Cloudera Streaming Analytics 1.5.0

Monitoring SQL jobs

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Monitoring SQL Stream jobs

You can use the Streaming SQL Console to review the status, properties and log of your SQL Stream jobs executed in SQL Stream Builder. Using the Flink Dashboard, you can also monitor the Flink job that is submitted when you execute a SQL query.

Using the Streaming SQL Console

When using the **SQL Jobs** page in Streaming SQL Console to monitor your SQL jobs, you can review the ID, the Name, the Start time, the State of the submitted jobs, and the User who submitted the SQL jobs. When monitoring running jobs, you are also able to open the Flink Dashboard, and stop the job using the Stop button under Actions. The Flink Dashboard link and Stop button are not available for Stopped Jobs.

- 1. Click Console on the main menu.
- 2. Select SQL Jobs tab.

By default, Running Jobs are displayed on the SQL Jobs page.

ompose	Tables	Functions	History	SQL Job	S								
									Search by nar	ne		Running Jobs	
ID	↓†	Name		Ϋ́	User	J↑	Start Time	J† Lin	k	State	11	Actions	
5209		loving_wright			admin		2021-09-28 17:54:51 (minutes ago)	30 Flir	k Dashboard	RUNNING			Stop
												Previous 1	Nex
Details	Log												
							No Job Sel	ected	1				
						Clic	k on a Job and its detai	s will dis	play here				

- 3. Select Running Jobs or Stopped Jobs from the drop-down menu.
- 4. Click on the job you want to monitor.

a. You can further filter down the results, by directly searching for the job name in the Search field.

5. Select Details tab on the bottom panel to display additional details and configurations about the SQL job.

Details Log					
✓ Edit Selected Job					
Property	Value				
Job Name	nostalgic_varahamihira				
Sources	transactions				
Sinks	No sinks defined				
SQL	select * from transactions				
Parallelism	1 thread(s)				
Restart Strategy	never				
Restart Retry Delay	30				
Sample Behavior	Sample one message every second				

6. Select Log tab on the bottom panel to review the log information of the job submission.

	Details	Log	
	[14/07/	2021,	18:47:45][INFO] INFO - 2021-07-14 16:42:08.274652 : Job metadata saved
	[14/07/	2021,	18:47:45][INFO] INFO - 2021-07-14 16:42:08.284747 : SSB version 1626276514638921589 selected for job.
	[14/07/	2021,	18:47:45][INFO] INFO - 2021-07-14 16:42:10.680009 : Successful job deployment to: http://docs-test-3.docs-test.root.hwx.site:45643
	[14/07/	2021,	18:47:45][INFO] INFO - 2021-07-14 16:42:10.705042 : Free slots remaining: 0
	[14/07/	2021,	18:47:45][INFO] INFO - 2021-07-14 16:42:10.719030 : Generated Flink ID: f11906519f6932472e6bb9b9f31219a5

History of SQL queries

You can review and reuse the SQL queries that were previosuly executed on the **History** page. When you click on one of the SQL queries, it is automatically imported to the SQL window for execution. You can filter the SQL queries by the time they were last run or by the user who run them. You can also search for a type of SQL query using the Search field.

Cor Run S	ISOLE SQL against	t unboun	ded streams	of data and	create persistent SQL streaming jobs			
Con	mpose 1	Tables	Functions	History	SQL Jobs			
								Search:
so	QL				.↓† I	Last Run ↓	User	Ļţ
se	elect column	_int from o	datagen_sampl	e	2	2021/07/14 17:23:48 (3 minutes ago)	admin	
se	elect * from d	latagen_sa	ample		2	2021/07/14 17:17:16 (10 minutes ago)	admin	

Using the Flink Dashboard

You can also monitor your running SQL jobs using the Flink Dashboard. You can easily reach the Flink Dashboard on the SQL jobs tab below the Console main menu. After clicking on the Flink Dashboard, you are redirected to the Flink Dashboard interface.

Co	mpose	Tables	Functions His	story SQL Jobs					
	ID	.↓†	Name		.↓† User	↓↑ Start Time	.↓† Link	State	↓↑ Actions
	5443		silly_curran		admin	3 days ago	Flink Dashboard	RUNNING	Stop
	5445	1	thirsty_franklin		admin	3 days ago	Flink Dashboard	RUNNING	Stop

Enabling Flink DEBUG logging for SQL Stream Builder

You can review the log text files of the Flink jobs behind SQL Stream Builder (SSB) when an error is detected during the processes. When you set the log level of Flink to DEBUG, you can easily trace the log file for errors.

About this task

A log file is created about every Flink process that contains messages for the different events happening in the given process. You can use these log files to solve the errors and problems that can occur during SSB and Flink processes. You can access the Flink logs using the Flink Dashboard.

Procedure

- 1. Go to your cluster in Cloudera Manager.
- **2.** Select Flink from the list of Services.
- 3. Select Configuration.

- **4.** Search for Flink Client Advanced Configuration Snippet (Safety Valve) for flink-conf/log4j.properties configuration.
- **5.** Add the following parameters to the Safety Valve:

```
logger.flink.name = org.apache.flink
logger.flink.level = DEBUG (or TRACE)
```

- **6.** Click Save Changes.
- 7. Restart the Flink service.
- 8. Restart the SQL Stream Builder service.
- 9. Navigate to the YARN Resource Manager to stop the SQL Stream Builder YARN job.
 - a) Select YARN from the list of Services.
 - b) Select YARN.
 - c) Select Applications.
 - The running SSB application is displayed.
- **10.** Click the settings represented by three dots.
- **11.** Select the stop option.
- 12. Navigate to Streaming SQL Console and run any job.
 - a) Select Clusters > SQLStreamBuilder.
 - b) Click SQLStreamBuilder Console.
 - You are redirected to the Streaming SQL Console.
 - c) Execute a SQL query in the SQL window.
- 13. Navigate to Flink Dashboard and review the log level for the running job.
 - a) Select SQL jobs on the main tabs of Streaming SQL Console.
 - b) Select Running jobs.
 - c) Search for the previously submitted job.
 - d) Click Flink Dashboard.

You are redirected to the Flink Dashboard page.

- 14. Select Task Managers from the main menu.
- 15. Select the previously submitted job.

16. Click Logs.