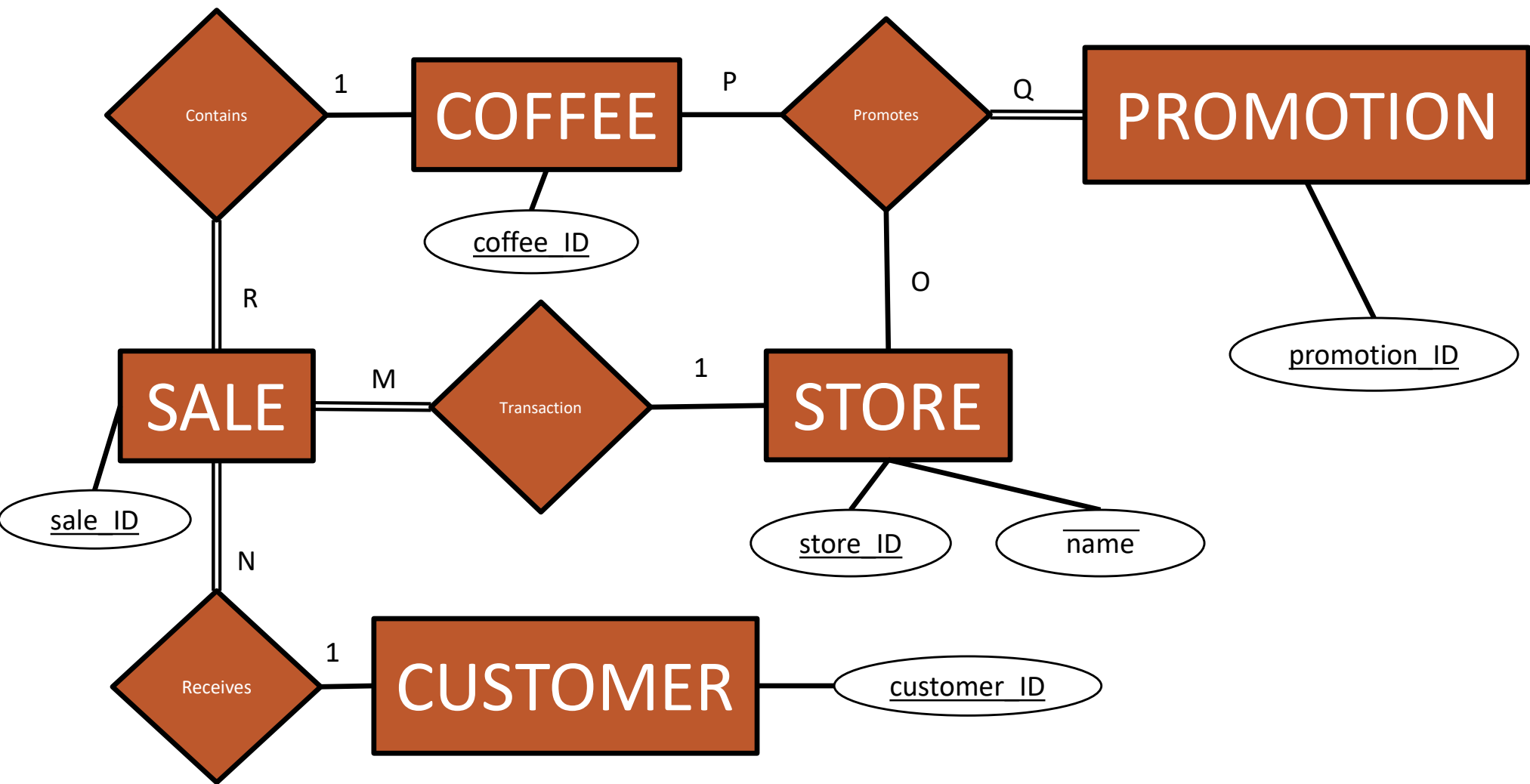
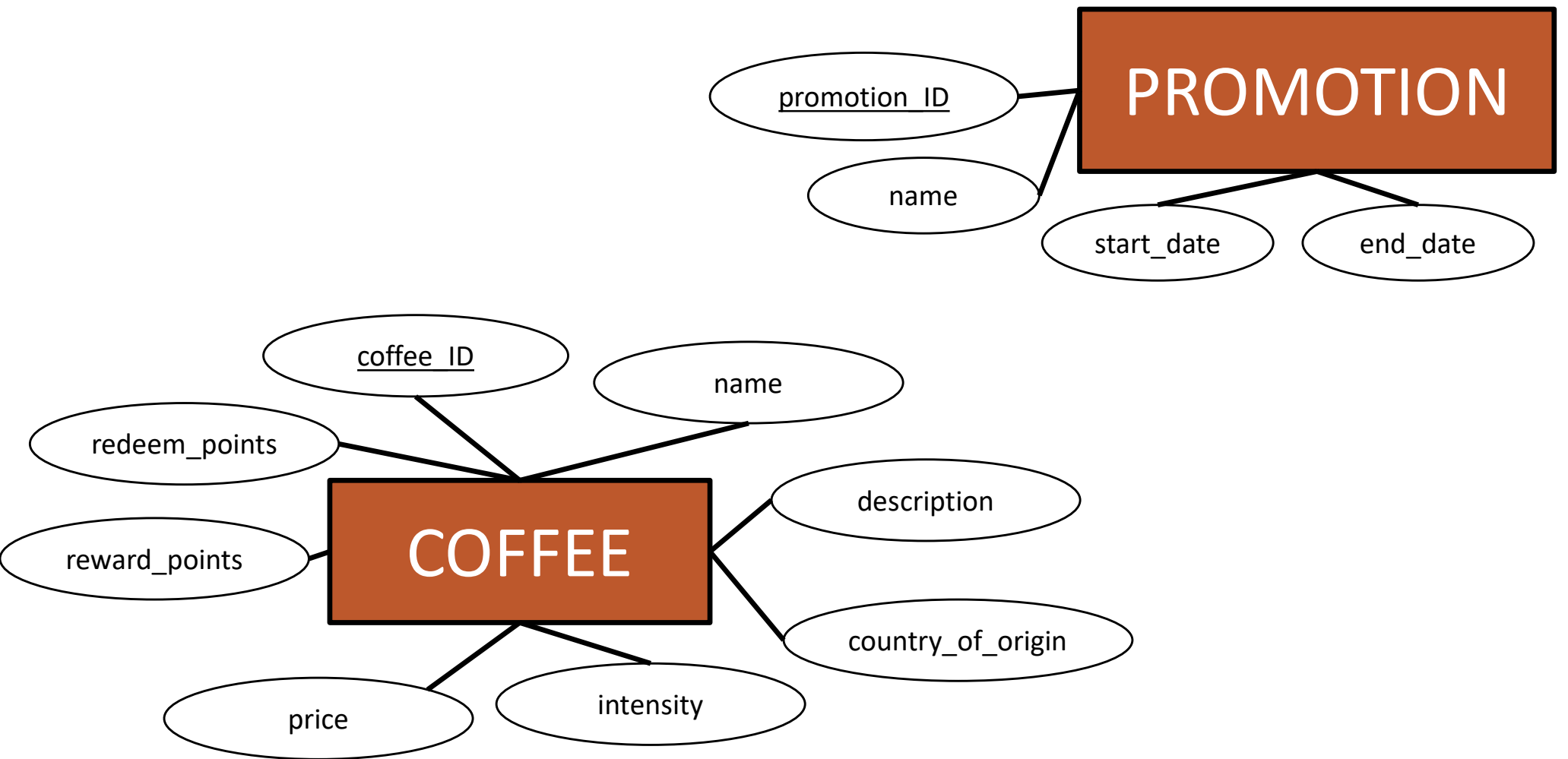


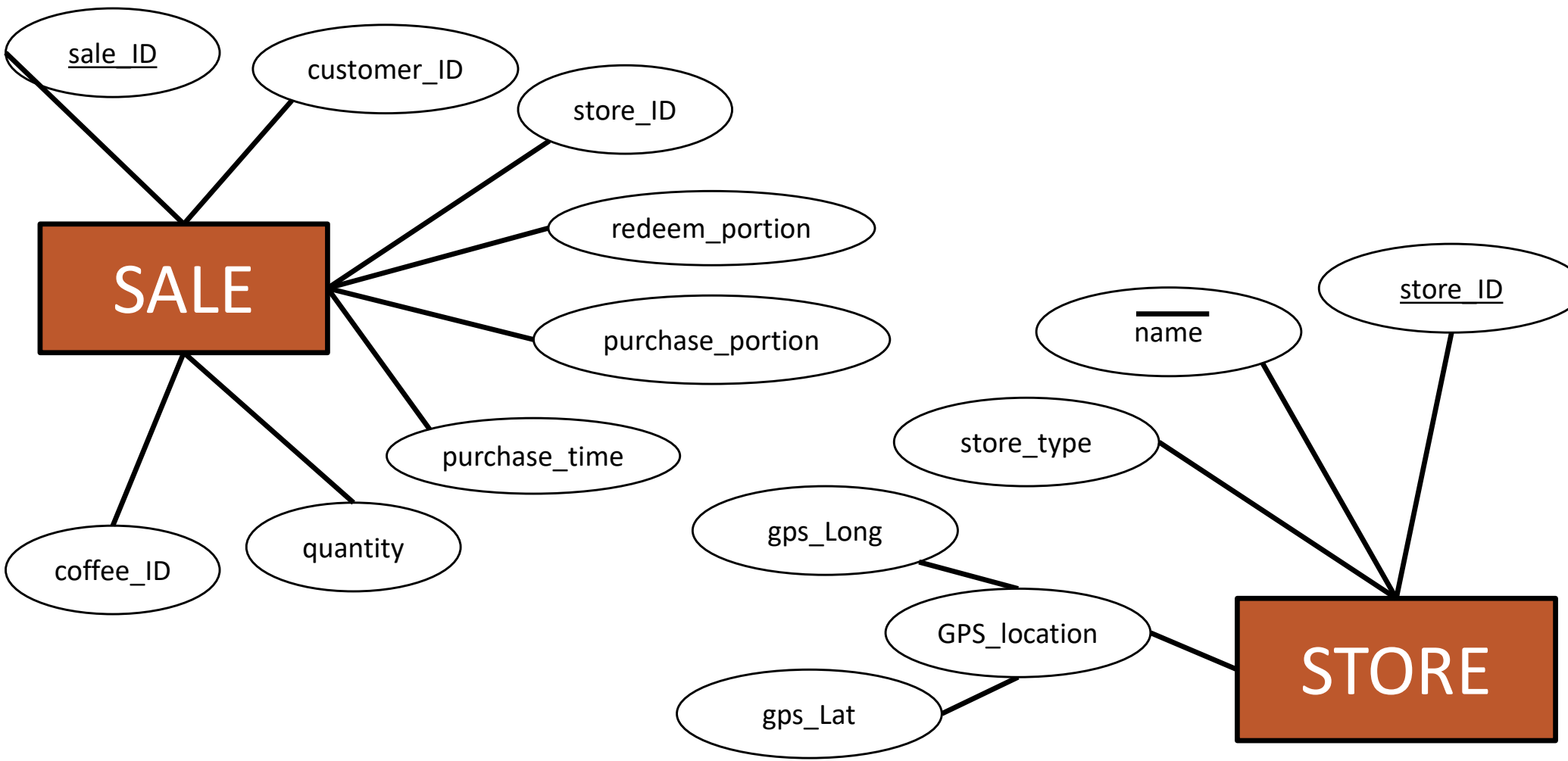
Coffee Boutique Group: Carpe Data

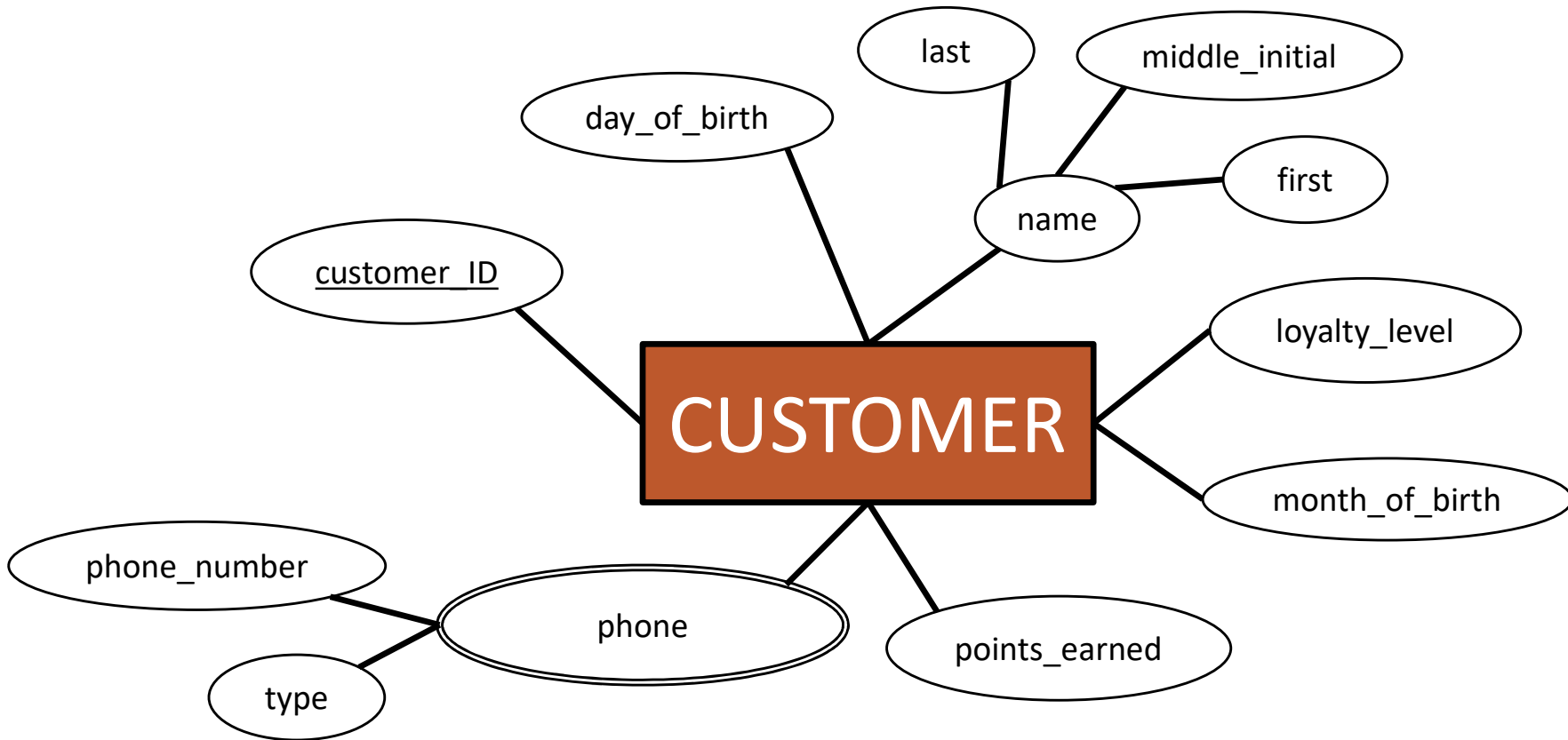
PROJECT PHASE #1

CLARK – DANIEL - DHARMA









Entities

1. **COFFEE:** coffee_ID, name, description, country_of_origin, intensity(1-12), price, reward_points, redeem_points;
2. **SALE:** sale_ID, customer_ID, store_ID, coffee_ID, quantity, purchase_time, purchase_portion, redeem_portion;
3. **STORE:** store_ID, name, store_type, GPS_location(gps_Long, gps_Lat);
4. **CUSTOMER:** customer_ID, name(first, last, middle_initial), day_of_birth, month, member(loyalty_level, points_earned), phone_number{Home, Mobile, Work, Other};
5. **PROMOTION:** promotion_ID, name, start_date, end_date, promoted_coffees, list_of_stores;

Relationships

1. **PROMOTES:** <COFFEE, PROMOTION, STORE>, P:Q:O, PARTIAL/TOTAL/PARTIAL;
2. **CONTAINS:** <COFFEE, SALE>, 1:R, PARTIAL/TOTAL;
3. **RECEIVES:** <CUSTOMER, SALE>, 1:N, PARTIAL/TOTAL;
4. **TRANSACTION:** <SALE, STORE>, M:1, TOTAL/PARTIAL;

Assumptions & Clarifications

A customer only maintains 1 level of membership at any given time and so the attributes of `loyalty_level` and `points_earned`

If a member has a NULL value for their loyalty_level, that member is considered NOT to be a member. Additionally, that member's `points_earned` value will remain 0 if they are NOT a member(NULL value for loyalty_level).

Each Sale entry of coffee(single/multiple types of coffee) will be recorded as one type per entry with any amount of quantity per entry. `quantity` will therefore be added as an attribute to SALE.

Each Promotion Will have at least one store and Coffee where it is promoted thus Promotion will have Total Participation with "Promotes". (Total Participation of this entity will be Enforced through Triggers and is not implemented in the SQL DB of Part 1).

When a customer purchases a coffee, they will earn 1/10 points for every 1 cent spent per coffee. When a customer purchases a coffee, the value of the reward points earned will be the cost of the coffee multiplied by ten. Every point will then be the equivalent to 1 cent. For example, a customer uses 10 points to redeem a coffee and that customer will get 10 cents off the coffee.

ER-Model

Group: Carpe Data

BoutiqueCoffee Database – Phase #1

STORE(store_ID, name, store_type, gps_Long, gps_Lat)

COFFEE(coffee_ID, name, description, country_of_origin, intensity, price, reward_points, redeem_points)

CUSTOMER(customer_ID, first, last, middle_initial, day_of_birth, month, loyalty_level, points_earned)

PHONE(customer_ID, phone_number, phone_type)

FK(customer_ID) → CUSTOMER(customer_ID)

SALE(sale_ID, customer_ID, store_ID, coffee_ID, quantity, purchase_time, purchase_portion, redeem_portion)

FK(customer_ID) → CUSTOMER(customer_ID)

FK(store_ID) → STORE(store_ID)

FK(coffee_ID) → COFFEE(coffee_ID)

PROMOTION(promotion_ID, name, start_date, end_date)

PROMOTES(promotion_ID, coffee_ID, store_ID)

FK(promotion_ID) → PROMOTION(promotion_ID)

FK(coffee_ID) → COFFEE(coffee_ID)

FK(store_ID) → STORE(store_ID)
