster-3ecc-m/user/projeto/vendas.csv
INFO : Starting task [Stage-1:STATS] in serial mode
INFO : Completed executing command(queryId=hive_20230831030100_e5ece910-d378-4f85-8488-0428ef34420c); Time taken: 0.327 seconds
INFO : OK
INFO : Concurrency mode is disabled, not creating a lock manager
No rows affected (0.433 seconds)
0: jdbc:hive2://localhost:10000/default>
```

```
0: jdbc:hive2://localhost:10000/default> LOAD DATA INPATH '/user/projeto/fornecedores.csv' overwrite into table fornecedores;
INFO : Compiling command(queryId=hive_20230831030215_6c10cid7-b2e0-46a5-8223-fc65209a57b3): LOAD DATA INPATH '/user/projeto/fornecedores.csv' overwrite into table fornecedores
INFO : Concurrency mode is disabled, not creating a lock manager
INFO : Semantic Analysis Completed (retrial = false)
INFO : Returning Hive schema: Schema(fieldSchemas:null, properties:null)
INFO : Completed compiling command(queryId=hive_20230831030215_6c10cid7-b2e0-46a5-8223-fc65209a57b3); Time taken: 0.095 seconds
INFO : Concurrency mode is disabled, not creating a lock manager
INFO : Executing command(queryId=hive_20230831030215_6c10cid7-b2e0-46a5-8223-fc65209a57b3): LOAD DATA INPATH '/user/projeto/fornecedores.csv' overwrite into table fornecedores
INFO : Starting task [Stage-0:MOVE] in serial mode
INFO : Loading data to table adm.fornecedores from hdfs://cluster-3ecc-m/user/projeto/fornecedores.csv
INFO : Starting task [Stage-1:STATS] in serial mode
INFO : Completed executing command(queryId=hive_20230831030215_6c10cid7-b2e0-46a5-8223-fc65209a57b3); Time taken: 0.297 seconds
INFO : OK
INFO : Concurrency mode is disabled, not creating a lock manager
No rows affected (0.416 seconds)
0: jdbc:hive2://localhost:10000/default>
```

Vamos agora buscar algumas informações nas tabelas, usando sintaxe de SQL através do HIVE.

Abaixo nós solicitamos somente compras realizadas no fornecedor DIGITAL SAT.

```
0: jdbc:hive2://localhost:10000/default> select * from compras where fornecedor = 'DIGITAL SAT' limit 50;
INFO : Compiling command(queryId=hive_20230901021512_466d6506-7988-4e50-a396-a7f1c56222ee): select * from compras where fornecedor = 'DIGITAL SAT' limit 10
INFO : Concurrency mode is disabled, not creating a lock manager
INFO : Semantic Analysis Completed (retrial = false)
INFO : Returning Hive schema: Schema(fieldSchemas:[FieldSchema(name=compras.descricao, type:string, comment:null), FieldSchema(name=compras.data, type:string, comment:null), FieldSchema(name=compras.fornecedor, type:string, comment=null), FieldSchema(name=compras.nota_fiscal, type:int, comment:null), FieldSchema(name=compras.quantidade, type:int, comment:null), FieldSchema(name=compras.valor_mercadoria, type=float, comment:null), FieldSchema(name=compras.igst, type=float, comment:null), FieldSchema(name=compras.imo, type=float, comment:null), properties:null])
INFO : Completed compiling command(queryId=hive_20230901021512_466d6506-7988-4e50-a396-a7f1c56222ee); Time taken: 0.196 seconds
INFO : Concurrency mode is disabled, not creating a lock manager
INFO : Executing command(queryId=hive_20230901021512_466d6506-7988-4e50-a396-a7f1c56222ee): select * from compras where fornecedor = 'DIGITAL SAT' limit 10
INFO : Query ID = hive_20230901021512_466d6506-7988-4e50-a396-a7f1c56222ee
INFO : Total jobs = 1
INFO : Launching Job 1 out of 1
INFO : Starting task [Stage-1:MAPRED] in serial mode
INFO : Subscribed to containers: [1 for queryId: hive_20230901021512_466d6506-7988-4e50-a396-a7f1c56222ee
INFO : Session is already open
INFO : Dag name: select * from compras where fornecedor ...10 [Stage=1]
INFO : Status: Running (Executing on YARN cluster with App ID application_1692522714076_8001)
```

VERTICES	HEUR	STATUS	TOTAL	COMPLETED	RUNNING	PENDING	FAILED	KILLED
Map 1	Container	SUCCEEDED	1	1	0	0	0	0

```
VERTICES 61/61 [=====] 100% ELAPSED TIME: 0.39 s
INFO : Completed executing command(queryId=hive_20230901021512_466d6506-7988-4e50-a396-a7f1c56222ee); Time taken: 8.531 seconds
INFO : OK
INFO : Concurrency mode is disabled, not creating a lock manager
```

	compras.descricao	compras.data	compras.fornecedor	compras.nota_fiscal	compras.quantidade	compras.valor_mercadoria	compras.igst	compras.imo
1	MERKOTEC CLOUD SMART SWITCH CS3226	2021-11-29	DIGITAL SAT	1205067	2	2107.46	216.12	252.9
2	CAIXA HENRIETTA 10010	2021-11-29	DIGITAL SAT	15776	20	207.6	0.0	24.91
3	CONECTOR CORN 1000 RJ45 CAT5E	2021-11-29	DIGITAL SAT	15837	2	51.44	0.0	6.17
4	CONECTOR CORN 1000 RJ45 CAT5	2021-11-29	DIGITAL SAT	15837	4	113.44	0.0	13.88
5	MODULO INTELIGENTE PORTARIA MIP 1000	2021-11-29	DIGITAL SAT	15837	1	459.03	0.0	58.69
6	MINI BACK DEMONTAVEL 120 570MM	2021-12-01	DIGITAL SAT	15951	1	622.81	0.0	74.74
7	GRAVADOR HENRI 1216	2021-12-01	DIGITAL SAT	15951	1	1039.4	0.0	124.72
8	BATERIA MINI 12V 325 ELGIN	2021-12-01	DIGITAL SAT	15983	15	37.05	0.0	4.45
9	VOICE PANEL 50 PORTAS CAT4 10 PRETO NEXANS	2021-12-01	DIGITAL SAT	15983	1	504.9	0.0	60.59
10	CABO HENRI MACH HENRI BANC 2000	2021-12-01	DIGITAL SAT	15984	1	23.24	0.0	2.99

```
10 rows selected (8.502 seconds)
0: jdbc:hive2://localhost:10000/default> ||
```

Abaixo nós buscamos somente compras realizadas no fornecedor DIGITAL SAT, entre os valores 1000 e 5000 reais.

```
jdbc:hive2://localhost:10000/default? select * from compas where forwardcor = 'DIGITAL SAT' and valor_mercaderia >= '1000' and valor_mercaderia < 5000 limit 10;
INFO Compiling command is disabled, not creating a lock manager
INFO Concurrently Command Completed (retail) : failed
INFO Returning Hive schema: Schema(fieldSchemas:[FieldSchema(name:compas.descripcion, type:string, comment:null), FieldSchema(name:compas.data, type:string, comment:null), FieldSchema(name:compas.forwardcor, type:string, comment:null), FieldSchema(name:compas.valor_fiscal, type=float, comment:null), FieldSchema(name:compas.valor_mercaderia, type=float, comment:null), FieldSchema(name:compas.valor_mercaderia, type=float, comment:null), FieldSchema(name:compas.impi, type=float, comment:null), FieldSchema(name:compas.imms, type=float, comment:null)], properties:{})
INFO Completed compiling command(queryId=hive-20230901024731_c8bCh2Lr-75Se-fe0d-a9f-b6fd6850950e); Time taken: 0.252 seconds
INFO Query made is disabled, not creating a lock manager
INFO Query ID = hive_20230901024731_c8bCh2Lr-75Se-fe0d-a9f-b6fd6850950e
Total jobs = 4
Launching Job 1 out of 1
Starting task [Stage-1 MapReduce] in serial mode
Submitted to executor [[ for queryId=hive_20230901024731_c8bCh2Lr-75Se-fe0d-a9f-b6fd6850950e
Session is already open
Day name: select * from compas where forwardcor =..10 [Stage-1]
Status: Running (Executing on YARN cluster with App id application_16932522745076_0001)
```

VERTICES	NKES	STATUS	TOTAL COMPLETED	RUNNING	PENDING	FAILED	KILLED
Map 1	container	SUCCEEDED	1	1	0	0	0

```
VERTICES: 0/101 [=====] 100% ELAPSED TIME: 0:01 s
```

```
INFO Completed executing command(queryId=hive-20230901024731_c8bCh2Lr-75Se-fe0d-a9f-b6fd6850950e); Time taken: 0.300 seconds
INFO OK
INFO Concurrency mode is disabled, not creating a lock manager
```

	compas.descripcion	compas.data	compas.forwardcor	compas.valor_fiscal	compas.quantidade	compas.valor_mercaderia	compas.impi	compas.imms
1	MICROTE CLOUD SMART WATCH CH39326	2021-11-29	DIGITAL SAT	209067	2	2107.46	0.0	262.9
2	GRABADOR MKXK 1216	2021-12-01	DIGITAL SAT	15861	1	1029.4	0.0	124.72
3	TELEFONO H	2021-12-09	DIGITAL SAT	15861	6	0.0	0.0	145.28
4	CAMERA VHS 1120 D	2021-12-15	DIGITAL SAT	15869	10	1020.67	0.0	122.47
5	CAMERA INTELLIAS VH 1120D 05	2021-12-15	DIGITAL SAT	15869	10	1163.2	0.0	143.18
6	MICROTE CLOUD SMART WATCH CH39326	2021-12-17	DIGITAL SAT	210064	2	2720.8	0.0	256.4
7	MODULO CONVERSION MINI GRC INTELLIAS RUSD 2110 A	2022-01-03	DIGITAL SAT	210028	6	1237.74	0.0	159.33
8	MODULO CONVERSION MINI GRC INTELLIAS RUSD 2110 B	2022-01-03	DIGITAL SAT	210028	6	1397.46	0.0	167.7
9	GRABADOR DE VIDEO MKXK 1216	2022-01-04	DIGITAL SAT	209068	1	1030.4	0.0	124.73
10	GRABADOR DE VIDEO MKXK 3016	2022-01-06	DIGITAL SAT	20768	1	1030.4	0.0	145.36

```
10 rows selected (5.614 seconds)
0: jdbc:hive2://localhost:10000/default?
```

Abaixo nós buscamos pelas colunas nota fiscal e valor de mercadoria, compras realizadas acima de 5.000 reais e abaixo de 10.000 reais.

```

0: row selected (9.673 seconds)
0: jdbc:hive2://localhost:10000/default?select distinct nota_fiscal, valor_mercaderia from compuras where valor_mercaderia > '5000' and valor_mercaderia < '10000' limit 20;
INFO Compiling command(queryId=hive_20230901032241_83cfcb75-840b-4f29-ad0b-5c9943ccc21f): select distinct nota_fiscal, valor_mercaderia from compuras where valor_mercaderia > '5000' and valor_mercaderia < '10000' limit 20
INFO Concurrency mode is disabled, not creating a Lock manager
INFO Semantic Analysis Completed (overall = false)
INFO Returning Hive schema: Schema(fieldSchemas:[FieldSchema(name=nota_fiscal, type:int, comment:null), FieldSchema(name=valor_mercaderia, type:float, comment:null)], properties:null)
INFO Completed compiling command(queryId=hive_20230901032241_83cfcb75-840b-4f29-ad0b-5c9943ccc21f): Time taken: 0.195 seconds
INFO Concurrency mode is disabled, not creating a Lock manager
INFO Executing command(queryId=hive_20230901032241_83cfcb75-840b-4f29-ad0b-5c9943ccc21f): select distinct nota_fiscal, valor_mercaderia from compuras where valor_mercaderia > '5000' and valor_mercaderia < '10000' limit 20
INFO Query ID = hive_20230901032241_83cfcb75-840b-4f29-ad0b-5c9943ccc21f
INFO Total jobs = 1
INFO Launching Job 1 out of 1
INFO Starting task (Stage=1:MAPRED) in serial mode
INFO Subscribed to counters: {} for queryId: hive_20230901032241_83cfcb75-840b-4f29-ad0b-5c9943ccc21f
INFO Session is already open
INFO Dog name: select distinct nota_fiscal, valor_merc...20 (Stage=1)
INFO Status: Running (Executing on YARN cluster with App id application_1692522714076_0005)

-----
VERTICES      MEAS      STATUS TOTAL COMPLETED RUNNING PENDING FAILED KILLED
Map 1 ..... containers      SUCCEEDED      1      1      0      0      0      0
Reducer 2 ..... containers      SUCCEEDED      1      1      0      0      0      0
VERTICES: 92/93 [.....] 100% ELAPSED TIME: 9.15 s
-----
INFO Completed executing command(queryId=hive_20230901032241_83cfcb75-840b-4f29-ad0b-5c9943ccc21f): Time taken: 9.415 seconds
INFO OK
INFO Concurrency mode is disabled, not creating a Lock manager

+-----+
| nota_fiscal | | valor_mercaderia |
+-----+
| NULL | | 5423.0 |
| 874 | | 6500.0 |
| 1291 | | 9250.0 |
| 1304 | | 5113.8 |
| 4155 | | 8450.0 |
| 4544 | | 5650.0 |
| 5668 | | 6000.0 |
| 5668 | | 7000.0 |
| 7913 | | 6500.0 |
| 21505 | | 7875.0 |
| 22500 | | 5471.88 |
| 25297 | | 5549.01 |
+-----+

```

Abaixo nós selecionamos por fornecedor e valor de mercadoria, compras realizadas na Pauta Distribuidora, ordenados do maior ao menor valor.

```
0: jdbc:hive2://localhost:10000/default> select fornecedor, valor_mercadoria from compras where fornecedor = 'PAUTA DISTRIBUIDORA - PR' order by valor_mercadoria desc limit 10;
INFO : Compiling command(queryId=hive_20230901034257_fe84691f-79fe-4a66-a1a1-1525eb6b0def): select fornecedor, valor_mercadoria from compras where fornecedor = 'PAUTA DISTRIBUIDORA - PR' order by valor_mercadoria desc limit 10
INFO : Concurrency mode is disabled, not creating a lock manager
INFO : Semantic Analysis Completed (retail = false)
INFO : Returning Hive schema: Schema(fieldSchemas:[FieldSchema(name=fornecedor, type:string, comment:null), FieldSchema(name=valor_mercadoria, type=float, comment:null)], properties:null)
INFO : Completed compiling command(queryId=hive_20230901034257_fe84691f-79fe-4a66-a1a1-1525eb6b0def); Time taken: 0.217 seconds
INFO : Concurrency mode is disabled, not creating a lock manager
INFO : Executing command(queryId=hive_20230901034257_fe84691f-79fe-4a66-a1a1-1525eb6b0def): select fornecedor, valor_mercadoria from compras where fornecedor = 'PAUTA DISTRIBUIDORA - PR' order by valor_mercadoria desc limit 10
INFO : Query ID = hive_20230901034257_fe84691f-79fe-4a66-a1a1-1525eb6b0def
INFO : Total jobs = 1
INFO : Launching Job 1 out of 1
INFO : Starting task [Stage-1:MAPRED] in serial mode
INFO : Subscribed to counters: {} for queryId: hive_20230901034257_fe84691f-79fe-4a66-a1a1-1525eb6b0def
INFO : Session is already open
INFO : Dag name: select fornecedor, valor_mercadoria fro...10 (Stage=1)
INFO : Task session was closed. Reopening...
INFO : Session re-established.
INFO : Session re-established.
INFO : Status: Running (Executing on YARN cluster with App id application_1693522714076_0006)

VERTICES      NAME      STATUS      TOTAL      COMPLETED      RUNNING      PENDING      FAILED      KILLED
Map 1 ..... container      SUCCEEDED      1      1      0      0      0      0
Reducer 2 ..... container      SUCCEEDED      1      1      0      0      0      0
-----
VERTICES: 02/02 (=====) 100% ELAPSED TIME: 11.04 s

INFO : Completed executing command(queryId=hive_20230901034257_fe84691f-79fe-4a66-a1a1-1525eb6b0def); Time taken: 22.299 seconds
INFO : OK
INFO : Concurrency mode is disabled, not creating a lock manager
+-----+
|      fornecedor      |      valor_mercadoria      |
+-----+
| PAUTA DISTRIBUIDORA - PR | 4399.2 |
| PAUTA DISTRIBUIDORA - PR | 4170.64 |
| PAUTA DISTRIBUIDORA - PR | 2035.48 |
| PAUTA DISTRIBUIDORA - PR | 2680.12 |
| PAUTA DISTRIBUIDORA - PR | 1217.53 |
| PAUTA DISTRIBUIDORA - PR | 1296.48 |
| PAUTA DISTRIBUIDORA - PR | 1235.76 |
| PAUTA DISTRIBUIDORA - PR | 1172.0 |
| PAUTA DISTRIBUIDORA - PR | 1161.6 |
| PAUTA DISTRIBUIDORA - PR | 1089.9 |
+-----+
10 rows selected (22.582 seconds)
0: jdbc:hive2://localhost:10000/default>
```

Abaixo nós solicitamos uma contagem pela descrição, para saber quantas vendas foram realizadas por produto.

```
10 rows selected (10.878 seconds)
0: jdbc:hive2://localhost:10000/default> select descricao, count(descricao) from vendas group by descricao order by descricao desc limit 10;
INFO : Compiling command(queryId=hive_20230902025032_0e857fbb-27de-4e93-a5c5-5bb449b70165): select descricao, count(descricao) from vendas group by descricao order by descricao desc limit 10
INFO : Concurrency mode is disabled, not creating a lock manager
INFO : Semantic Analysis Completed (retail = false)
INFO : Returning Hive schema: Schema(fieldSchemas:[FieldSchema(name=descricao, type:string, comment:null), FieldSchema(name=c1, type=bigint, comment:null)], properties:null)
INFO : Completed compiling command(queryId=hive_20230902025032_0e857fbb-27de-4e93-a5c5-5bb449b70165); Time taken: 0.224 seconds
INFO : Concurrency mode is disabled, not creating a lock manager
INFO : Executing command(queryId=hive_20230902025032_0e857fbb-27de-4e93-a5c5-5bb449b70165): select descricao, count(descricao) from vendas group by descricao order by descricao desc limit 10
INFO : Query ID = hive_20230902025032_0e857fbb-27de-4e93-a5c5-5bb449b70165
INFO : Total jobs = 1
INFO : Launching Job 1 out of 1
INFO : Starting task [Stage-1:MAPRED] in serial mode
INFO : Subscribed to counters: {} for queryId: hive_20230902025032_0e857fbb-27de-4e93-a5c5-5bb449b70165
INFO : Session is already open
INFO : Dag name: select descricao, count(descricao) from...10 (Stage=1)
INFO : Status: Running (Executing on YARN cluster with App id application_1693619728122_0003)

VERTICES      NAME      STATUS      TOTAL      COMPLETED      RUNNING      PENDING      FAILED      KILLED
Map 1 ..... container      SUCCEEDED      1      1      0      0      0      0
Reducer 2 ..... container      SUCCEEDED      1      1      0      0      0      0
Reducer 3 ..... container      SUCCEEDED      1      1      0      0      0      0
-----
VERTICES: 03/03 (=====) 100% ELAPSED TIME: 10.71 s

INFO : Completed executing command(queryId=hive_20230902025032_0e857fbb-27de-4e93-a5c5-5bb449b70165); Time taken: 10.99 seconds
INFO : OK
INFO : Concurrency mode is disabled, not creating a lock manager
+-----+
|      descricao      |      _c1      |
+-----+
| Descrição do Produto | 1 |
| " WATER COOLER CORSAIR HYDRO SERIES H100K 240MM LED BRANCO " | 1 |
| " VIDEO PORTEIRO RESIDENCIAL 7"" IVR 1070 HS (UN)" | 1 |
| " Tablet Samsung Galaxy Tab A8 10 " | 1 |
| " TURBO RETANGULAR C/ FRISO 50 " | 1 |
| " TELA PARA PROJETOR 70"" C/BOLSA PAG2250 (UN)" | 1 |
| " TELA LED SLIM PARA NOTEBOOK 15 " | 4 |
| " TELA LED PARA NOTEBOOK 15 " | 1 |
| " TELA LED 15 " | 4 |
| " TELA DE NOTEBOOK 15 " | 2 |
+-----+
10 rows selected (11.274 seconds)
0: jdbc:hive2://localhost:10000/default>
```


Abaixo nós podemos verificar o valor médio de venda por produto.

```
1,967 rows selected (11.788 seconds)
0: jdbc:hive2://localhost:10000/default: select descricao, avg(total) from vendas group by descricao limit 10;
INFO : Compiling command(queryId=hive_20230902025514_d31736f1-c5a6-4363-a0d2-3eb9f8ac29cd): select descricao, avg(total) from vendas group by descricao limit 10
INFO : Concurrency mode is disabled, not creating a lock manager
INFO : Semantic Analysis Completed (retail = false)
INFO : Returning Hive schema: Schema(fieldSchemas:[FieldSchema(name=descricao, type:string, comment:null), FieldSchema(name=c1, type=double, comment:null)], properties:null)
INFO : Completed compiling command(queryId=hive_20230902025514_d31736f1-c5a6-4363-a0d2-3eb9f8ac29cd); Time taken: 0.192 seconds
INFO : Concurrency mode is disabled, not creating a lock manager
INFO : Executing command(queryId=hive_20230902025514_d31736f1-c5a6-4363-a0d2-3eb9f8ac29cd): select descricao, avg(total) from vendas group by descricao limit 10
INFO : Query ID = hive_20230902025514_d31736f1-c5a6-4363-a0d2-3eb9f8ac29cd
INFO : Total jobs = 1
INFO : Launching Job 1 out of 1
INFO : Starting task [Stage-1:MAPRED] in serial mode
INFO : Subscribed to counters: {} for queryId: hive_20230902025514_d31736f1-c5a6-4363-a0d2-3eb9f8ac29cd
INFO : Session is already open
INFO : Dag name: select descricao, avg(total) from vendas...10 (Stage-1)
INFO : Status: Running (Executing on YARN cluster with App id application_1693619728122_0003)

+-----+-----+-----+-----+-----+-----+-----+-----+
| VERTICES | MODE | STATUS | TOTAL | COMPLETED | RUNNING | PENDING | FAILED | KILLED |
+-----+-----+-----+-----+-----+-----+-----+-----+
Map 1 ..... container | SUCCEEDED | 1 | 1 | 0 | 0 | 0 | 0 |
Reducer 2 ..... container | SUCCEEDED | 1 | 1 | 0 | 0 | 0 | 0 |
+-----+-----+-----+-----+-----+-----+-----+-----+
VERTICES: 02/02 [=====] 100% ELAPSED TIME: 10.39 s
+-----+-----+-----+-----+-----+-----+-----+-----+
INFO : Completed executing command(queryId=hive_20230902025514_d31736f1-c5a6-4363-a0d2-3eb9f8ac29cd); Time taken: 10.705 seconds
INFO : OK
INFO : Concurrency mode is disabled, not creating a lock manager
+-----+-----+-----+-----+-----+-----+-----+-----+
| descricao | c1 |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 TOMADA VERTICAL 2P+T 10A FINESSA (UN) | 15.0 |
| 2 PECAS CI SMO GSTEX GS2222 GS 92 A 2 GS92A2TQ QFN23 (UN) | 120.0 |
| 2 TOMADAS HORIZONTAIS 2P+T 10A FINESSA (UN) | 10.0 |
| 7 Em 1 ESCOVA LIMPEZA AIRFORDS/TECLADO/FONECOUVIDO/CELULAR (UNID) | 297.0 |
| ABRACADEIRA 1/2" BRANCA (UN) | 290.0 |
| ABRACADEIRA 3/4 POL BRANCA (UN) | 24.0 |
| ACABAMENTO ESPIRAL PARA CABO 1/2 PLIET. PRETO (UN) | 10.0 |
| ACCESS POINT UNIFI AC MESH PRO (UN) | 999.0 |
| AÇIONADOR DE EMERGENCIA REARMAVEL AS2010 (UN) | NULL |
| AÇIONADOR MANUAL CONVENCIONAL C/ SIRENE AMC422 (UN) | 216.0 |
+-----+-----+-----+-----+-----+-----+-----+-----+
10 rows selected (10.932 seconds)
0: jdbc:hive2://localhost:10000/default:
```

Abaixo nós fizemos uma junção de dados entre as tabelas Compras e Fornecedores. Pegamos o nome do fornecedor da tabela Compras e unimos com as informações de telefone, e-mail e cidade, da tabela Fornecedor.

```
0: jdbc:hive2://localhost:10000/default: select distinct c.fornecedor, f.telefone, f.email, f.cidade from compras as c inner join fornecedores f on c.fornecedor = f.fornecedor limit 10;
INFO : Compiling command(queryId=hive_20230902021508_d5eb127d-4fdf-4290-a984-03f4e5f1d7e0): select distinct c.fornecedor, f.telefone, f.email, f.cidade from compras as c inner join fornecedores f on c.fornecedor = f.fornecedor li
mit 10
INFO : Concurrency mode is disabled, not creating a lock manager
INFO : Semantic Analysis Completed (retail = false)
INFO : Returning Hive schema: Schema(fieldSchemas:[FieldSchema(name=c.fornecedor, type:string, comment:null), FieldSchema(name=f.telefone, type:string, comment:null), FieldSchema(name=f.email, type:string, comment:null), FieldSch
ema(name=f.cidade, type:string, comment:null)], properties:null)
INFO : Completed compiling command(queryId=hive_20230902021508_d5eb127d-4fdf-4290-a984-03f4e5f1d7e0); Time taken: 0.331 seconds
INFO : Concurrency mode is disabled, not creating a lock manager
INFO : Executing command(queryId=hive_20230902021508_d5eb127d-4fdf-4290-a984-03f4e5f1d7e0): select distinct c.fornecedor, f.telefone, f.email, f.cidade from compras as c inner join fornecedores f on c.fornecedor = f.fornecedor li
mit 10
INFO : Query ID = hive_20230902021508_d5eb127d-4fdf-4290-a984-03f4e5f1d7e0
INFO : Total jobs = 1
INFO : Launching Job 1 out of 1
INFO : Starting task [Stage-1:MAPRED] in serial mode
INFO : Subscribed to counters: {} for queryId: hive_20230902021508_d5eb127d-4fdf-4290-a984-03f4e5f1d7e0
INFO : Session is already open
INFO : Dag name: select distinct c.fornecedor, f.telefon...10 (Stage-1)
INFO : Setting tee.task.scale.memory.reserve-fraction to 0.20000001592028596
INFO : Status: Running (Executing on YARN cluster with App id application_1693619728122_0004)

+-----+-----+-----+-----+-----+-----+-----+-----+
| VERTICES | MODE | STATUS | TOTAL | COMPLETED | RUNNING | PENDING | FAILED | KILLED |
+-----+-----+-----+-----+-----+-----+-----+-----+
Map 2 ..... container | SUCCEEDED | 1 | 1 | 0 | 0 | 0 | 0 |
Map 3 ..... container | SUCCEEDED | 1 | 1 | 0 | 0 | 0 | 0 |
Reducer 2 ..... container | SUCCEEDED | 1 | 1 | 0 | 0 | 0 | 0 |
+-----+-----+-----+-----+-----+-----+-----+-----+
VERTICES: 01/01 [=====] 100% ELAPSED TIME: 9.52 s
+-----+-----+-----+-----+-----+-----+-----+-----+
INFO : Completed executing command(queryId=hive_20230902021508_d5eb127d-4fdf-4290-a984-03f4e5f1d7e0); Time taken: 10.717 seconds
INFO : OK
INFO : Concurrency mode is disabled, not creating a lock manager
+-----+-----+-----+-----+-----+-----+-----+-----+
| c.fornecedor | f.telefone | f.email | f.cidade |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 2 M COMUNICACAO VISUAL LTDA | (19) 99450-3289 | | Porto Ferreira (SP) |
| 49.622.294 ANNA PAULA MARTINS | (17) 80778-5042 | | São José do Rio Preto (SP) |
| TV Conecta Lda | (43) 95128-2112 | | Caravelas (BA) |
| A LIL Distribuidora | (11) 94225-8649 | | Guarulhos (SP) |
| A.D. DIGITAL MERCANTIL E TECNOLOGIA LTDA | (11) 2892-4290 | | São Paulo (SP) |
| A.M.J. Hospitalar | (11) 95085-0782 | | São Paulo (SP) |
| A.P.S. MARALIM | (41) 95085-0782 | | Almirante Tamandare (PR) |
| BNC VEICULARES LTDA | (21) 97242-7093 | | São Carlos do Sul (SP) |
| ARMA COMERCIO DE ARTIGOS E EQUIPAMENTOS ELETRONICOS LTDA | (11) 98533-0790 | anabestriagarcia99@gmail.com | São Paulo (SP) |
| AGIS EQUIP. E SERV INFORMATICA LTDA | | | Serra (ES) |
+-----+-----+-----+-----+-----+-----+-----+-----+
10 rows selected (11.125 seconds)
0: jdbc:hive2://localhost:10000/default:
```