Командная строка

```
C:\Users\dvora>chcp 65001 && spark-shell -i D:\ETL_data_processing\Task_1\Task_1_in_home\s1_home.scala --conf "spark.driver.extraJavaOptions=-Dfile.encoding=utf-8"
Active code page: 65001
Using Spark's default log4j profile: org/apache/spark/log4j-defaults.properties
Setting default log level to "WARN".
To adjust logging level use sc.setLogLevel(newLevel). For SparkR, use setLogLevel(newLevel).
Spark context Web UI available at http://LAPTOP:4040
Spark context available as 'sc' (master = local[*], app id = local-1734387597781).
Spark session available as 'spark'.
ERROR StatusLogger Log4j2 could not find a logging implementation. Please add log4j-core to the classpath. Using SimpleLogger to log to the console...

 FIRST NORMAL FORM:

+-----------+-----+--------+---------+---------+---------+
|Employee_ID| Name|Job_Code|      Job|City_code|Home_city|
+-----------+-----+--------+---------+---------+---------+
|       E001|Alice|     J01|     Chef|     26.0|   Moscow|
|       E001|Alice|     J02|   Waiter|     26.0|   Moscow|
|       E002|  Bob|     J02|   Waiter|     56.0|     Perm|
|       E002|  Bob|     J03|Bartender|     56.0|     Perm|
|       E003|Alice|     J01|     Chef|     56.0|     Perm|
+-----------+-----+--------+---------+---------+---------+


 SECOND NORMAL FORM:

+-----------+-----+---------+
|Employee_ID| Name|Home_city|
+-----------+-----+---------+
|       E003|Alice|     Perm|
|       E002|  Bob|     Perm|
|       E001|Alice|   Moscow|
+-----------+-----+---------+

+---------+---------+
|Home_city|City_code|
+---------+---------+
|   Moscow|     26.0|
|     Perm|     56.0|
+---------+---------+

+-----------+--------+---------+
|Employee_ID|Job_Code|      Job|
+-----------+--------+---------+
|       E001|     J01|     Chef|
|       E002|     J03|Bartender|
|       E002|     J02|   Waiter|
|       E003|     J01|     Chef|
|       E001|     J02|   Waiter|
+-----------+--------+---------+
```

THIRD NORMAL FORM:

| Employee_ID | Name | Home_city |
|---|---|---|
| E003 | Alice | Perm |
| E002 | Bob | Perm |
| E001 | Alice | Moscow |

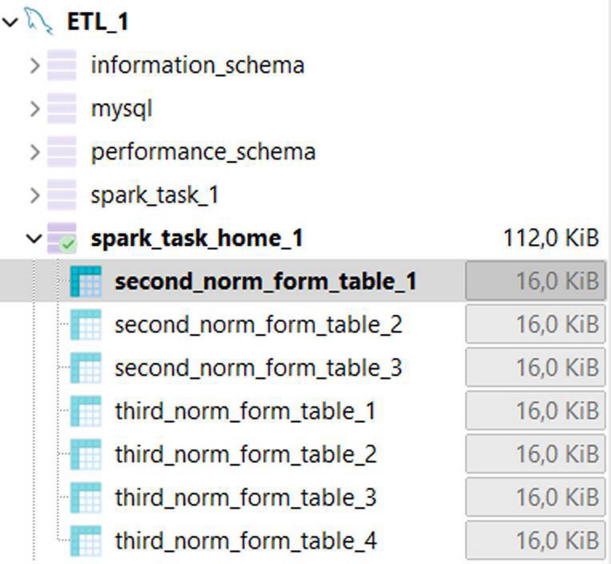
| Home_city | City_code |
|---|---|
| Moscow | 26.0 |
| Perm | 56.0 |

| Employee_ID | Job_Code |
|---|---|
| E003 | J01 |
| E001 | J01 |
| E001 | J02 |
| E002 | J02 |
| E002 | J03 |

| Job_Code | Job |
|---|---|
| J03 | Bartender |
| J02 | Waiter |
| J01 | Chef |

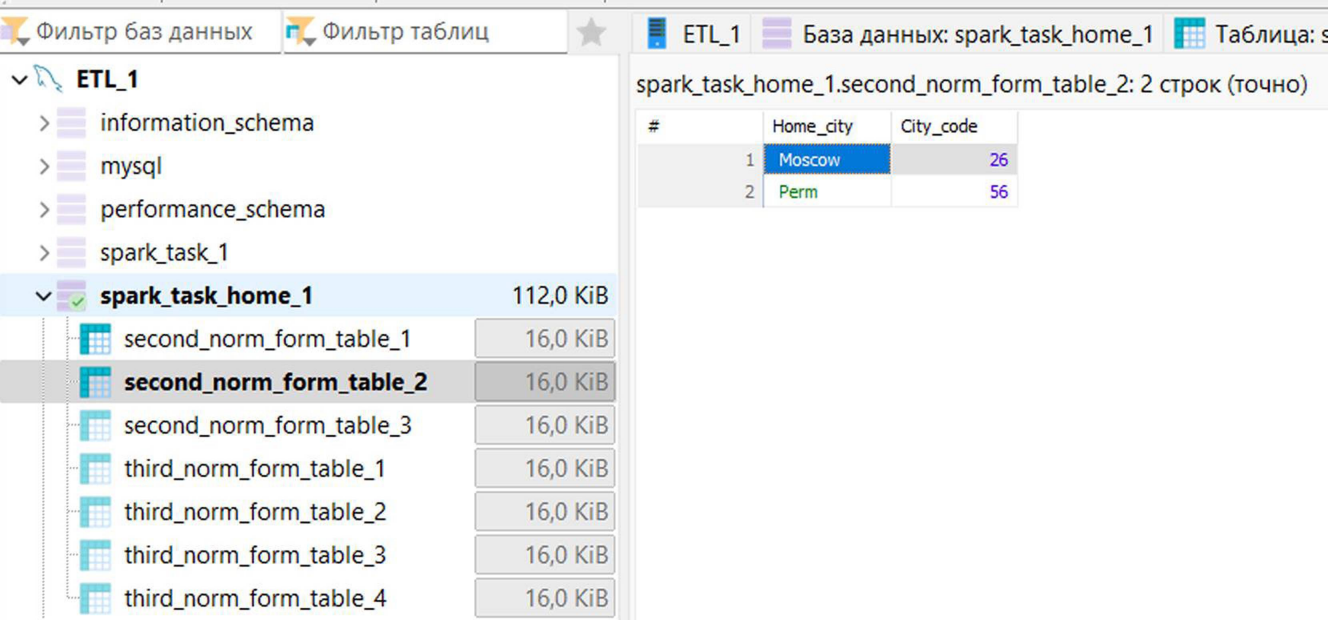
00:00:10

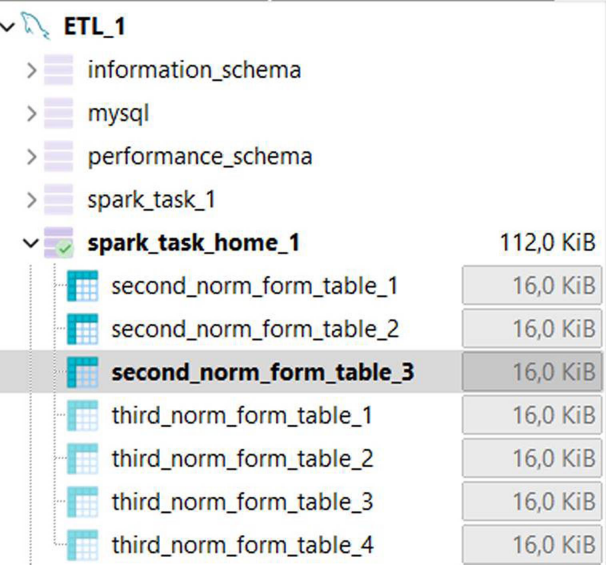
C:\Users\dvora>




spark_task_home_1.second_norm_form_table_1: 3 строк (точно)

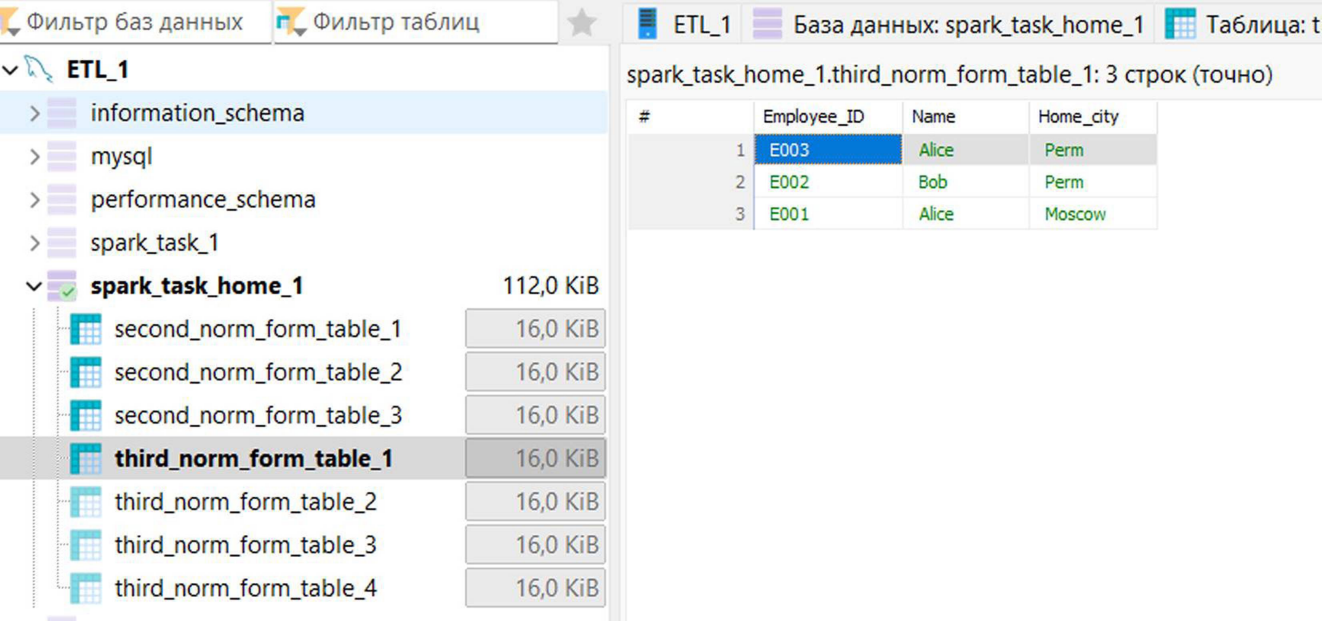
| # | Employee_ID | Name | Home_city |
|---|---|---|---|
| 1 | E003 | Alice | Perm |
| 2 | E002 | Bob | Perm |
| 3 | E001 | Alice | Moscow |

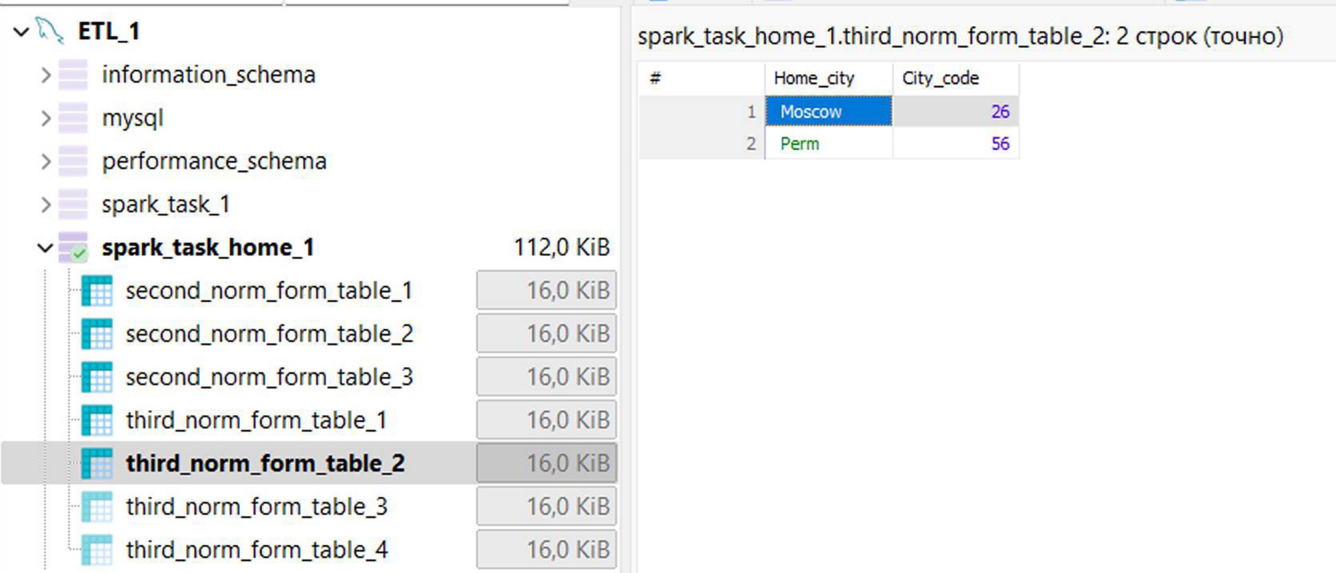

Фильтр баз данных
Фильтр таблиц
ETL_1
База данных: spark_task_home_1
Таблица: s
ETL_1
information_schema
mysql
performance_schema
spark_task_1
spark_task_home_1
112,0 KiB
second_norm_form_table_1
16,0 KiB
second_norm_form_table_2
16,0 KiB
second_norm_form_table_3
16,0 KiB
third_norm_form_table_1
16,0 KiB
third_norm_form_table_2
16,0 KiB
third_norm_form_table_3
16,0 KiB
third_norm_form_table_4
16,0 KiB
spark_task_home_1.second_norm_form_table_2: 2 строк (точно)
# Home_city City_code
1 Moscow 26
2 Perm 56

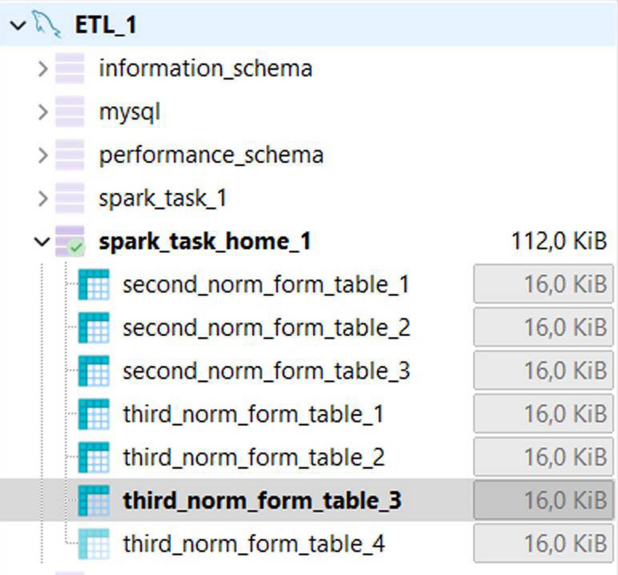



spark_task_home_1.second_norm_form_table_3: 5 строк (точно)

| # | Employee_ID | Job_Code | Job |
|---|---|---|---|
| 1 | E001 | J01 | Chef |
| 2 | E002 | J03 | Bartender |
| 3 | E002 | J02 | Waiter |
| 4 | E003 | J01 | Chef |
| 5 | E001 | J02 | Waiter |

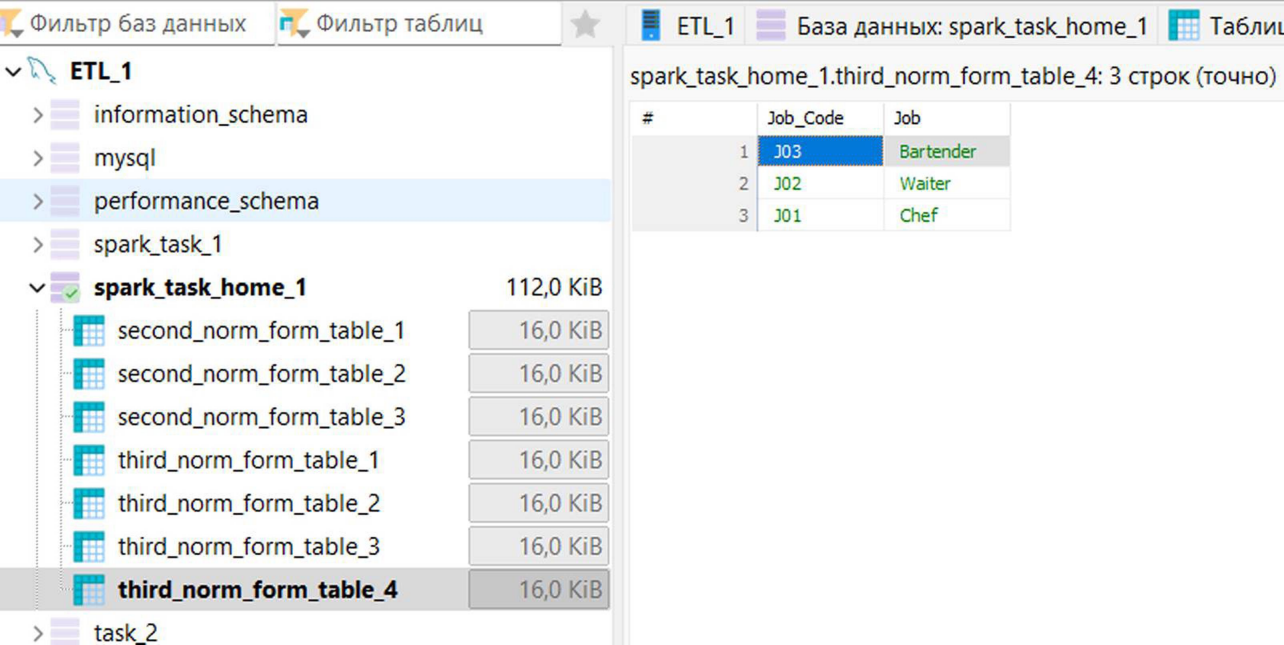

Фильтр баз данных
Фильтр таблиц
ETL_1
information_schema
mysql
performance_schema
spark_task_1
spark_task_home_1
112,0 KiB
second_norm_form_table_1
16,0 KiB
second_norm_form_table_2
16,0 KiB
second_norm_form_table_3
16,0 KiB
third_norm_form_table_1
16,0 KiB
third_norm_form_table_2
16,0 KiB
third_norm_form_table_3
16,0 KiB
third_norm_form_table_4
16,0 KiB
ETL_1
База данных: spark_task_home_1
Таблица: t
spark_task_home_1.third_norm_form_table_1: 3 строк (точно)
# Employee_ID Name Home_city
1 E003 Alice Perm
2 E002 Bob Perm
3 E001 Alice Moscow


ETL_1
information_schema
mysql
performance_schema
spark_task_1
spark_task_home_1
112,0 KiB
second_norm_form_table_1
16,0 KiB
second_norm_form_table_2
16,0 KiB
second_norm_form_table_3
16,0 KiB
third_norm_form_table_1
16,0 KiB
third_norm_form_table_2
16,0 KiB
third_norm_form_table_3
16,0 KiB
third_norm_form_table_4
16,0 KiB
spark_task_home_1.third_norm_form_table_2: 2 строк (точно)
# Home_city City_code
1 Moscow 26
2 Perm 56




spark_task_home_1.third_norm_form_table_3: 5 строк (точно)

| # | Employee_ID | Job_Code |
|---|---|---|
| 1 | E003 | J01 |
| 2 | E001 | J01 |
| 3 | E001 | J02 |
| 4 | E002 | J02 |
| 5 | E002 | J03 |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Фильтр таблиц
ETL_1
База данных: spark_task_home_1
Таблиц
ETL_1
information_schema
mysql
performance_schema
spark_task_1
spark_task_home_1
112,0 KiB
second_norm_form_table_1
16,0 KiB
second_norm_form_table_2
16,0 KiB
second_norm_form_table_3
16,0 KiB
third_norm_form_table_1
16,0 KiB
third_norm_form_table_2
16,0 KiB
third_norm_form_table_3
16,0 KiB
third_norm_form_table_4
16,0 KiB
task_2
spark_task_home_1.third_norm_form_table_4: 3 строк (точно)
# Job_Code Job
1 J03 Bartender
2 J02 Waiter
3 J01 Chef