FITNESS AND DIET TRACKER

A MINI-PROJECT REPORT

Submitted by

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BONAFIDE CERTIFICATE

Certified that this project **"FITNESS AND DIET TRACKER"** is the Bonafide work of **"KISHORE KUMAR T, KRITHIK D"** who carried out the project work under my supervision.

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This mini project report is submitted for the viva voce examination to be held on

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INTERNAL EXAMINER **EXTERNAL EXAMINER**

ABSTRACT

In today's fast-paced world, maintaining a healthy lifestyle has become increasingly challenging. Although several fitness and diet applications are available globally, many do not cater to the specific needs of local users or provide an efficient data management system. To address this issue, our project introduces a **Fitness and Diet Tracker**, a database-driven application designed to help users monitor their daily diet and physical activities effectively. The main objective of this project is to assist users in maintaining a balanced diet by recording their meals, tracking calorie intake, and logging workout routines. The system stores and organizes user data, allowing easy retrieval and analysis to generate insights into their health progress. By offering a simple and efficient interface, this system encourages users to develop healthy habits and achieve their fitness goals in a structured manner.

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1. KISHORE KUMAR T

2. KRITHIK D

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INTRODUCTION

1.1 INTRODUCTION

The project helps users to record their daily diet activities and maintain organized information for easy access. The necessary details about meals and calorie intake will be stored and displayed according to user entries. Users can view their recorded data conveniently whenever required for personal reference and tracking.

1.2 SCOPE OF THE WORK

The Fitness and Diet Tracker will help users record and maintain their daily diet activities in an organized manner. It allows users to store information about their meals and calorie intake for easy reference. The system provides simple access and usability for a wide range of users.

1.3 PROBLEM STATEMENT

The need for the project arises as many existing fitness and diet applications are developed by large international companies and require premium access or complex features. Such systems are not easily accessible to all users, especially those seeking a simple platform to record and view their daily diet activities.

1.4 AIM AND OBJECTIVES OF THE PROJECT

The main objective of this project is to allow users to record and view their daily diet activities in a simple and organized manner. This system helps to maintain the details of meals and calorie intake entered by the user. This will allow users to track their eating habits conveniently and consistently.

CHAPTER 2

SYSTEM SPECIFICATIONS

2.1 HARDWARE SPECIFICATIONS

Processor	:	Intel i5
Memory Size	:	8GB (Minimum)
HDD	:	1 TB (Minimum)

2.2 SOFTWARE SPECIFICATIONS

Operating System	:	WINDOWS 10
Front – End	:	HTML, CSS, JS
Back – End	:	ORACLE 11g
Language	:	JAVA, SQL

CHAPTER 3

MODULE DESCRIPTION

This application consists of three modules. When the program runs, it will display the main interface that allows the user to log in and access different features of the system. The description of the modules is as follows:

1. User Login Module

When the person who interacts tries to log in as a user, he/she will be prompted to enter the username and password. Once successfully logged in, the user can access the system to record and view diet-related data.

2. Data Entry Module

This module allows the user to enter their daily diet details such as meal type, food items, and calorie intake. The entered data will be stored in the database and can be accessed anytime for reference.

3. Table Records Display Module

This module displays all the stored diet records in a tabular format. The user can easily view and verify the entered details, ensuring that their daily food intake information is properly maintained and organized.

CHAPTER 4

SAMPLE CODING

Sample 1: Database Connectivity with Java (JDBC)

```
import java.sql.*;

public class OracleConnect {

   public static void main(String[] args) {

      // Update your DB details

      String url = "jdbc:oracle:thin:@localhost:1521:xe";

      String username = "system";

      String password = "rec";


      try {

         // Step 1: Load the driver

         Class.forName("oracle.jdbc.driver.OracleDriver");

         // Step 2: Connect to DB

         Connection con = DriverManager.getConnection(url, username, password);

         System.out.println(" Connected to Oracle successfully!");


         // Step 3: Close connection

         con.close();

      } catch (Exception e) {
```

```
            e.printStackTrace();
        }
    }
}
```

Sample 2: Login Handler

```
static class LoginHandler implements HttpHandler {
        public void handle(HttpExchange ex) throws IOException {
            if (!"POST".equalsIgnoreCase(ex.getRequestMethod())) {
respond(ex,405,"Method Not Allowed"); return; }
            try {
                Map<String,String> f = parseForm(ex.getRequestBody());
                String username = f.getOrDefault("username","");
                String password = f.getOrDefault("password","");
                try (Connection c = DBConnection.getConnection()) {
                    PreparedStatement ps = c.prepareStatement(
                        "SELECT user_id FROM users WHERE username=? AND
password=?");
                    ps.setString(1, username);
                    ps.setString(2, password);
                    ResultSet rs = ps.executeQuery();
                    if (rs.next()) respond(ex,200,"SUCCESS:" + rs.getInt(1));
                    else respond(ex,200,"FAIL");
                } catch (SQLException e) { respond(ex,500,"DB_ERROR: " +
e.getMessage()); }
```

```
        } catch (Exception e) { respond(ex,500,"SERVER_ERROR: " +
e.getMessage()); }

    }

  }
```

Sample 3: Save User Details

```
static class SaveUserHandler implements HttpHandler {

    public void handle(HttpExchange ex) throws IOException {

        if (!"POST".equalsIgnoreCase(ex.getRequestMethod())) {
respond(ex,405,"Method Not Allowed"); return; }

        try {

            Map<String,String> f = parseForm(ex.getRequestBody());

            String username = f.get("username");

            String password = f.get("password");

            String gender = f.getOrDefault("gender","");

            int age = parseIntSafe(f.get("age"));

            double weight = parseDoubleSafe(f.get("weight"));

            double height = parseDoubleSafe(f.get("height"));

            String goal = f.getOrDefault("goal","");



            try (Connection c = DBConnection.getConnection()) {

                PreparedStatement ps = c.prepareStatement(

                    "INSERT INTO users (user_id, username, password, gender, age,
weight, height, goal) " +
```

```
                    "VALUES ((SELECT NVL(MAX(user_id),0)+1 FROM users), ?, ?,
?, ?, ?, ?, ?)");

                ps.setString(1, username);

                ps.setString(2, password);

                ps.setString(3, gender);

                ps.setInt(4, age);

                ps.setDouble(5, weight);

                ps.setDouble(6, height);

                ps.setString(7, goal);

                ps.executeUpdate();



                PreparedStatement ps2 = c.prepareStatement("SELECT user_id FROM
users WHERE username=?");

                ps2.setString(1, username);

                ResultSet rs = ps2.executeQuery();

                if (rs.next()) respond(ex,200,"SUCCESS:" + rs.getInt(1));

                else respond(ex,500,"CREATE_FAILED");

            } catch (SQLException e) { respond(ex,500,"DB_ERROR: " +
e.getMessage()); }

        } catch (Exception e) { respond(ex,500,"SERVER_ERROR: " +
e.getMessage()); }

    }

}
```

CHAPTER 5

SCREEN SHOTS

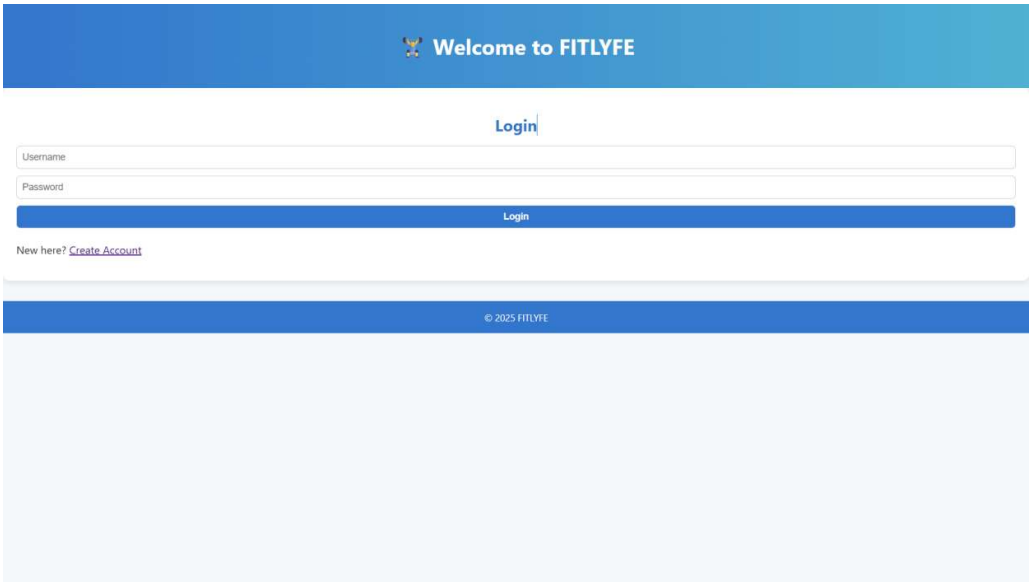

Fig 5.1 Login page

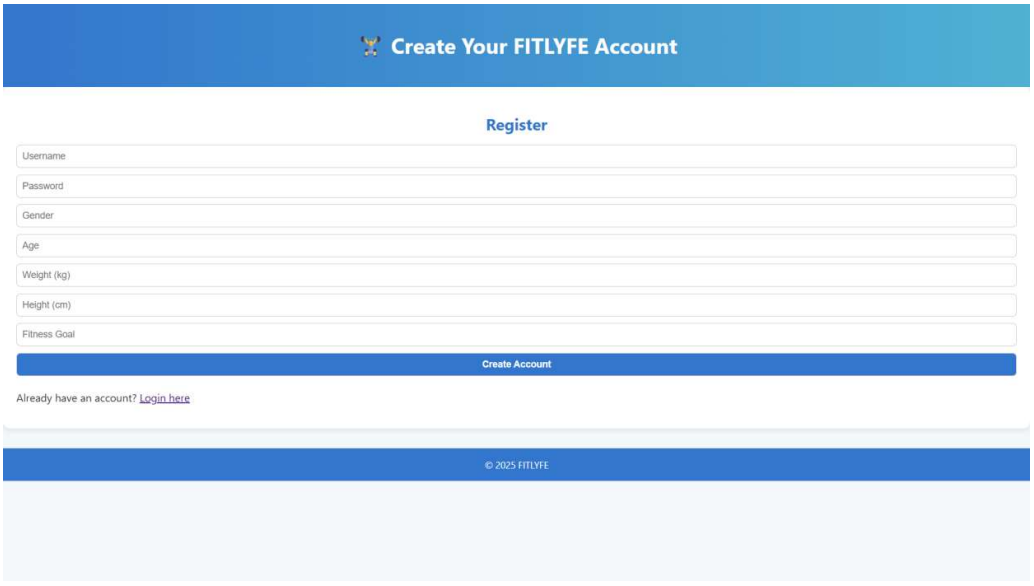

Fig 5.2 Create Account

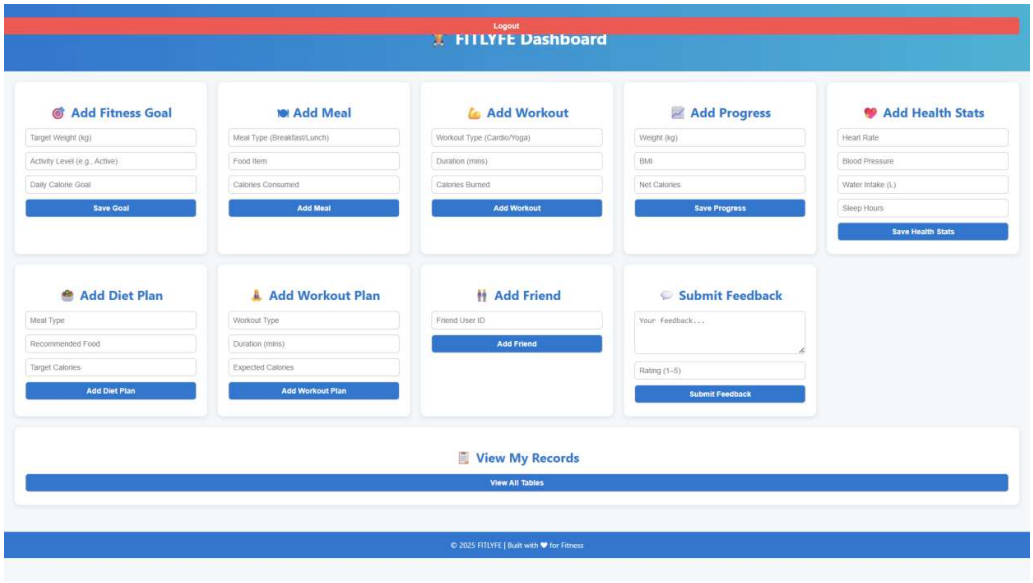

Fig 5.3 Interface

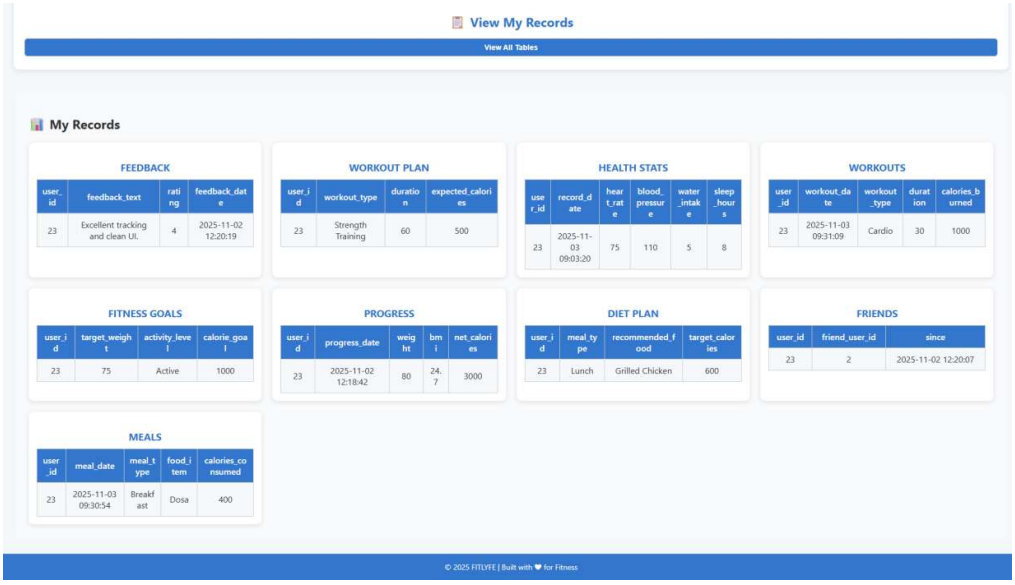

Fig 5.4 Customer's Details

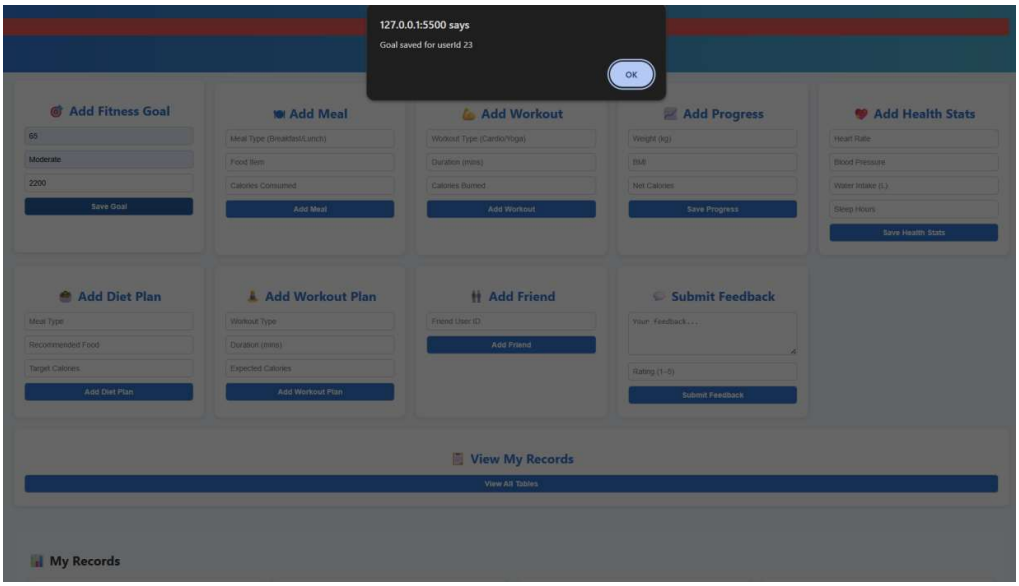

Fig 5.5 Update Customer's Details

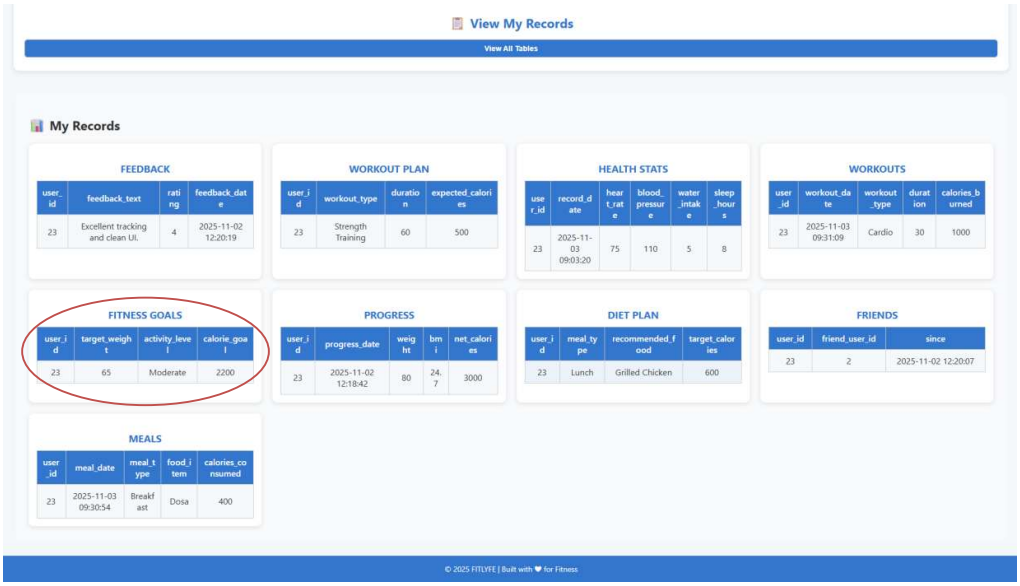

Fig 5.6 Updated Customer Details

CHAPTER 6

CONCLUSION AND FUTURE ENHANCEMENT

The **FITLYFE** Fitness and Diet Tracking System effectively integrates HTML, CSS, JavaScript, Java, and Oracle Database to help users manage their health goals. It allows users to register, log in, set fitness goals, record meals, workouts, progress, and view health statistics through an interactive dashboard. The system promotes healthy living through data-driven insights.

In the future, FITLYFE can be enhanced with mobile app support, AI-based diet and workout recommendations, real-time charts, wearable device integration, and cloud deployment. These improvements would make it more accessible, intelligent, and user-friendly, evolving into a complete digital fitness companion.

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