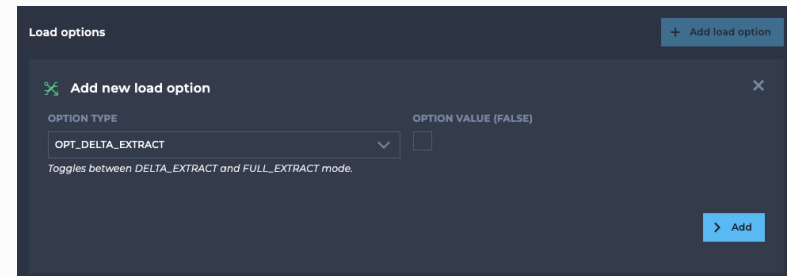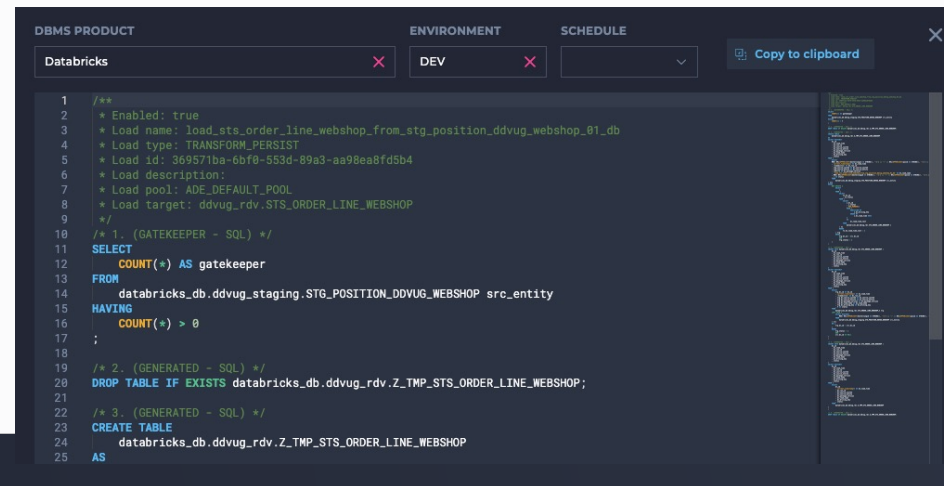# Identifying Relationship and driving Key Patterns (3.1)

- To track changes in the relationships, we utilize status tracking satellites (also known as effectivity satellites) in either link or hub -tables.

o ADE has two types of status tracking satellite loading patterns depending on the nature of the source data:

  o Pattern 1: If data is loaded in delta-batches (only changed data, CDC), the logic for loading the status tracking satellite follow "delta-loading". In these cases, the driving key dictates what record is valid and what is not. This method can't detect hard deletions in the source data, since source data contains only changed data.

  ▪ Pattern 2: If data is loaded in full-batches, meaning full extract of the source table, status tracking satellite can track hard-deletions in the source data, in addition to tracking relationship validity. This also utilizes driving key concept, but the loading logic is slightly different from the delta-loading.

o Status is marked as active or inactive (0|1) in status-tracking satellite based on the driving key

Load option to dictate delta or full extract. Default options can be configured.

SQL for the status-tracking satellite is generated depending on the above load option.

Identifying Relationship and driving Key Patterns (3.2)

- In the example data model, L_ORDER_LINE_WEBSHOP (src: Position) has a status tracking satellite STS_ORDER_LINE_WEBSHOP, that is used to track the validity of the relationships.
  - In the loading logic, load option is set to full extract, meaning hard-deleted records will be correctly detected.
    - ADE automatically generates a current-views for satellites (named with postfix _C) to extract the most recent record based on load time