Goal

goalID

fat

protein

carb

calroies

startDate

endDate

User

userID

username

password

WeeklyPlan

planID

createUserId

Recipe

recipeID

recipeName

userID

Food

foodID

foodName

fat

protein

carb

weight

0..* make 1..1

decide 0..* 0..*

0..* contains 1..*

0..* create 0..*

0..* use 1..*

Assumption:
A Goal table includes goalID as primary key, fat, protein, carb,calroies, startDate, and endDate attributes.
A user table includes userID as primary key, username, and password attributes.
A WeeklyPlan table includes planID as primary key and createUserID attribute.
A Recipe table includes recipeID as primary key, recipeName, and userID
A Food table includes foodID as primary key, foodName, fat protein and carb as attributes.

User can have zero or many Goal, but a Goal must belong a User.
User can have zero or many WeeklyPlan and a WeeklyPlan can belong zero or many Users.
WeeklyPlan must have at least one Recipe and a Recipe can be included in zero or more WeeklyPlan
User can create zero or more Recipes and the Recipes can be created by zero or more Users.
Recipe must have at least one Food and Food can be included in zero or more Recipe

Relation Schema:
User(userID:Varchar(30)[PK], username:Varchar(30), password:Varchar(30))
Goal(goalID:int[PK], fat:Real, protein:Real, carb:Real, calories:Real, startDate:Varchar(30), endDate:Varchar(30))
WeeklyPlan(planID:int[PK], createUserId:Varchar(30))
Recipe(recipeID:int[PK], recipeName: Varchar(30), userID: Varchar(30))
Food(foodID: int[PK], foodName: Varchar(30), fat: Real, protein:Real, carb:Real)
use(recipeID:int[PK], foodID:int[PK], weight: Real)