import javax.swing.\*;

import java.awt.event.ActionEvent;

import java.awt.event.ActionListener;

class User {

private String name;

private double weight;

private double height;

private int age;

public User(String name, double weight, double height) {

this.name = name;

this.weight = weight;

this.height = height;

this.age = 0; // Age is not used for BMI calculation

}

public double calculateBMI() {

double heightInMeters = height / 100;

return weight / (heightInMeters \* heightInMeters);

}

public void viewWorkoutPlan() {

String workoutPlan = "Your personalized workout plan:\n" +

"Monday: Chest and Triceps\n" +

"Tuesday: Back and Biceps\n" +

"Wednesday: Rest day\n" +

"Thursday: Legs and Shoulders\n" +

"Friday: Cardio and Abs\n" +

"Saturday: Rest day\n" +

"Sunday: Rest day";

JOptionPane.showMessageDialog(null, workoutPlan, "Workout Plan", JOptionPane.INFORMATION\_MESSAGE);

}

public void viewDietChart() {

String dietChart = "Your personalized diet chart:\n" +

"Breakfast: Oatmeal with fruits and a glass of milk\n" +

"Mid-Morning Snack: Greek yogurt with honey\n" +

"Lunch: Grilled chicken breast with brown rice and vegetables\n" +

"Afternoon Snack: Mixed nuts and a banana\n" +

"Dinner: Baked salmon with quinoa and steamed broccoli\n" +

"Before Bed: A glass of warm milk";

JOptionPane.showMessageDialog(null, dietChart, "Diet Chart", JOptionPane.INFORMATION\_MESSAGE);

}

}

class OnlinePersonalTrainingAssistant {

private JFrame frame;

private UserInterface userInterface;

private User currentUser;

public OnlinePersonalTrainingAssistant() {

frame = new JFrame("Personal Training Assistant");

frame.setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

userInterface = new UserInterface(this);

frame.add(userInterface);

frame.pack();

frame.setVisible(true);

}

public void authenticateUser(String name, double weight, double height) {

currentUser = new User(name, weight, height);

currentUser.calculateBMI();

showMainOptions();

}

public void showMainOptions() {

int choice = JOptionPane.showConfirmDialog(null,

"Choose an option:\nView Workout Plan\nView Diet Chart\nView BMI\n\nYour BMI: " + String.format("%.2f", currentUser.calculateBMI()),

"Main Menu", JOptionPane.YES\_NO\_OPTION);

if (choice == JOptionPane.YES\_OPTION) {

currentUser.viewWorkoutPlan();

} else if (choice == JOptionPane.NO\_OPTION) {

currentUser.viewDietChart();

}

}

public static void main(String[] args) {

SwingUtilities.invokeLater(() -> new OnlinePersonalTrainingAssistant());

}

}

class UserInterface extends JPanel {

private OnlinePersonalTrainingAssistant assistant;

private JButton authenticateButton;

public UserInterface(OnlinePersonalTrainingAssistant assistant) {

this.assistant = assistant;

authenticateButton = new JButton("Authenticate User");

authenticateButton.addActionListener(new ActionListener() {

@Override

public void actionPerformed(ActionEvent e) {

String name = JOptionPane.showInputDialog("Enter your name:");

double weight = Double.parseDouble(JOptionPane.showInputDialog("Enter your weight (kg):"));

double height = Double.parseDouble(JOptionPane.showInputDialog("Enter your height (cm):"));

assistant.authenticateUser(name, weight, height);

}

});

add(authenticateButton);

}

}