DATABASE REPORT

A Fitness-Tracking Application

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INTRODUCTION

Application to be implemented:- A fitness-tracking application

As part of developing the fitness-tracking application, we will implement a robust database system to store and manage user data. The database will be designed using a relational database model, which will allow us to store data efficiently related to user profiles, fitness goals, workout sessions, and exercise logs.

The database will consist of several tables, each representing a different entity within the application.

1. Users - this entity will store information about each user of the application.
2. Fitness goals - this entity will store information about each user's fitness goals.
3. Workout sessions - this entity will store information about each user's workout sessions.
4. Exercise log - this entity will store information about the exercises performed during each workout session.

By implementing this database system, we will be able to manage and analyze user data efficiently, providing personalized recommendations and feedback to help users achieve their fitness goals.

DATABASE INFORMATION

Table Name	Description	Primary Key	Foreign Key
Users	Store information about each user of the application.	membershipId	-
Fitness goals	Store information about each user's fitness goals.	goalId	membershipId
Workout session	Store information about each user's workout session.	sessionId	membershipId
Exercise log	Store information about the exercise performed during each workout session.	logId	sessionId

DATA DICTIONARY

Table structure for ***Users***

Field	Description	Data Type	Null
membershipId	Membership ID	int	No
username	Member's name	varchar(100)	No
email	Account Email	varchar(100)	No
password	Account Password	varchar(100)	No
age	Member's age	int	No
gender	Member's gender	boolean	No
height	Member's height	float	No
weight	Member's weight	float	No

Table structure for ***Fitness goals***

Field	Description	Data Type	Null
goalId	Goal ID	int	No
membershipId	Membership ID	int	No
goalType	Goal type(eg., weight loss, muscle gain, strength training)	varchar(10)	No
targetWeight	Weight target	float	No
tagetBodyFat	Body Fat Percentage target	float	No
targetCalories	Calorie Intake target	float	No

Table structure for ***Workout sessions***

Field	**Description**	**Data Type**	**Null**
sessionId	Session ID	int	No
membershipId	Membership ID	int	No
date	Workout date	datetime	No
duration	Workout duration	datetime	No
caloriesBurned	Calorie burn	float	No

Table structure for ***Exercise log***

Field	**Description**	**Data Type**	**Null**
logId	Exercise log ID	int	No
sessionId	Session ID	int	No
exerciseName	Name of exercise	varchar(100)	No
sets	Sets of the exercise	int	No
reps	Repetitions in a set	int	No
trainWeight	Weight class of exercise instrument (eg., Dumbbell weight, weight plates)	float	Yes

CONCLUSION

With these entities and attributes, the fitness tracking application database can store all necessary data to track user progress towards fitness goals, analyze workout history, and suggest personalized exercise routines.