Stored programs pseudocode

parse_event Procedure

- 1. Initialize variables for event attributes (e.g., event type, account ID, event ID, etc.)
- 2. Determine the maximum data feed ID from **SM** data feed table.
- 3. Iterate over each row in the **SM_data_feed** table using a while loop.
 - For each iteration, retrieve event-related data (e.g., SMUID, event ID, event category codes, event time, hashtags, content) for the current data_feed_id.
 - Parse the event category codes (evcatcodes) to extract two category values, adjusting for out-of-range values.
 - Format event time to a proper DATETIME format or set a default value if null.
 - Use a CASE statement to decide which upsert procedure to call based on the event category (evcat1):
 - If evcat1 is 0 or 4, call UpsertSocialEvent.
 - If evcat1 is between 1 and 3, call UpsertDeviceLog.
 - Otherwise, call UpsertActions.
 - o Increment the index to move to the next row.

UpsertSocialEvent Procedure

- 1. Check if an entry with the given **event_id** exists in the **social_event** table.
- 2. If the entry exists, update the existing record with the new data.
- 3. If the entry does not exist, insert a new record into the **social_event** table with the provided data.

UpsertDeviceLog Procedure

- 1. Check if an entry with the given **event id** exists in the **device event log** table.
- 2. If the entry exists, update the existing record with the new data.
- 3. If the entry does not exist, insert a new record into the **device_event_log** table with the provided data.

UpsertActions Procedure

- 1. Check if an entry with the given **event_id** exists in the **social_action** table.
- 2. If the entry exists, update the existing record with the new data.
- 3. If the entry does not exist, insert a new record into the **social_action** table with the provided data.

process hashtag Procedure

- 1. Determine the maximum data feed ID from **SM** data feed table.
- 2. Iterate over each row in the **SM_data_feed** table using a while loop.
 - For each iteration, retrieve the event ID and hashtags for the current data_feed_id.
 - Split the hashtags string into individual tags.
 - For each tag, call **UpsertHashtags** to either update an existing tag or insert a new one, linking it with the event.
 - Increment the index to move to the next row.

UpsertHashtags Procedure

- 1. Check if the provided hashtag already exists in the **hashtags** table.
- 2. If the hashtag exists, retrieve its ID.
- 3. If the hashtag does not exist, insert it into the **hashtags** table and retrieve the new ID.
- 4. Check if an association between the event and the hashtag already exists in the **event tag** link table.
- 5. If the association does not exist, insert a new record into the **event_tag** table to link the event with the hashtag.

process_ip_address Procedure

- Declare a variable to hold the IP address (v_ip_address).
- 2. Retrieve an IP address from the **SM_data_feed** table and store it in **v_ip_address**.
- 3. Check if v ip address is null.
 - If yes, set v_ip_address to the default value of '0.0.0.0'.
- 4. Remove all non-numeric characters from v ip address, except for periods.
- 5. Insert the processed v_ip_address into the ip_address_table.

process location Procedure

- 1. Declare variables for person ID, account ID, location, and location ID.
- 2. Retrieve **person_id** and **account_id** from the **social_account** table where **SMUID** matches **p SMUID**.
- 3. Retrieve location from the SM_data_feed table where SMUID matches p_SMUID.
- 4. If **v** location is not null:
 - Check if the location already exists in the address table for the given person_id and location.
 - If the location does not exist (v_location_id is null), insert a new record into the address table with person_id, account_id, and location.

process_SMUID Procedure

- 1. Declare a variable for the social account ID (**SM_social_account_id**).
- 2. Retrieve **social_account_id** from the **social_account** table where **SMUID** matches **p_SMUID**.
- 3. If **SM** social account id is null:
 - Insert a new record into the social account table with SMUID.
 - Set SM_social_account_id to the last inserted ID.

add device Procedure

- 1. Declare variables for account ID and device ID.
- Call processSMUID with p_SMUID to process the social media user ID and retrieve the account ID.
- Set v_account_id to the output of processSMUID.
- 4. If **p_device** is not null:
 - Retrieve device_id from the device_make table where make_name matches p_device.
 - o If v_device_id is null (the device make does not exist):
 - Insert a new make into device make with p device.

 Insert a new model into device_model with "UNKNOWN" as the model name and the last inserted make ID as make_id.

Insert a new device record into device with $p_ip_address$, the last inserted model ID as $model_id$, and $v_account_id$.