DATABASE NORMALIZATION

Exercise table FDs:
ExerciseName → Functionality:
The name of the exercise determines what the functionality of the exercise is.

Program table FDs:
ProgramName→ {Intensity, Duration}
The name of the Program determines what the level of difficulty(intensity) of the exercise is and how long it is

Meal table FDS:
MealName→ {calories}
The name of the Meal determines how many calories the meal is.

Goal table FDS:
{GoalNumber, ID}→{ TargetWeight, TimeFrame, GoalAchieved }
The goal number and id determines the desired weight, how long it will take to accomplish the goal, and if it has been achieved by a user.

Person table FDS:
ID →{Name, Weight, Height, Age, Gender}
The id of a person determines the name, weight, height, age, gender of a person in the database.

Performs table FDS:
{ID, ExerciseName, Date} → Repetitions
The ID of a user, the exercise name, and the date, determines the repetitions performed

NORMALIZED SCHEMA BCNF:

Exercise [ExerciseName: str, Functionality: str]
Program [ProgramName: str, Intensity: str, Duration: int]
Meal [MealName: str, Calories: int]
Goal [GoalNumber: int, ID: int, TargetWeight: int, TimeFrame: int, GoalAchieved: str]
Person [ID: int, Name: str, Weight: int, Height: int, Age: int, Gender: str]
Performs [ID: int, ExerciseName: str, Date: str, Repetitions: int]

FOREIGN KEYS:
Goal.ID references Person.ID
Performs.ID references Person.ID