**Fitness Tracking Application**

**Domain Description**

1. **USER** : Represents individuals who use the fitness tracking application.

ATTRIBUTES : user\_id (PK), name, email, age.

1. **WORKOUT :** Describes a specific exercise session performed by a user.

ATTRIBUTES : workout\_id (PK), user\_id (FK), date, duration, type of workout.

1. **ACTIVITY :** Represents different types of physical activities that can be part of a workout.

ATTRIBUTES : activity\_id (PK), name, description, etc.

1. **PLAN :** Represents pre-designed fitness plans created by the application or fitness experts.

ATTRIBUTES : plan\_id (PK), name, description.

1. **PROGRESS :** Stores data regarding the user's progress towards their fitness goals.

ATTRIBUTES : progress\_id (PK), user\_id (FK), date, weight, measurements.

1. **NUTRITION :** Describes the nutritional intake of the user.

ATTRIBUTES : nutrition\_id (PK), user\_id (FK), food name, calories.

1. **GOAL :** Represents the fitness objectives set by the user.

ATTRIBUTES : goal\_id (PK), user\_id (FK), type (e.g., weight loss, muscle gain), target weight, target date, etc.

1. **ACHIEVEMENT** : Stores information about achievements unlocked by the user based on their progress and activities.

ATTRIBUTES : achievement\_id (PK), user\_id (FK), name, description.

1. **DEVICE** : Represents the devices used to track fitness activities, such as fitness trackers, smartwatches, etc.

ATTRIBUTES : device\_id (PK), user\_id (FK), name, brand.

1. **CHALLENGE:** Describes challenges or competitions organized within the application.

ATTRIBUTES : challenge\_id (PK), name, description, start date, end date, etc.

**RELATIONSHIPS:**

* A User can have multiple Workouts. (One-to-Many)
* Each Workout can consist of multiple Activities. (One-to-Many)
* Users can have multiple Goals. (One-to-Many)
* Users can track their Progress over time. (One-to-Many)
* Users can log their Nutritional intake. (One-to-Many)
* Users can unlock multiple Achievements. (One-to-Many)
* Users can use multiple Devices for tracking. (One-to-Many)
* Users can participate in multiple Challenges. (Many-to-Many)

**ER DIAGRAM :**

1

Workout

Device

Achievement

Goal

Nutrition

Progess

Plan

Activity

User