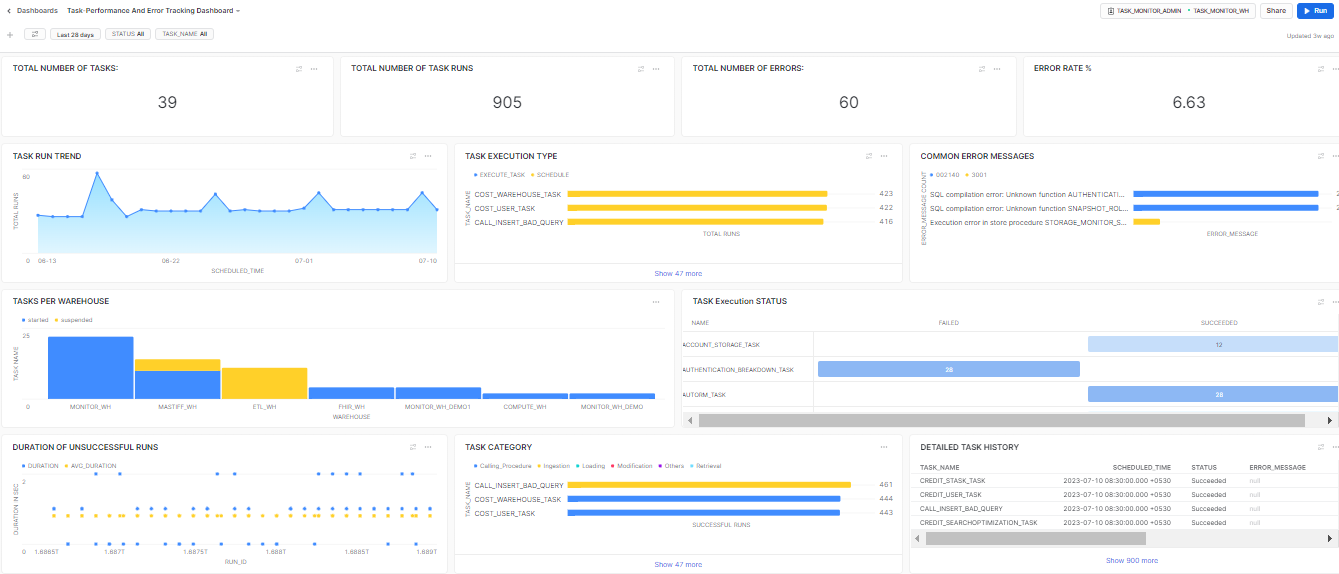
**PERFORMANCE AND ERROR TRACKING DASHBOARD**

Monitoring snowflake Task performance through Snowsight dashboards provides valuable insights into the efficiency and effectiveness of your data transformation processes.Tracking snowflake errors through Snowsight dashboards allows you to identify and resolve issues in your data transformation workflows effectively. This enables you to track trends, compare performance across different time periods or tasks, and identify areas for improvement.



**FILTERS:**

* **DATERANGE(Default Filter)**
* **TASK\_NAME(Custom Filter):**

Display Name :- TASK\_NAME

SQL Keyword :- TASK\_NAME

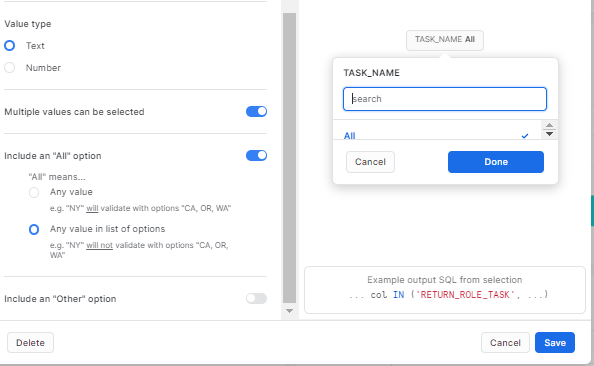
Role :- ACCOUNTADMIN

Warehouse :- TASK\_MONITOR\_WH

Options Via :- Query

Write Query :- select distinct name from snowflake.account\_usage.task\_history;

Go for the below selections :



* **STATUS(Custom Filter):**

Display Name :- STATUS

SQL Keyword :- STATUS

Role :- ACCOUNTADMIN

Warehouse :- TASK\_MONITOR\_WH

Options Via :- List:

SUCCEEDED

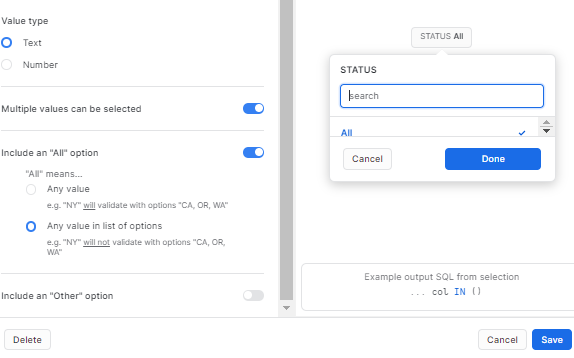
FAILED\_AND\_AUTO\_SUSPENDED

FAILED

CANCELLED

SKIPPED

Go for the below selections :

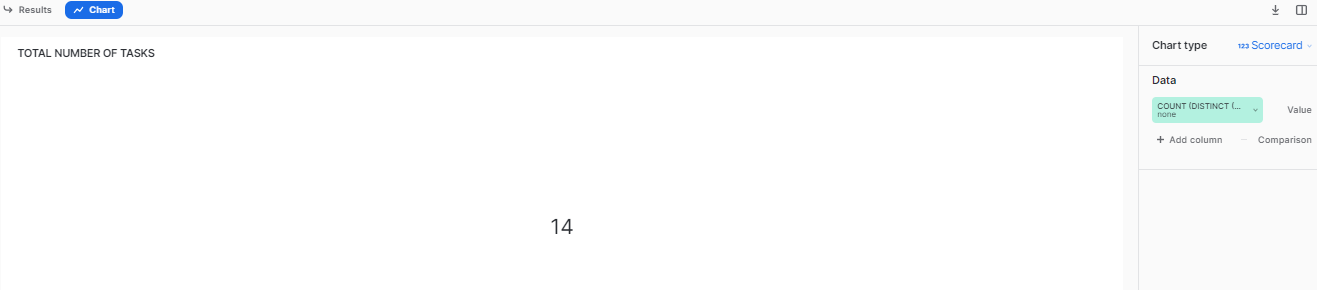


**1.1 TOTAL NUMBER OF TASKS:**

select count (DISTINCT (Name)) from snowflake.account\_usage.task\_history

WHERE

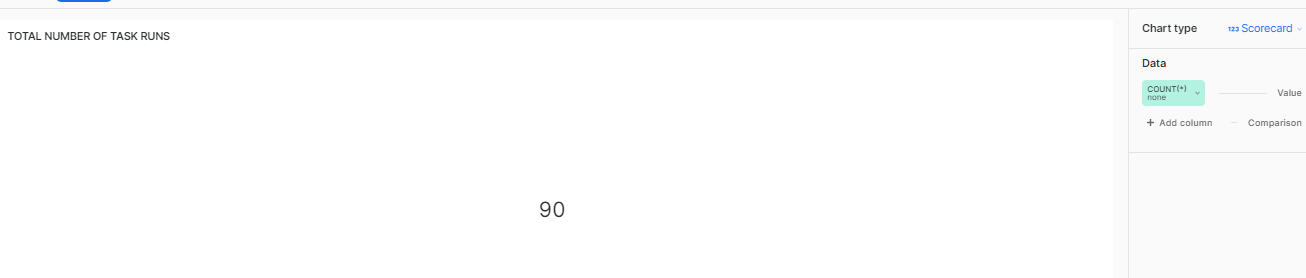
SCHEDULED\_TIME =:daterange;



**1.2 TOTAL NUMBER OF TASK RUNS:**

SELECT count(\*) FROM SNOWFLAKE.ACCOUNT\_USAGE.TASK\_HISTORY

WHERE SCHEDULED\_TIME =:daterange;



**1.3 TOTAL NUMBER OF ERRORS:**

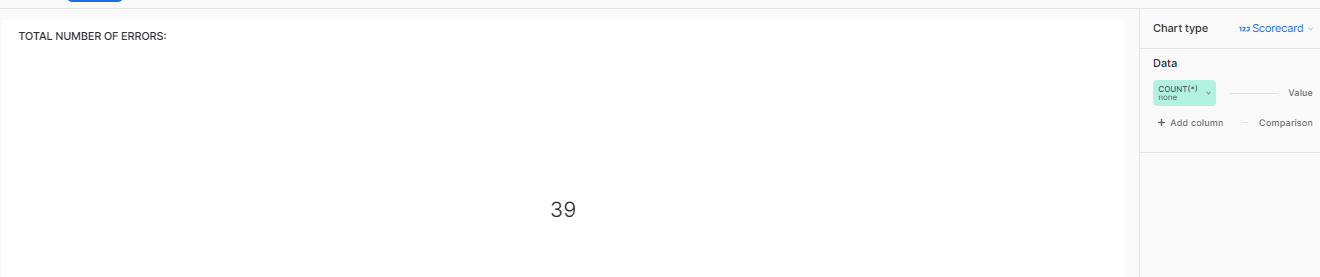
SELECT count(\*) FROM

snowflake.account\_usage.task\_history

WHERE

INITCAP(STATE) IN ('Failed', 'Cancelled', 'Skipped','Failed\_And\_Auto\_Suspended')

AND SCHEDULED\_TIME = :daterange ;



**1.4 ERROR RATE %:**

select round(100\*((SELECT count(\*) FROM

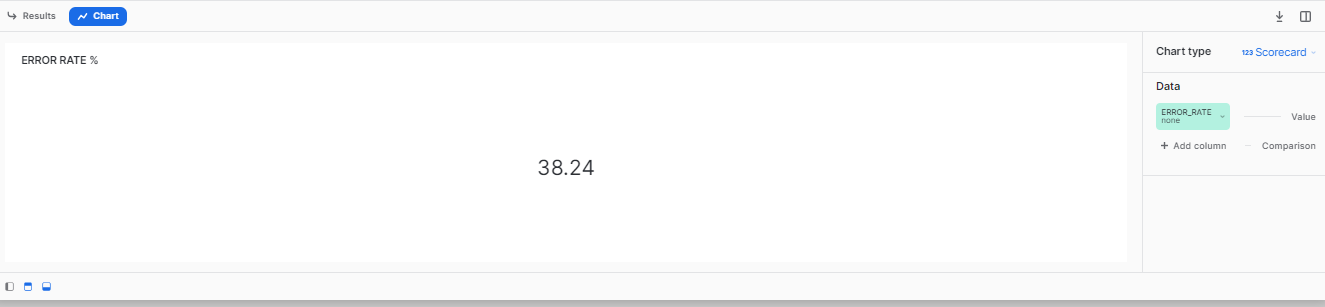
snowflake.account\_usage.task\_history

WHERE

INITCAP(STATE) IN ('Failed', 'Cancelled', 'Skipped','Failed\_And\_Auto\_Suspended')

AND SCHEDULED\_TIME = :daterange)/(SELECT count(\*) FROM SNOWFLAKE.ACCOUNT\_USAGE.TASK\_HISTORY

WHERE SCHEDULED\_TIME =:daterange)),2) AS ERROR\_RATE;



**1.5 TASK RUN TREND:**

SELECT

NAME as TASK\_NAME,

date\_trunc(

'second',

CONVERT\_TIMEZONE('Asia/Calcutta', SCHEDULED\_TIME)

) as SCHEDULED\_TIME,

TIMESTAMPDIFF(SECOND, QUERY\_START\_TIME, COMPLETED\_TIME) as DURATION,

INITCAP(STATE) as STATUS,

SCHEMA\_NAME,

DATABASE\_NAME

FROM

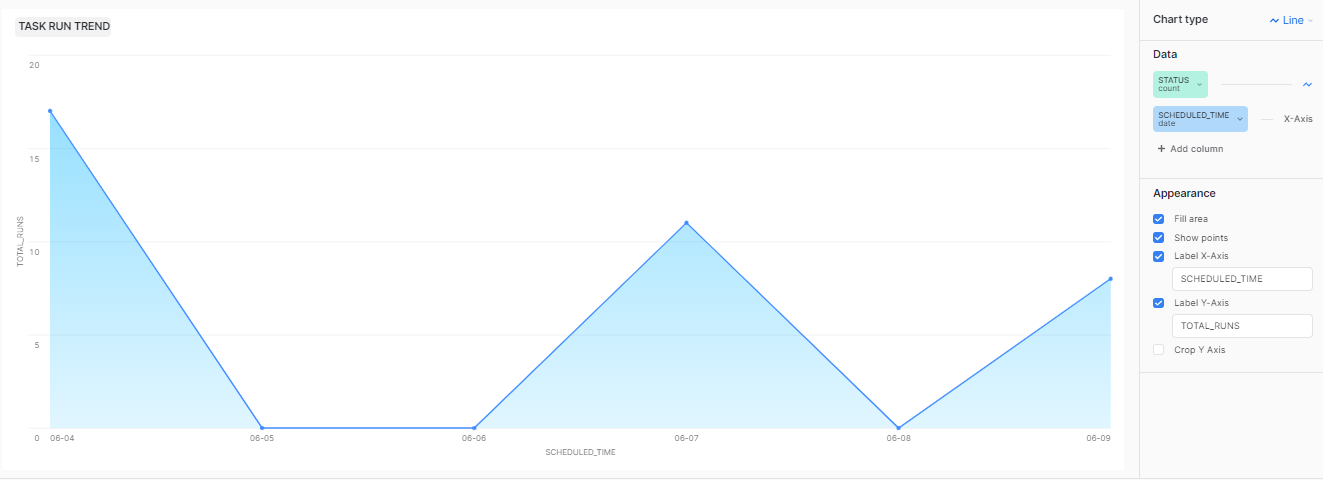
snowflake.account\_usage.task\_history

WHERE

SCHEDULED\_TIME =:daterange

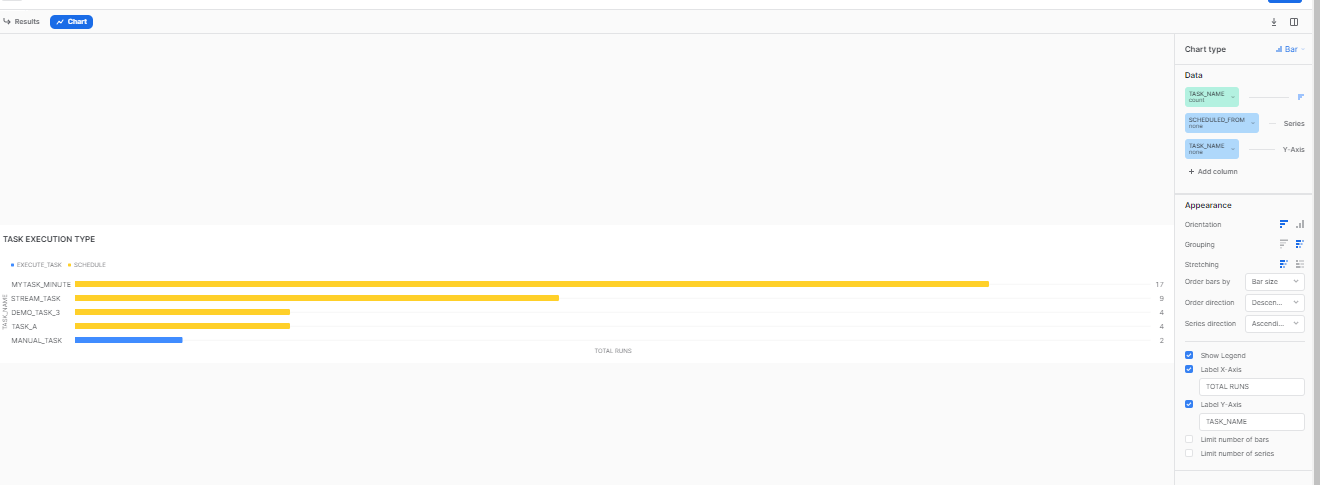
AND STATE=:STATUS

AND NAME=:TASK\_NAME;



**1.6 TASK EXECUTION TYPE:**

SELECT NAME AS TASK\_NAME,SCHEDULED\_FROM FROM SNOWFLAKE.ACCOUNT\_USAGE.TASK\_HISTORY WHERE TASK\_NAME=:TASK\_NAME;



**1.7 COMMON ERROR MESSAGES:**

SELECT

NAME as TASK\_NAME,

date\_trunc(

'second',

CONVERT\_TIMEZONE('Asia/Calcutta', SCHEDULED\_TIME)

) as SCHEDULED\_TIME,

INITCAP(STATE) as STATUS,

date\_trunc(

'second',

CONVERT\_TIMEZONE('Asia/Calcutta', QUERY\_START\_TIME)

) as START\_TIME,

date\_trunc(

'second',

CONVERT\_TIMEZONE('Asia/Calcutta', COMPLETED\_TIME)

) as END\_TIME,

TIMESTAMPDIFF('millisecond', QUERY\_START\_TIME, COMPLETED\_TIME) as DURATION,

SCHEMA\_NAME,

DATABASE\_NAME,

ERROR\_CODE,

ERROR\_MESSAGE,

QUERY\_ID

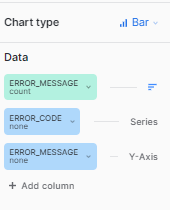
FROM

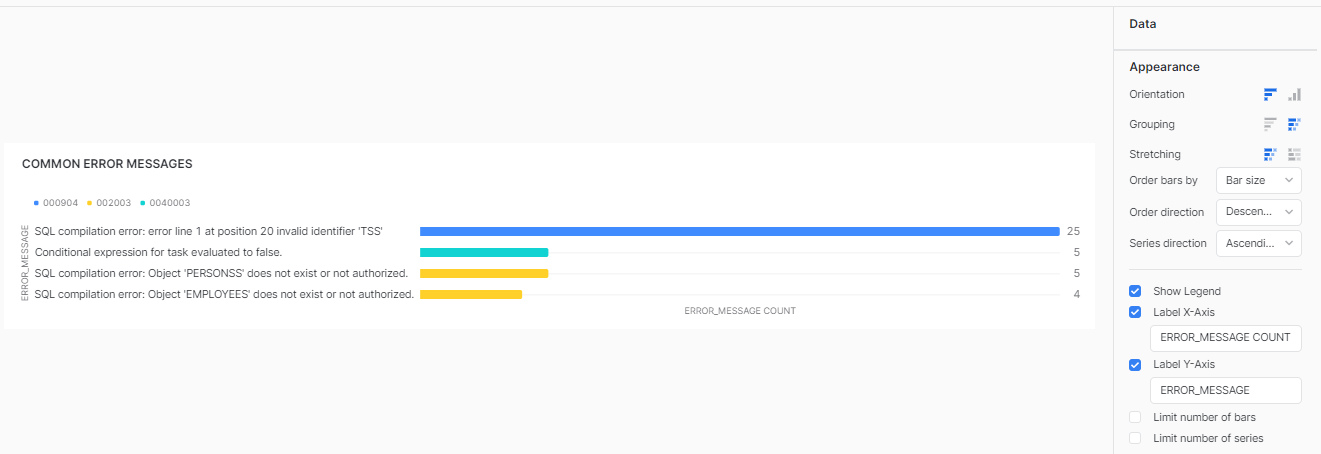
snowflake.account\_usage.task\_history

WHERE

INITCAP(STATE) IN ('Failed', 'Cancelled', 'Skipped','Failed\_And\_Auto\_Suspended')

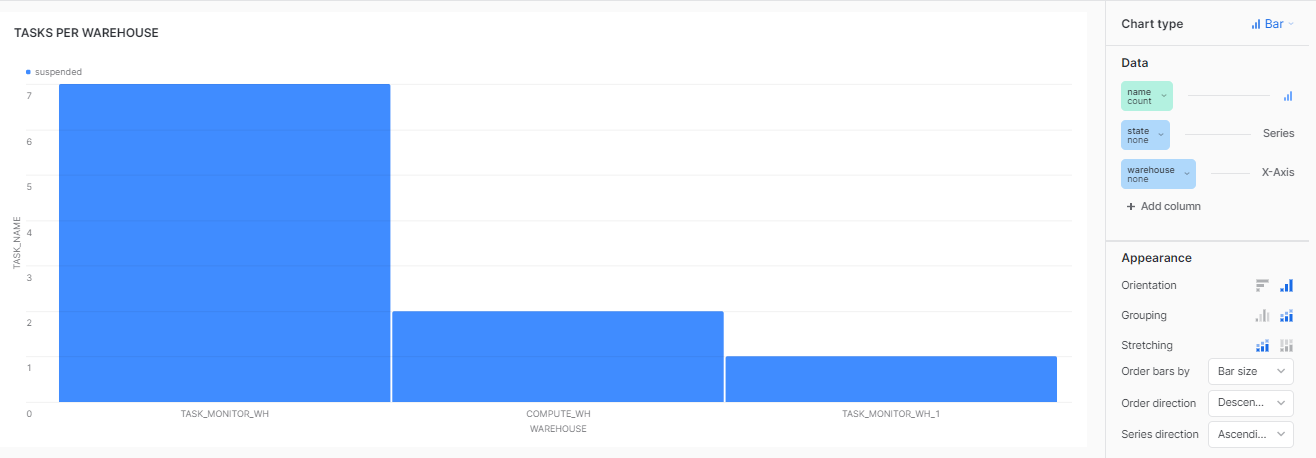
AND SCHEDULED\_TIME = :daterange;

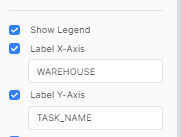




**1.8 TASKS PER WAREHOUSE:**

SHOW TASKS;





**1.9 TASK Execution STATUS:**

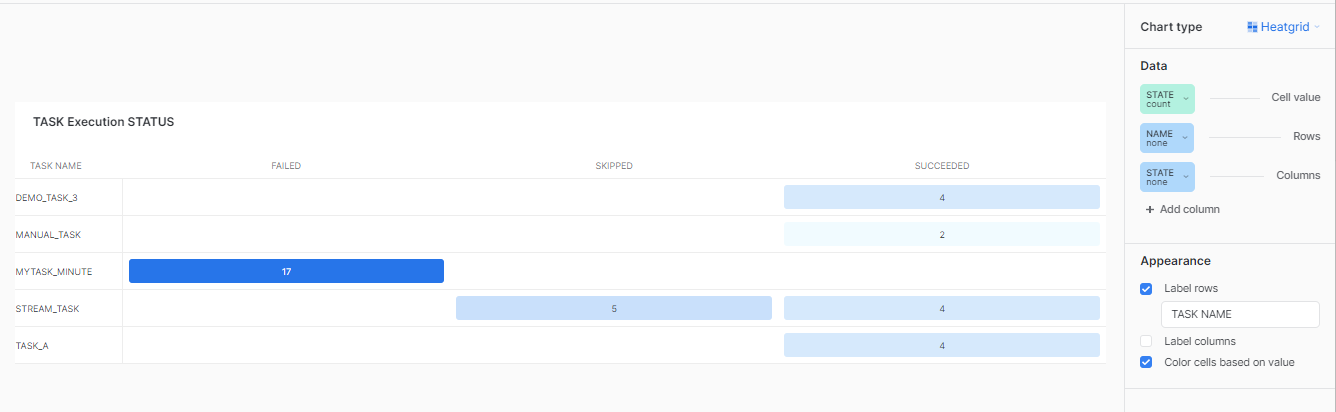
select STATE, NAME,date\_trunc('second',

CONVERT\_TIMEZONE('Asia/Calcutta', SCHEDULED\_TIME)

) as SCHEDULED\_TIME,TIMESTAMPDIFF('millisecond', QUERY\_START\_TIME, COMPLETED\_TIME) as DURATION,

ERROR\_MESSAGE from snowflake.account\_usage.task\_history

WHERE SCHEDULED\_TIME = :daterange AND NAME = :TASK\_NAME;



**1.10 DURATION OF UNSUCCESSFUL RUNS:**

SELECT

NAME as TASK\_NAME,

date\_trunc(

'second',

CONVERT\_TIMEZONE('Asia/Calcutta', SCHEDULED\_TIME)

) as SCHEDULED\_TIME,

INITCAP(STATE) as STATUS,

RUN\_ID,

TIMESTAMPDIFF(SECOND, QUERY\_START\_TIME, COMPLETED\_TIME) as DURATION,

(select avg(duration) from (select TIMESTAMPDIFF(SECOND, QUERY\_START\_TIME, COMPLETED\_TIME) as DURATION from snowflake.account\_usage.task\_history WHERE

SCHEDULED\_TIME =:daterange AND NAME=:TASK\_NAME AND INITCAP(STATE) IN ('Failed', 'Cancelled','FAILED\_AND\_AUTOSUSPENDED'))) as avg\_duration,

SCHEMA\_NAME,

DATABASE\_NAME

FROM

snowflake.account\_usage.task\_history

WHERE

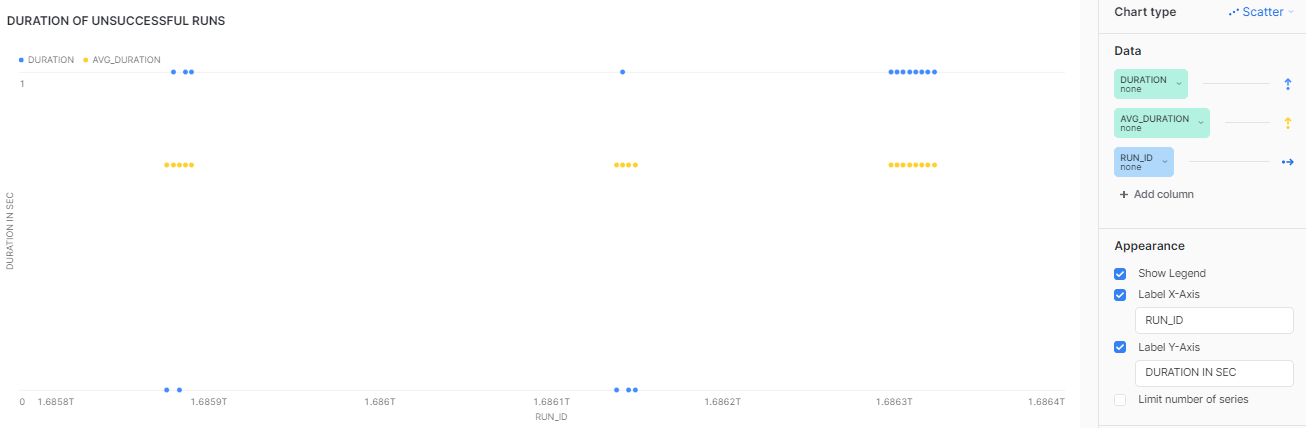
SCHEDULED\_TIME =:daterange AND NAME=:TASK\_NAME

-- AND STATE=:STATUS

AND INITCAP(STATE) IN ('Failed', 'Cancelled','FAILED\_AND\_AUTOSUSPENDED')

ORDER BY

DURATION DESC ;



**1.11 TASK CATEGORY:**

SELECT NAME as TASK\_NAME ,QUERY\_TEXT,STATE AS STATUS,

CASE

WHEN lower(QUERY\_TEXT) like '%insert%' AND upper(CONDITION\_TEXT) like '%SYSTEM$STREAM\_HAS\_DATA%' THEN 'CDC'

WHEN lower(QUERY\_TEXT) like '%insert%' THEN 'Ingestion'

WHEN lower(QUERY\_TEXT) like '%copy into%' THEN 'Loading'

WHEN lower(QUERY\_TEXT) like '%describe%' THEN 'Verify Metadata'

WHEN lower(QUERY\_TEXT) like '%update%' THEN 'Modification'

WHEN lower(QUERY\_TEXT) like '%select%' THEN 'Retrieval'

WHEN lower(QUERY\_TEXT) like '%drop%' THEN 'Management'

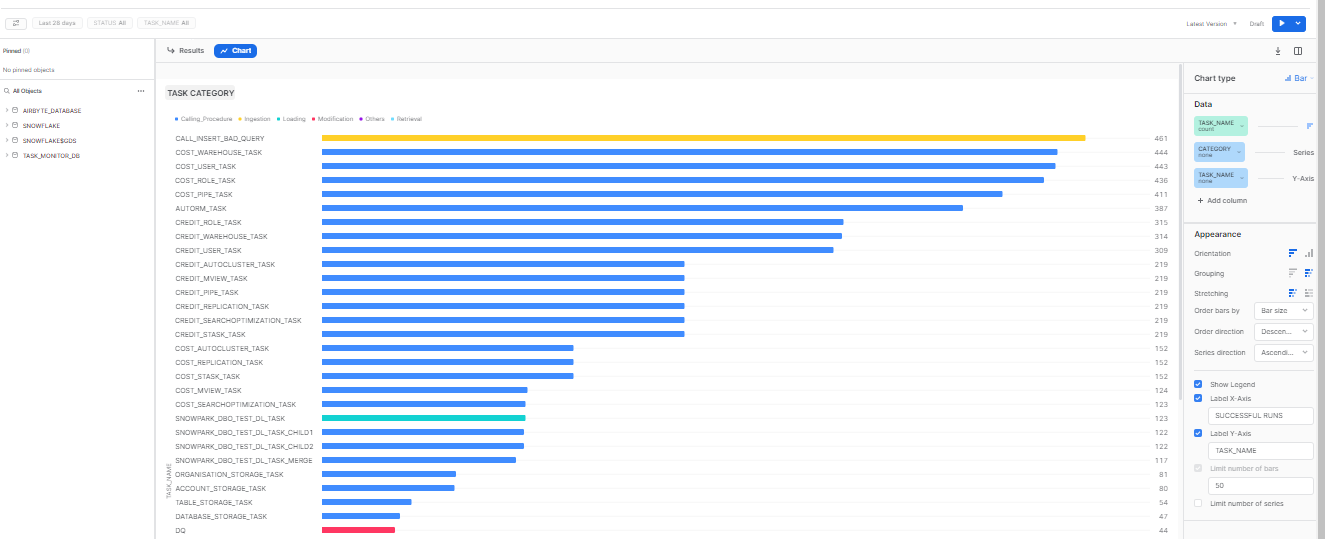
WHEN lower(QUERY\_TEXT) like '%call%' THEN 'Calling\_Procedure'

ELSE 'Others'

END AS category

FROM SNOWFLAKE.ACCOUNT\_USAGE.TASK\_HISTORY

WHERE STATUS='SUCCEEDED' AND TASK\_NAME IN (SELECT NAME FROM SNOWFLAKE.ACCOUNT\_USAGE.GRANTS\_TO\_ROLES WHERE GRANTEE\_NAME=CURRENT\_ROLE() AND (GRANTED\_ON ='TASK' OR PRIVILEGE IN ('EXECUTE MANAGED TASK','EXECUTE TASK') ) AND DELETED\_ON IS NULL) ;



**1.12 DETAILED TASK HISTORY:**

SELECT

NAME as TASK\_NAME,

date\_trunc(

'second',

CONVERT\_TIMEZONE('Asia/Calcutta', SCHEDULED\_TIME)

) as SCHEDULED\_TIME,

initcap(STATE) AS STATUS,

ERROR\_MESSAGE,

CONDITION\_TEXT,

RUN\_ID

FROM

snowflake.account\_usage.task\_history

WHERE

SCHEDULED\_TIME = :daterange

AND NAME = :TASK\_NAME

AND STATE = :STATUS

-- AND QUERY\_ID='79a679c0616ccd7527c606624700e4e4'

ORDER BY

SCHEDULED\_TIME DESC;

//SELECT \* FROM snowflake.account\_usage.task\_history;

