UML Diagram
Oct 6, 2022 at 7:55 PM

Food
- name
- Calorie_per_serving
- servings

Split
- split_id
- workout 1
- workout 2
- workout 3
- workout 4
- workout 5
- workout 6
- workout 7

Workouts
- workout_name
- muscle_group
- sets
- weights
- reps
- equipment_name

Customer
- customer_id
- height
- weight
- name
- age
- goals (bulk, cut, maintain)
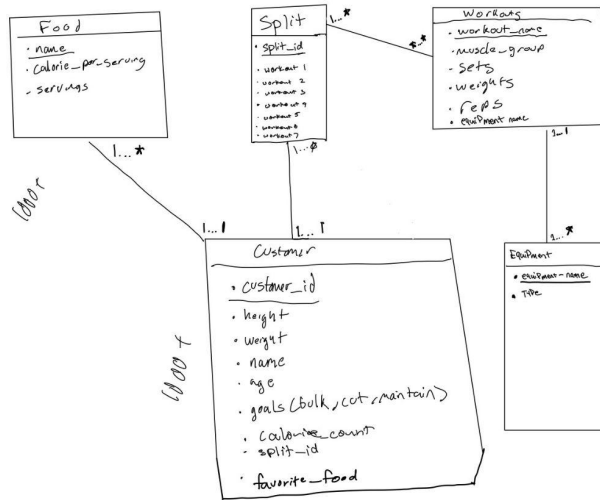- calorie count
- split_id
- favorite_food

Equipment
- equipment_name
- type

Each split will contain a unique workout so 1 split can have many workouts.

Assumptions of Entities:
1. Customer
   a. We assume every customer has a height, weight, name, age, goal, calorie_count, and favorite_food when they register. We create a unique cusomter_id for each customer as well as recommend them a split (split_id).
2. Split
   a. Every split will have a unique split_id and also contain five to seven workouts.
3. Food
   a. Each food will have a unique food_name and will have the number of calories per serving as well as the number of servings.
4. Workouts
   a. Each workout will have a unique workout name. Each workout will also have a target number of sets, reps, weights, and muscle_group. It will also have which equipment it will need.
5. Equipment
   a. Each equipment will have an equipment_name and the type of equipment it will be used for (free weight, body weight etc).

Assumptions of Relationships:
1. Customer
   a. Each Customer can have one favorite food and one split_id
2. Split
   a. Each split can have to 7 different workouts
3. Workout
   a. Each workout can have upto one equipment needed
4. Food
   a. Each food will be used to decrement the calorie_count
5. Equipment
   a. Equipments will be used by workouts

Logical Design (Relational Schema)

```
Customer(CustomerID VARCHAR(255) [PK], Height INT, Weight Decimal(10,2), Name
VARCHAR(255), Age INT, Goals VARCHAR(255), Calorie_count INT, Split_id [FK to
Split.split_id], Favorite_food[FK to Food.Name]))


Food(Name VARCHAR(255), Calorie_per_Serving INT, Servings INT)


Workouts(Workout_name VARCHAR(255), Muscle_group VARCHAR(255), Sets INT, Weights INT,
Reps INT, Equipment_Used VARCHAR(255) [FK. to Equipment.Equipment_name])


Split(split_id VARCHAR(255) [PK], Workout_1  VARCHAR(255) [FK to
Workouts.Workout_name], Workout_2  VARCHAR(255)[FK to Workouts.Workout_name],
Workout_3  VARCHAR(255)[FK to Workouts.Workout_name], Workout_4  VARCHAR(255) [FK to
Workouts.Workout_name], Workout_5  VARCHAR(255)[FK to Workouts.Workout_name],
Workout_6  VARCHAR(255)[FK to Workouts.Workout_name], Workout_7  VARCHAR(255)[FK to
Workouts.Workout_name])


Equipment(Equipment_name VARCHAR(255), Type VARCHAR(255))
```