



### Assumptions

- Assume that every **Food item** can only be made by at most one restaurant thus is uniquely identified by its name. It also has the attributes calories, carbs, protein, and fat content.
- Assume that a **Restaurant** is uniquely identified by its ID and also has the attributes name and address.
- Assume that a **Customer** is uniquely identified by their ID and also has the attributes name, age, weight, and height.
- Each **Health Goal** is uniquely identified by its name and also has the attributes calorie ceiling, calorie floor, target weight, target carbs, target protein, and target fat.
- An **Exercise** is uniquely identified by its name and also contains info on the amount of calories burned by performing it.
  
- A **Customers** can order from multiple **Restaurants**, and a **Restaurant** can serve multiple **Customers**
- A **Customer** can eat multiple **Food items** and a **Food item** can be eaten by multiple **Customers**
- A **Restaurant** serves at least one **Food item**, but a **Food item** can be served by at most one **Restaurant**
- A **Customer** can have exactly one **Health Goal**, but multiple **Customers** can have the same **Health Goal**
- A **Customer** can do multiple **Exercises** and an **Exercise** can be performed by multiple **Customers**.
- An **Exercise** helps achieve multiple **Health Goals**, and **Health Goals** can be achieved with multiple **Exercises**.

### Relational Schema:

**FoodItem**(ItemName VARCHAR(255) [PK], Calories INT, Carbs INT, Protein INT, Fat INT)

**Restaurant**(RestaurantID INT [PK], Name VARCHAR(30), Address VARCHAR(30))

**Customer**(CustomerID INT [PK], GoalTitle [FK], Name VARCHAR(30), Age INT, Weight INT, Height INT)

**HealthGoal**(GoalTitle VARCHAR(30) [PK], CalorieCeiling INT, CalorieFloor INT, TargetWeight INT, TargetCarbs INT, TargetProtein INT, TargetCarbs INT, TargetFat)

**Exercise** (ExcerciseName VARCHAR(30) [PK], CaloriesBurned INT)