**Workout Tracker**

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(Team Leader)

CS-H

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**Problem Statement:**

The project is titled “Workout Tracker” which is a mobile application aimed to deliver a routine for a better and healthy lifestyle based on an individual’s health requirements. It includes a personalized dietary and workout plan which will enable the users to choose a balanced routine to meet their desired health status.

No product has been released that emphasized on diet and workout simultaneously customized to every individual’s body configuration and desired outcome. The time required to execute this project is roughly a month or two. Since this application-based project requires both front end and back end development, a dependency is there to coordinate them both and hence the final product will be the result of the productivity achieved from both of them.

This will benefit people who are trying to optimize their health and fitness, either in the gym, at home or the kitchen, to reach a target goal that may take weeks, month or even years. It provides a suitable plan on a weekly template. It encourages people to care for their health, by making the process easier, and fills a market niche.

**Functional goals**

* Allows the user to choose their gender and provide body and health details and then provides options for both exercise and diet plan.
* Allows the user to navigate and choose from selected diet plans and exercise routines and swap out according to his/her convenience.
* Allows the user to keep a track of daily activities and gives reminders to follow the routine set by the user.

**Hardware Requirements:**

Hosting Server

Mobile Client Device (Android/IOS)

Storage Capacity (For Database)

Network Bandwidth

**Software Requirements:**

For Development (Testing):

SQL Database Management Software/MongoDB as Backend

Flutter (Dart) as Framework

Android Studio as IDE

AVD (Android Virtual Device)

For Client (Release):

Android/IOS Operating System

DDL Statements:

Create Table UserAccount(UserID Varchar(20) Primary Key, Email Varchar(30), Username Varchar(20), Password Varchar(30), DateOfBirth Date, FullName Varchar(50), DisplayName Varchar(20), Gender Varchar(10), Bio Varchar(100))

Create Table Stats(Height Float(5), BodyFat Float(5), Weight Float(5), FFMI Float(5), Age Int(3), BMI Float(5), HealthRisk FK)

Create Table Measurements(Shoulders Float(5), Arms Float(5), Forearms Float(5), Chest Float(5), Waist Float(5), Hips Float(5), Thighs Float(5), Calves Float(5), Ankle Float(5), Wrist Float(5))

Create Table Goals(Weight Float(5), BodyFat Float(5), GoalDate Date, Preference FK)

Create Table Exercise(ExerciseID Int(10), Name Varchar(20), Type Varchar(10), Calories Float(5), PrimaryTarget FK, SecondaryTarget FK)

Create Table Workout(Day Int(3), Sets Int(3), Exercise Varchar(20), Reps Int(3))

Create Table WorkoutRoutine(WorkoutID Int(10), DaysandWeek Int(3), Author Varchar(30))

Create Table Diet(DietID Int(10), Day Int(3), DietTime Time, Quantity Int(3))

Create Table Food(FoodID Int(10), Fat Float(5), Carbs Float(5), ServingSizes FK , Calories Float(5), Protein Float(5))