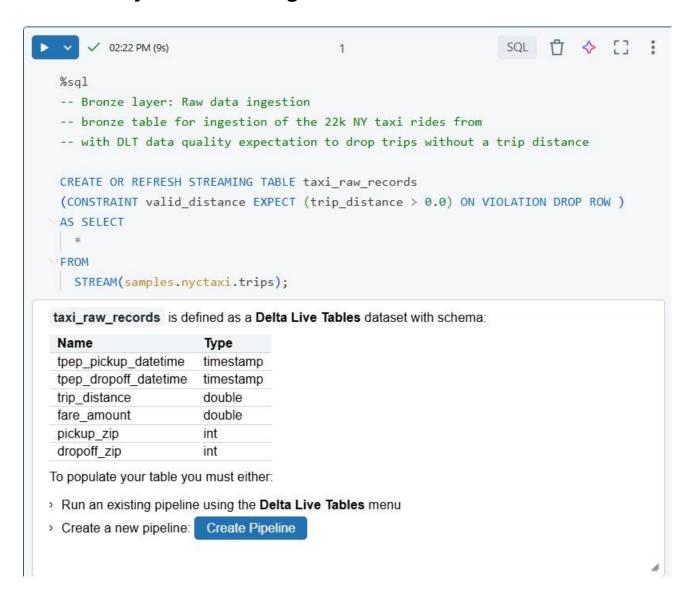
Delta Live Tables

Submitted By-

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1. Bronze layer: Raw data ingestion:



2. Silver layer 1: Flagged rides:

```
SQL 🗇 ♦ [] :

✓ 2 minutes ago (<1s)
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                                           2
 %sql
 -- Silver layer 1: Flagged rides
 -- silver layer: data transformations and cleansing
 -- we look into short trips or trips within the same zip code that cost more than
 $50
 CREATE OR REFRESH STREAMING TABLE flagged_rides
 AS SELECT
   date_trunc("week", tpep pickup datetime) as week,
   pickup zip as zip,
   fare amount, trip distance
 FROM
   STREAM(LIVE.taxi_raw_records)
          ((pickup zip = dropoff zip AND fare amount > 50) OR
 WHERE
          (trip distance < 5 AND fare amount > 50));
flagged_rides is defined as a Delta Live Tables dataset with schema:
 Name
              Type
 week
              timestamp
              int
 zip
              double
 fare_amount
              double
 trip_distance
To populate your table you must either:
Run an existing pipeline using the Delta Live Tables menu
Create a new pipeline:
                      Create Pipeline
```

3. Silver layer 2: Weekly statistics

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                                            3
 %sql
 -- Silver layer 2: Weekly statistics
 -- calculate avg fares and trip distances for each week
 CREATE
 OR REFRESH MATERIALIZED VIEW weekly_stats
 AS SELECT
   date_trunc("week", tpep_pickup_datetime) as week,
   AVG(fare_amount) as avg_amount,
   AVG(trip_distance) as avg_distance
 FROM
  live.taxi_raw_records
 GROUP BY
   week
 ORDER by week ASC;
weekly_stats is defined as a Delta Live Tables dataset with schema:
 Name
               Type
 week
               timestamp
 avg_amount
               double
 avg_distance double
To populate your table you must either:
> Run an existing pipeline using the Delta Live Tables menu
Create a new pipeline:
                       Create Pipeline
```

4. Gold layer: Top N rides to investigate:

```
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                                            4
 %sql
 -- gold layer using materialized for downstream usage, e.g. BI
 -- join weely_stats with flagged_rides for top n rides to investigate
 -- display top n short distance and costly rides
 CREATE OR REPLACE MATERIALIZED VIEW top_n
 AS SELECT
   weekly_stats.week,
   ROUND(avg_amount, 2) as avg_amount,
   ROUND(avg_distance, 3) as avg_distance,
   fare_amount,trip_distance, zip
 FROM live.flagged_rides
 LEFT JOIN live.weekly_stats ON weekly_stats.week = flagged_rides.week
 ORDER BY fare_amount DESC
 LIMIT 3;
top_n is defined as a Delta Live Tables dataset with schema:
 Name
               Type
 week
               timestamp
 avg amount
               double
 avg_distance
               double
 fare amount
               double
 trip distance
               double
               int
 zip
To populate your table you must either:
> Run an existing pipeline using the Delta Live Tables menu
> Create a new pipeline: Create Pipeline
```

--Thank You!