

ACTIVE LIFE

A MINI-PROJECT REPORT

Submitted by

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BONAFIDE CERTIFICATE

Certified that this project "**ACTIVE LIFE**" is the bonafide work of "**SHREENIDHI T & SONASREE P**" who carried out the project work under my supervision.

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INTERNAL EXAMINER

EXTERNAL EXAMINER

ABSTRACT

The "Active Life" project is a user-centric health and wellness application that enables users to track personal health data, receive personalized diet/workout plans, and maintain a digital profile. The application integrates a Java Swing GUI with MySQL backend, demonstrating database management, form-based input, and dynamic content delivery. The backend ensures accurate, secure storage and retrieval of user data, promoting healthy lifestyle management through technology.

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TABLE OF CONTENTS

CHAPTER NO	TITLE	PAGE NO
1	INTRODUCTION	7
1.1	INTRODUCTION	7
1.2	SCOPE OF THE WORK	7
1.3	PROBLEM STATEMENT	7
1.4	AIM AND OBJECTIVES OF THE PROJECT	7
2	SYSTEM SPECIFICATIONS	8
2.1	HARDWARE SPECIFICATIONS	8
2.2	SOFTWARE SPECIFICATIONS	8
3	MODULE DESCRIPTION	9
4	CODING	10
5	SCREENSHOTS	14
6	CONCLUSION AND FUTURE ENHANCEMENT	19
7	REFERENCES	20

LIST of figures

FIGURE NO	TITLE	PAGE NO
5.1	LOGIN PAGE	13
5.2	HOME PAGE	13
5.3	BMI CALCULATOR	14
5.4	DIET CHART	15
5.5	WORKOUT PLANS	16
5.6	DATABASE CREATION	17

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION:

Active Life is a health and fitness app that helps users track personal health details and get customized diet and workout plans. It uses a simple Java interface and a MySQL database for secure data storage. The system encourages healthy living for all users

1.2 SCOPE OF THE WORK

This project helps users manage their health goals by generating diet and workout plans tailored to their specific needs. It is suitable for anyone wanting to improve or monitor fitness and overall well-being.

1.3 PROBLEM STATEMENT

Many people struggle to find reliable, personalized health advice and ways to track their progress. Active Life solves this by offering easy, personalized planning and health tracking all in one place.

1.4 AIM AND OBJECTIVES OF THE PROJECT

The aim is to support users in managing their health through personalized advice and record keeping. The system provides custom diet/workout plans, profile management, and demonstrates practical use of a database with a modern frontend.

CHAPTER 2

SYSTEM SPECIFICATIONS

2.1 HARDWARE SPECIFICATIONS

Component	Specification
Processor	Intel i3/i5 (Minimum)
Memory Size	4GB RAM (Minimum)
HDD	500GB (Minimum)

2.2 SOFTWARE SPECIFICATIONS

Component	Specification
Operating System	Windows 10 / Linux
Front-End	Java (Swing)
Back-End	MySQL
Language Used	Java, SQL
IDE	IntelliJ IDEA / Eclipse
JDBC Connector	mysql-connector-java.jar

CHAPTER 3

MODULE DESCRIPTION

This application includes two main modules—Admin and User. On startup, the application shows a login window where the user selects their role and proceeds with personalized functions.

1. Admin Login:

The Admin logs in using a secure username and password. Admins have special access to view, update, and manage all user health data in the database.

2. User Login:

Users can log in and enter their age, current health issues, and serious conditions. Based on the input, the app generates personalized diet and workout plans, helping each user easily track and improve their well-being.

CHAPTER 4

CODING

SAMPLE 1 : *shows the main page where the user enters their health data. On clicking "Submit", a simple dialog confirms the input and would then trigger plan generation and storage.*

```
import javax.swing.*;  
import java.awt.*;  
  
public class ActiveLifeApp {  
  
    public static void main(String[] args) {  
  
        JFrame frame = new JFrame("Active Life");  
  
        frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);  
        frame.setSize(600, 400);  
  
        // Labels and fields for user data  
  
        JLabel nameLabel = new JLabel("Name:");  
        JTextField nameField = new JTextField(20);  
  
        JLabel ageLabel = new JLabel("Age:");  
        JTextField ageField = new JTextField(20);  
  
        JLabel healthLabel = new JLabel("Current Health Issues:");  
        JTextField healthField = new JTextField(20);  
  
        JButton submitBtn = new JButton("Submit");  
  
        submitBtn.addActionListener(e -> {
```

```

String name = nameField.getText();

String age = ageField.getText();

String health = healthField.getText();

// Here you would call backend or DB code and generate plan

JOptionPane.showMessageDialog(frame,
    "Hello, " + name + "! Your plan is ready.",
    "Plan", JOptionPane.INFORMATION_MESSAGE);

});

JPanel panel = new JPanel();

panel.setLayout(new GridLayout(4, 2));

panel.add(nameLabel); panel.add(nameField);

panel.add(ageLabel); panel.add(ageField);

panel.add(healthLabel); panel.add(healthField);

panel.add(new JLabel()); panel.add(submitBtn);

frame.add(panel);

frame.setVisible(true);

}
}

}

```

SAMPL 2 : Demonstrates retrieving all saved user records from the database and printing names, ages, and health issues to the console for review or debugging.

```

import java.sql.*;

public class DBUtil {

    public static void displayAllUsers() {

```

```
try {  
  
    Connection conn = DriverManager.getConnection(  
        "jdbc:mysql://localhost:3306/active_life", "root", "yourpassword");  
  
    String query = "SELECT * FROM users";  
  
    Statement stmt = conn.createStatement();  
  
    ResultSet rs = stmt.executeQuery(query);  
  
    while(rs.next()){  
  
        System.out.println("Name: " + rs.getString("name") +  
            ", Age: " + rs.getInt("age") +  
            ", Health Issues: " + rs.getString("health_issues"));  
  
    }  
  
    conn.close();  
  
} catch(Exception e) {  
    e.printStackTrace();  
}  
  
}
```

CHAPTER 5

SCREENSHOTS

ActiveLife

Name:	<input type="text" value="Varun"/>
Age:	<input type="text" value="45"/>
Current Health Issues:	<input type="text" value="Heart attack"/>
Serious Conditions:	<input type="text" value="none"/>
<input type="button" value="Submit"/>	

FIG 5.1 : LOGIN PAGE

FIG 5.2 : HOME PAGE

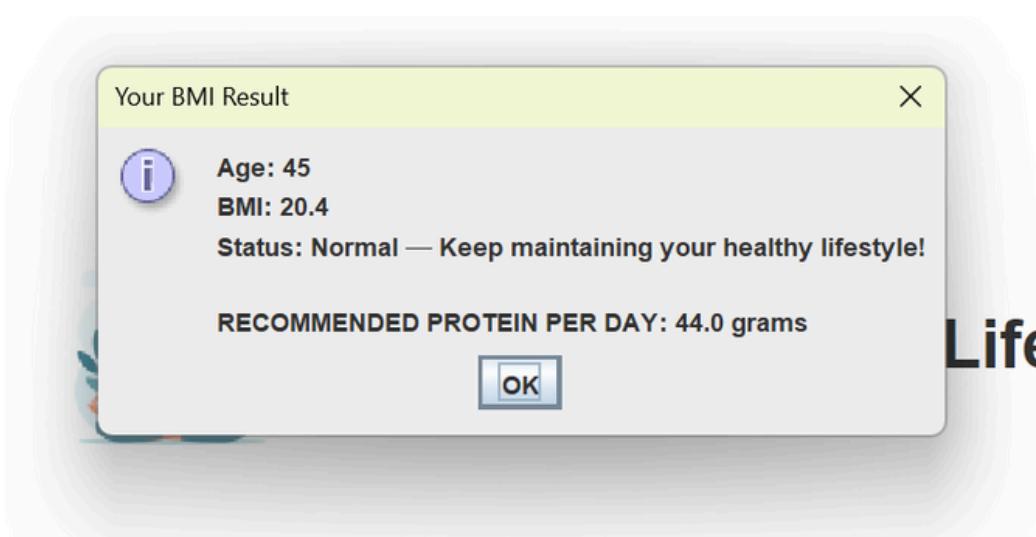
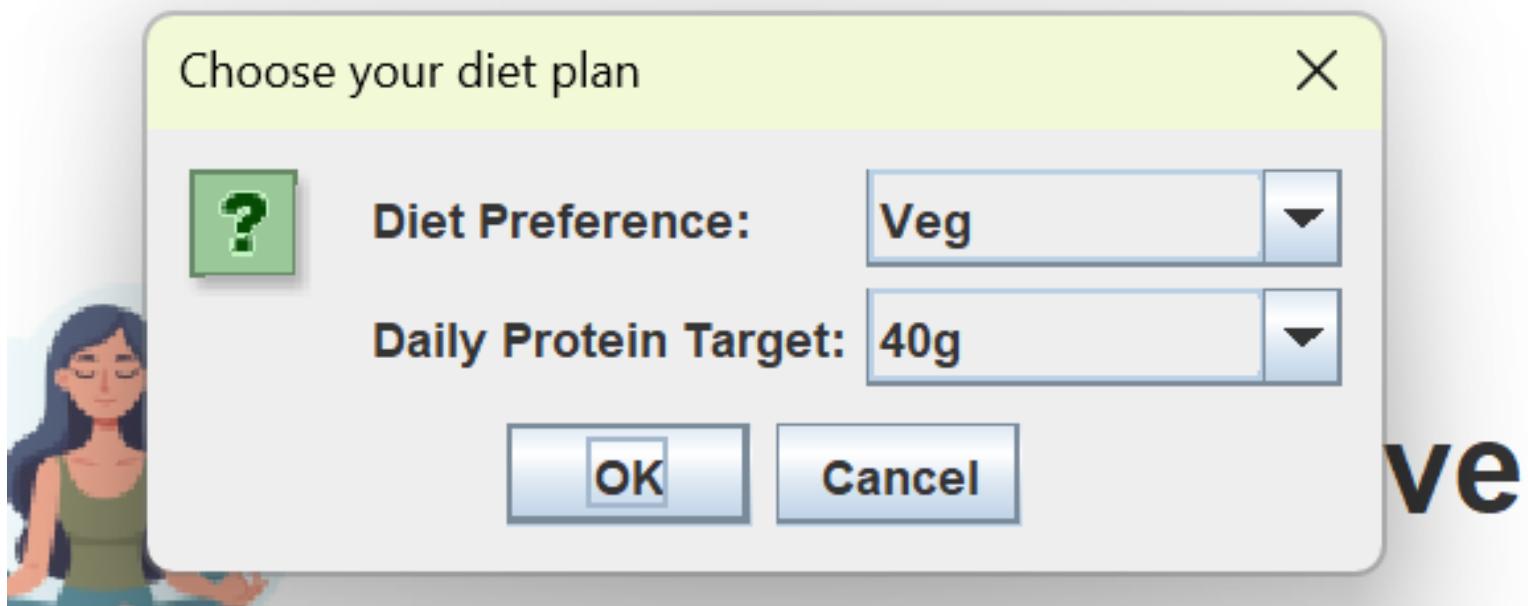


FIG 5.3 : BMI CALCULATION



Your Diet Plan X

i HEART ATTACK RECOVERY DIET (VEG)
Target Protein: 40g per day

Morning: Warm water + lemon + flax seeds
Oats porridge with skim milk & nuts
1 apple

Mid-Morning: Green tea + 2 crackers

Lunch: Brown rice/2 phulkas + moong dal
Stir-fried broccoli, carrots, peas
Fresh salad with lemon

Evening: Roasted chickpeas/unsalted nuts

FIG 5.4 : DIET CHART

The image shows a mobile application interface for a workout plan. At the top, a green header bar says "Choose Workout Plan" with a close button "X". Below it is a sub-header "Workout Type:" with a question mark icon. A dropdown menu is open, showing "Simple Workout" as the selected option, with other choices like "Cardio" and "Strength". There are "OK" and "Cancel" buttons. To the left is a small illustration of a woman meditating. The main content area has a yellow header "Your Workout Plan" with an info icon "i" and a close button "X". It displays a workout plan titled "HEART RECOVERY - SIMPLE (20 min, 4 days/week)". The plan includes the following exercises:

- March in place - 5 min
- Seated leg lifts x 10
- Calf raises x 15
- Breathing exercises - 5 min

Stop if chest pain occurs

At the bottom is an "OK" button.

FIG 5.5 : WORKOUT PLAN

The screenshot shows the MySQL Workbench interface with the following details:

- File Bar:** File, Edit, View, Query, Database, Server, Tools, Scripting, Help.
- Navigator:** Schemas, active_life, Tables, users (selected), Columns, Indexes, Foreign Keys, Triggers, Views, Stored Procedures, Functions.
- Query Editor:** Contains the SQL code for creating the 'users' table and a SELECT query to retrieve all rows.


```

5   id INT AUTO_INCREMENT PRIMARY KEY,
6   name VARCHAR(50),
7   age INT,
8   health_issues VARCHAR(200),
9   serious_conditions VARCHAR(250)
10  );
11 * SELECT * from users;
      
```
- Result Grid:** Displays the data returned by the SELECT query.

	id	name	age	health_issues	serious_conditions
1	ss	20	Iron Deficiency	e.g., Asthma 15 yrs, Surgery at 25	
2	shreya	20	, Iron Deficiency	none	
3	Ram	25	Diabetes	Asthma at 15yrs	
4	Varun	45	Heart attack	none	
*	NULL	NULL	NULL	NULL	NULL
- Information Panel:**
 - Table: users**
 - Columns:**

id	int AI
name	varchar
age	int
health_issues	varchar
serious_conditions	varchar
- Action Output:** Shows the history of actions taken on the table.

#	Time	Action	Message
1	05:14:23	SELECT * from users LIMIT 0, 1000	4 row(s) returned

FIG 5.6 : DATABASE

CHAPTER 6

CONCLUSION AND FUTURE ENHANCEMENT

Active Life helps users manage health information and receive personalized wellness plans easily. It streamlines health tracking and makes daily healthy choices simpler for everyone.

In the future, the app can add multi-language support and allow users to securely store hospital reports, so their records are always safe and accessible.

CHAPTER 7

REFERENCES

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