MINI PROJECT
RECEIPT RECOMMENDATION SYSTEM

Aim: To construct a database for the CalorieCalculator and connect it with my SQL using java.

Algorithm:

- 1. Data Collection
- Gather nutritional data for various food items, including calories, macronutrients (carbs, fats, proteins), and serving sizes. This can come from a food database or API (e.g., USDA, Open Food Facts).
- 2. User Input
- Collect user input on food items consumed, including the type of food, quantity, and serving size. Allow users to input multiple food items for a full meal or daily intake.
- 3. Food Lookup
- Look up the nutritional information for each food item entered by the user from the food database. Retrieve the calories and other nutritional data based on the quantity provided by the user.
- 4. Calculation of Total Calories
- Multiply the calories per serving of each food item by the user-specified serving size (if applicable). Sum the results to calculate the total calories for the meal or daily intake.
- 5. Macronutrient Breakdown
- Optionally, calculate the macronutrient breakdown (carbs, proteins, fats) by summing the corresponding macronutrient values for each food item. This will help users track not just total calories but also their nutritional balance.
- 6. Display Results
- Display the total calories, macronutrient breakdown (if calculated), and any additional information (e.g., suggested daily intake based on goals like weight loss or maintenance).

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PROGRAM:

```
import java.util.Scanner;

public class CalorieCalculator {
   public static void main(String[] args) {
      Scanner scanner = new Scanner(System.in);

      // Prompt the user for information
      System.out.println("Calorie Calculator");
      System.out.print("Enter your gender (M/F): ");
      String gender = scanner.nextLine();
      System.out.print("Enter your age: ");
      int age = scanner.nextInt();
      System.out.print("Enter your weight in kilograms: ");
      double weight = scanner.nextDouble();
      System.out.print("Enter your height in centimeters: ");
      double height = scanner.nextDouble();
      System.out.print("Enter your activity level (sedentary/moderate/active): ");
      String activityLevel = scanner.next();
      // Calculate BMR
      double bmr;
```

```
 if (gender.equalsIgnoreCase("M")) {
            bmr = Math.round(88.362 + (13.397 * weight) + (4.799 * height) - (5.677 * age));
        } else if (gender.equalsIgnoreCase("F")) {
            bmr = Math.round(447.593 + (9.247 * weight) + (3.098 * height) - (4.330 * age));
        } else {
            System.out.println("Invalid gender input.");
            return;
        }

        // Calculate daily calorie needs based on activity level
        double calorieNeeds;
        switch (activityLevel.toLowerCase()) {
            case "sedentary":
                calorieNeeds = Math.round(bmr * 1.2);
                break;
            case "moderate":
                calorieNeeds = Math.round(bmr * 1.55);
                break;
            case "active":
                calorieNeeds = Math.round(bmr * 1.725);
                break;
            default:
                System.out.println("Invalid activity level input.");
                return;
        }

        // Display the results
        System.out.println("Your Basal Metabolic Rate (BMR) is: " + (int) bmr + " calories per
day.");
        System.out.println("Your estimated daily calorie needs are: " + (int) calorieNeeds + "
calories per day.");

        scanner.close();
    }
}
```

OUTPUT:

```
Calorie Calculator
Enter your gender (M/F): M
Enter your age: 25
Enter your weight in kilograms: 70
Enter your height in centimeters: 175
Enter your activity level (sedentary/moderate/active): moderate
```

```
Your Basal Metabolic Rate (BMR) is: 1716 calories per day.
Your estimated daily calorie needs are: 2660 calories per day.
```

RESULT:

The database construction for the Receipt recommendation system has been successfullycomplected and connected with mySQL using java.