

CHALLENGE 4

DAY 3 – WEEK 3

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1 - Data Storage - State vs Event Table

A - Example - Parcel Tracking:

- State Table: The state table stores the current state of the parcel at any given time. It contains columns representing the different attributes of the parcel (e.g., location, status).
- Event Table: The event table records each event that occurs during the parcel's journey. It contains columns representing event details (e.g., timestamp, location, event type).

B - Circle - Funnel Analysis:

- State Table: The final state of the acquisition funnel in a state table would show the current status of each prospect in the funnel (e.g., new lead, contacted, qualified).
- Event Table: The event table would log each event in the acquisition funnel, such as when a prospect fills out a form, is contacted, or progresses through the funnel stages.

C - Greenweez - Product Catalog Monitoring:

- State Table: The state table would display the current state of the product catalog, including product details, prices, and promotions.
- Event Table: The event table would record each change or update made to the product catalog, including additions, deletions, price changes, and promotions.

2 - Business Needs - State vs Event Table

A - Circle - Funnel Analysis:

- Current View of Funnel: State Table
- Analyzing Conversion Rate and Time Between Steps: Event Table

B - Greenweez - Product Catalog Monitoring:

- Current View of Catalog: State Table
- Evolution of Catalog Over Time: State History Table (to compare changes day by day)

3 - Data Transfer Methods

A - Greenweez - Product Catalog Monitoring:

- Method of Data Transfer: Regular Data Export from SQL to BigQuery using a batch process (e.g., scheduled SQL exports)
- Additional Action for Evolution Analysis: Schedule a daily query to snapshot the state table and historize it in BigQuery.

B - Circle - Funnel Analysis:

- Method of Data Transfer: Trigger-based CDC (Change Data Capture) to export data from Google Sheet to BigQuery.
- EL Tools for Trigger-based CDC: Tools like Stitch, Fivetran, or custom scripts utilizing Google Apps Script.