

Relational Schema in 3NF

**User**(ID, Name)

**Workouts**(Type, Intensity, Duration, Time, Calories Burnt, I.D.)

**Weights**(Units, I.D.)

**Meals**(Time, Amount, I.D.)

**Food/Beverages**(Type)

**Micronutrients**(F/B Type, Type, Quantity, Recommended Amount)

**Macronutrients**(F/B Type, Type, Calories per Serving, Grams per Serving)

**Serving Size**(Macro Type, Units)

**Graphs**(Workout Type, Weight Units, Macro Type, Weight Over Time, Percent of each  
Macronutrient, Calories Burnt per Day, Calories Consumed per day)

**Have A**(Macro Type, Serving Size Units)

**Generates**(Workout Type, Weight Units)

**Has**(F/B Type, Micro Type, Macro Type)

- F/B Type from **Micronutrients** is a foreign key from **Food/Beverages**.
- F/B Type from **Macronutrients** is a foreign key from **Food/Beverages**.
- Macro Type from **Serving Size** is a foreign key from **Macronutrients**.
- Workout Type from **Graphs** is a foreign key from **Workouts**.
- Weight Units from **Graphs** is a foreign key from **Weight**.
- Macro Type from **Graphs** is a foreign key from **Macronutrients**.
- I.D. from **Workouts** is a foreign key from **User**.
- I.D. from **Weight** is a foreign key from **User**.
- I.D. from **Meals** is a foreign key from **User**.
- Macro Type, from **Have A** is a foreign key from **Macronutrients**.
- Serving Size Units from **Have A** is a foreign key from **Serving Size**.
- Workout Type from **Generates** is a foreign key from **Workouts**.
- Weight Units from **Generates** is a foreign key from **Weight**.
- F/B Type from **Has** is a foreign key from **Food/Beverages**.
- Micro Type from **Has** is a foreign key from **Micronutrients**.
- Macro Type from **Has** is a foreign key from **Macronutrients**.