Use different spark pool for different query

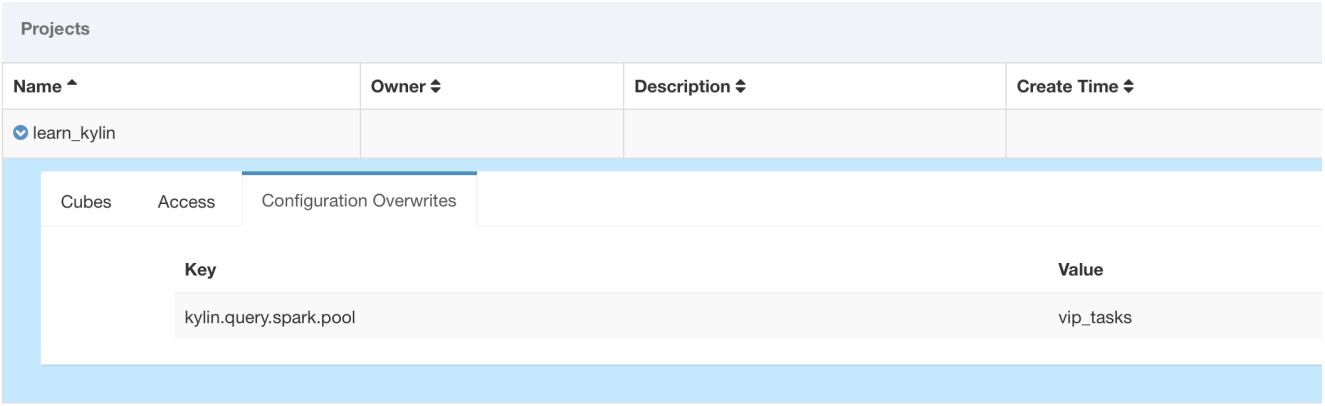
Kylin 4.0 use fair scheduler as spark scheduler mode in query module. The fair scheduler supports grouping jobs into pools, and setting different scheduling options (e.g. weight) for each pool.This can be useful to create a “high-priority” pool for more important jobs, for example, or to group the jobs of each user together and give *users* equal shares regardless of how many concurrent jobs they have instead of giving *jobs* equal shares. For more about spark fair scheduler, you can refer to https://spark.apache.org/docs/latest/job-scheduling.html.

In kylin4.0, user can config different spark pool in project level and sql level, and the configuration priority of SQL level is higher than that of project level. There are four spark pool in Kylin, which are 'query_pushdown', 'heavy_tasks', 'lightweight_tasks' and 'vip_tasks'.

If the user does not specify spark pool at both the SQL level and the project level, kylin will automatically adjust the spark pool used by SQL according to some rules.

Here are some examples of usage:

- **1Config spark pool at the project level**



Then all query in this project will use the 'vip_tasks' pool to execute:

```
==========================[QUERY]===============================
Query Id: b3e0bf51-e99f-cf50-e6cc-6d9ad84562f4
SQL: select count(*)
from kylin_sales
User: ADMIN
Success: true
Duration: 39.531
Project: learn_kylin
Realization Names: [CUBE[name=kylin_sales_cube]]
Cuboid Ids: [16384]
Total scan count: 31
Total scan bytes: 0
Result row count: 1
Accept Partial: true
Is Partial Result: false
Hit Exception Cache: false
Storage cache used: false
Is Query Push-Down: false
Is Prepare: false
Used Spark pool: vip_tasks
Trace URL: null
Message: null
==========================[QUERY]===============================
```

- **2Override spark pool at SQL level**

POST http://host:port/kylin/api/query/

Params Authorization Headers (12) Body Pre-request Script Tests Settings

none form-data x-www-form-urlencoded raw binary GraphQL JSON

```
{
"sql":"select count(*) from kylin_sales ",
"project":"learn_kylin",
"backdoorToggles":{
    "DEBUG_TOGGLE_SPARK_POOL":"heavy_tasks"
}
}
```

Then this sql will use the 'heavy_tasks' pool to execute

```
==========================[QUERY]===============================
Query Id: da381988-4db0-0523-97b2-bb3824488d9c
SQL: select count(*) from kylin_sales
User: ADMIN
Success: true
Duration: 2.529
Project: learn_kylin
Realization Names: [CUBE[name=kylin_sales_cube]]
Cuboid Ids: [16384]
Total scan count: 31
Total scan bytes: 0
Result row count: 1
Accept Partial: false
Is Partial Result: false
Hit Exception Cache: false
Storage cache used: false
Is Query Push-Down: false
Is Prepare: false
Used Spark pool: heavy_tasks
Trace URL: null
Message: null
==========================[QUERY]===============================
```

- **3SQL pushed down to spark will use 'query_pushdown' pool to execute**

Completed Stages (2)

Stage Id	Pool Name	Description	Submitted	Duration	Tasks: Succeeded/Total	Input	Output	Shuffle Read	Shuffle Write
1	query_pushdown	Push down: select * from kylin_sales limit 1 collect at SparkSqlClient.scala:87 +details	2020/08/26 10:42:16	0.2 s	1/1			302.0 B	
0	query_pushdown	Push down: select * from kylin_sales limit 1 collect at SparkSqlClient.scala:87 +details	2020/08/26 10:42:14	2 s	2/2	127.8 KB			302.0 B

- **4Without any configuration, the SQL will be allocated to 'lightweight_tasks'**

```
==========================[QUERY]===============================
Query Id: 3dd357a3-108e-200a-7cfa-981f2569953d
SQL: select count(*)
from kylin_sales
User: ADMIN
Success: true
Duration: 0.361
Project: learn_kylin
Realization Names: [CUBE[name=kylin_sales_cube]]
Cuboid Ids: [16384]
Total scan count: 31
Total scan bytes: 0
Result row count: 1
Accept Partial: true
Is Partial Result: false
Hit Exception Cache: false
Storage cache used: false
Is Query Push-Down: false
Is Prepare: false
Used Spark pool: lightweight_tasks
Trace URL: null
Message: null
==========================[QUERY]===============================
```