Kylin Web Tutorial
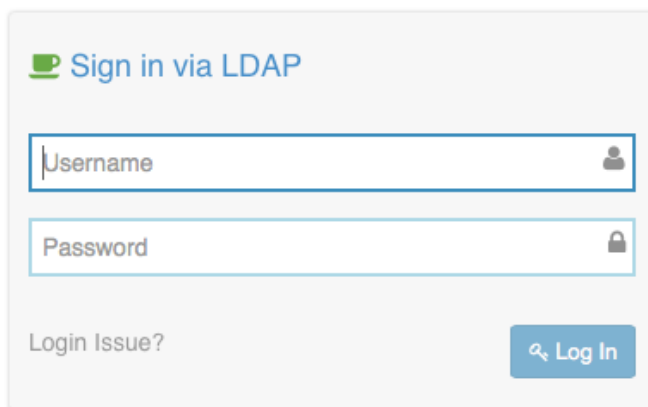
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Supported Browsers
Windows: Google Chrome, FireFox
Mac: Google Chrome, FireFox, Safari

1. Access & Login

Host to access: http://your_sandbox_ip:9080 Login with username/password: ADMIN/KYLIN

2. Available Hive Tables in Kylin

Although Kylin will using SQL as query interface and leverage Hive metadata, kylin will not enable user to query all hive tables since it's a pre-build OLAP (MOLAP) system so far. To enable Table in Kylin, it will be easy to using "Sync" function to sync up tables from Hive.

3. Kylin OLAP Cube

Kylin's OLAP Cubes are pre-calculation datasets from Star Schema Hive tables, Here's the web management interface for user to explorer, manage all cubes.Go to `Cubes` Menu, it will list all cubes available in system:

To explore more detail about the Cube

- Form View:

Cubes								
Name ⇕	Status ⇕	Cube Size ⇕	Source Records ⇕	Last Build Time ⇕	Owner ⇕	Create Time ⌄	Actions	Admins
⊙ test_kylin_cube_without_slr_empty		0.00 KB	0	1970-01-01 08:00:00			Action ▾	Action ▾
⊙ test_kylin_cube_with_slr_empty	READY	6.52 MB	10,000	2014-11-11 13:59:15			Action ▾	Action ▾

Grid   Visualization   SQL   JSON   Access   Notification   HBase

Cube Designer

①——②——③——④——⑤——⑥——⑦——⑧
Cube Info Dimensions Measures Filter Refresh Setting Rowkeys Aggreation Groups Overview

Project	onlyinner
Cube Name	test_kylin_cube_with_slr_desc
Notification List	
Description	

Tips

1. Cube must belong to project which you have privilege to create
2. Cube name is unique name of entire system

Note: inputs with light blue border are mandatory.

← Back to My Cubes

Next →

- SQL View (Underline Hive Query to generate the cube):

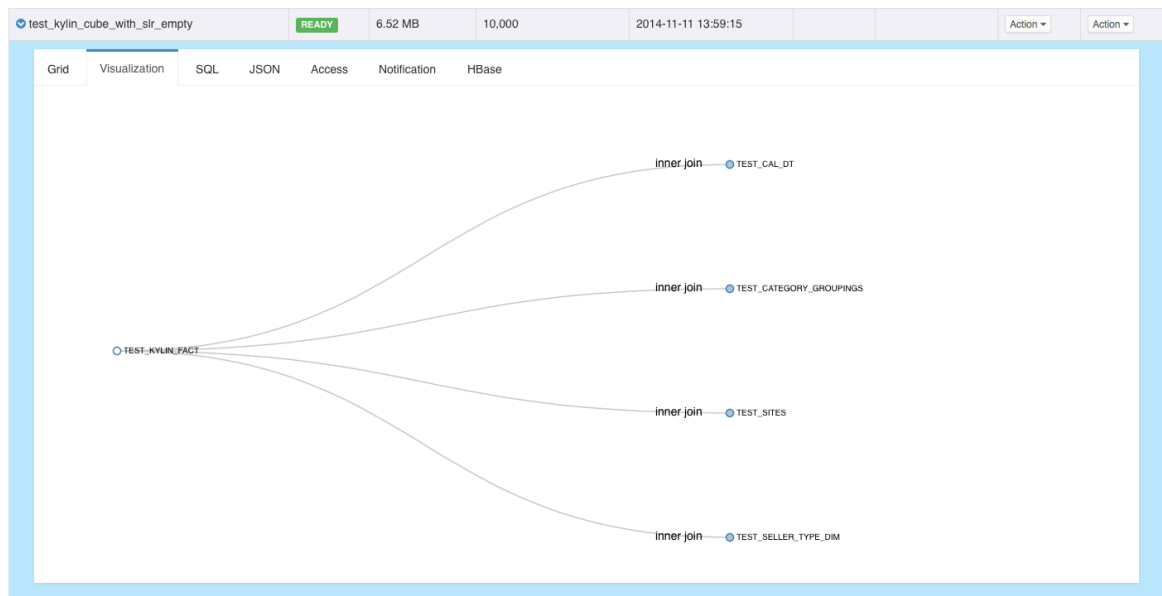| Cubes								
Name ⇕	Status ⇕	Cube Size ⇕	Source Records ⇕	Last Build Time ⇕	Owner ⇕	Create Time ⌄	Actions	Admins
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Grid   Visualization   SQL   JSON   Access   Notification   HBase

```
SELECT
TEST_KYLIN_FACT.CAL_DT
,TEST_KYLIN_FACT.LEAF_CATEG_ID
,TEST_KYLIN_FACT.LSTG_SITE_ID
,TEST_CATEGORY_GROUPINGS.META_CATEG_NAME
,TEST_CATEGORY_GROUPINGS.CATEG_LVL2_NAME
,TEST_CATEGORY_GROUPINGS.CATEG_LVL3_NAME
,TEST_KYLIN_FACT.LSTG_FORMAT_NAME
,TEST_KYLIN_FACT.SLR_SEGMENT_CD
,TEST_KYLIN_FACT.SELLER_ID
,TEST_KYLIN_FACT.PRICE
FROM TEST_KYLIN_FACT
INNER JOIN TEST_CAL_DT
ON TEST_KYLIN_FACT.CAL_DT = TEST_CAL_DT.CAL_DT
INNER JOIN TEST_CATEGORY_GROUPINGS
ON TEST_KYLIN_FACT.LEAF_CATEG_ID = TEST_CATEGORY_GROUPINGS.LEAF_CATEG_ID AND TEST_KYLIN_FACT.LSTG_SITE_ID = TEST_CATEGORY_GROUPINGS.SITE_ID
INNER JOIN TEST_SITES
ON TEST_KYLIN_FACT.LSTG_SITE_ID = TEST_SITES.SITE_ID
INNER JOIN TEST_SELLER_TYPE_DIM
```

- Visualization (Showing the Star Schema behind of this cube):

⊘ test_kylin_cube_with_slr_empty		READY	6.52 MB	10,000	2014-11-11 13:59:15				Action ▾	Action ▾

Grid | Visualization | SQL | JSON | Access | Notification | HBase

- Access (Grant user/role privileges, Grant operation only open to Admin in beta):

Cubes

Name ⇕	Status ⇕	Cube Size ⇕	Source Records ⇕	Last Build Time ⇕	Owner ⇕	Create Time ▾	Actions	Admins
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Grid | Visualization | SQL | JSON | Access | Notification | HBase

+ Grant ❓

Name	Type	Access	Update	Revoke
ADMIN	User	CUBE ADMIN	-- select access -- ⬍ Update	Revoke

4. Write and Execute SQL on web

Kylin's web offer a simple query tool for user to run SQL to explorer existing cube, verify result and explorer the result set using #5's Pivot analysis and visualization

"

Query Limit

1. *Only SELECT query be supported*
2. *To avoid huge network traffic from server to client, the underline scan range's threshold be set to 1,000,000 in beta.*
3. *SQL can't found data from cube will not redirect to Hive in beta*

Go to "Query" menu:

- Source Tables:

  Browser current available Tables (same structure and metadata as Hive):

- New Query:

  You can write and execute your query and explorer the result. One query for you experience:

- Saved Query:

    Associate with user account, you can get saved query from different browsers even machines. Click "Save" in Result area, it will popup for name and description to save current query:

    Click "Saved Queries" to browser all your saved queries, you could direct resubmit it to run or remove it:

- Query History:

  Only keep the current user's query history in current bowser, it will require cookie enabled and will lost if you clean up bowser's cache.Click "Query History" tab, you could directly resubmit any of them to execute again.

5. Pivot Analysis and Visualization

There's one simple pivot and visualization analysis tool in Kylin's web for user to explorer their query result:

- General Information:

  When the query execute success, it will present a success indictor and also a cube's name which be hit. Also it will present how long this query be executed in backend engine (not cover network traffic from Kylin server to browser):

- Query Result:

  It's easy to order on one column.

- Export to CSV File

  Click "Export" button to save current result as CSV file.

- Pivot Table:

  Drag and Drop one or more columns into the header, the result will grouping by such column's value:

- Visualization:

  Also, the result set will be easy to show with different charts in "Visualization":

  note: line chart only available when there's at least one dimension with real "Date" data type of column from Hive Table.

  - Bar Chart:

Results

1 ✓ | ✕ | |

Status: All

Query String ⌄

Start Time: 2014-11-12 17:33:48   Duration: 3.10s   ↻ Rerun   💾 Save

Status: Success   **Project:** onlyinner   **Cubes:** test_kylin_cube_with_slr_empty

Results (1215)

≡ Grid   ☁ Export   ⤢

Graph Type

Bar Chart

Dimensions

LSTG_FORMAT… ▾

Metrics

PRICE ▾

● ABIN ● Auction ● FP-GTC ● FP-non GTC ● Others

⌂ Home Page | 👥 Google Group

- ○ Pie Chart:

Results

1 ✓ | ✕ | |

Status: All

Query String ⌄

Start Time: 2014-11-12 17:33:48   Duration: 3.10s   ↻ Rerun   💾 Save

Status: Success   **Project:** onlyinner   **Cubes:** test_kylin_cube_with_slr_empty

Results (1215)

≡ Grid   ☁ Export   ⤢

Graph Type

Pie Chart

Dimensions

LSTG_FORMAT… ▾

Metrics

PRICE ▾

● ABIN ● Auction ● FP-GTC ● FP-non GTC ● Others

⌂ Home Page | 👥 Google Group

- ○ Line Chart

Results

1 ✓ ✗ |

Status: All

Query String ⌄   Start Time: 2014-11-12 17:33:48   Duration: 3.10s   ⟳ Rerun   🖫 Save

Status: Success   Project: onlyinner   Cubes: test_kylin_cube_with_slr_empty

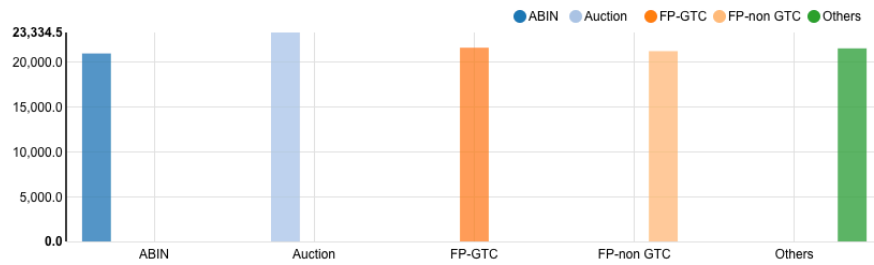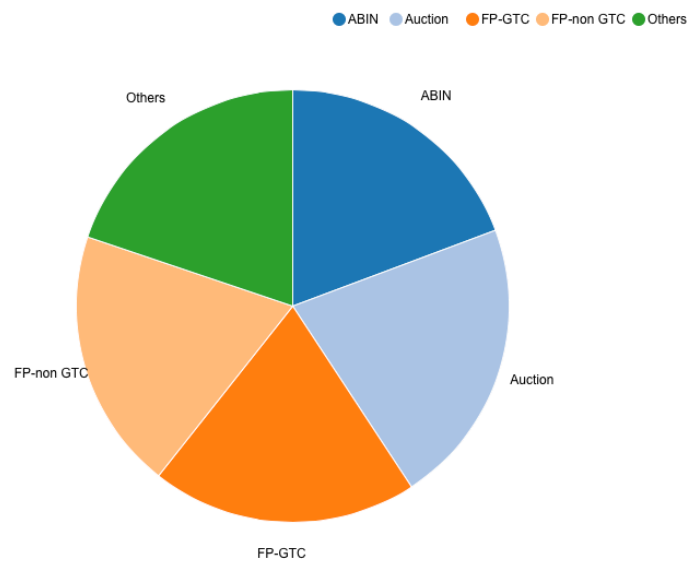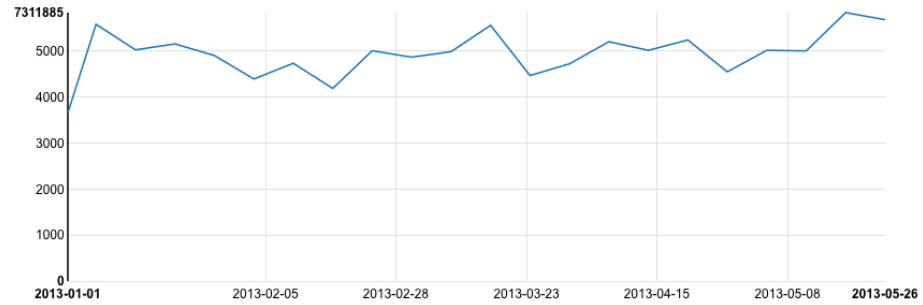Results (1215)   ☰ Grid   ☁ Export   ⤢

Graph Type

Line Chart

Dimensions

WEEK_BEG_DT ▾

Metrics

PRICE ▾

6. Cube Build Job Monitoring

Monitor and manage cube build process, diagnostic into the detail and even link to Hadoop's job information directly: