**Short Report on the Nutrition Tracker Application**

The Nutrition Tracker application is a Java Swing-based graphical user interface (GUI) program designed to help users manage their meals and nutritional information. The application allows users to add meals, view logged meals, plan meals for specific days, and access nutritional tips. The solution effectively combines object-oriented programming principles with a user-friendly interface, making it accessible for users to track their dietary habits.

**Problem Statement**

The initial problem was to create a console-based application that allows users to log meals and plan their dietary intake. The requirements included:

1. Adding meals with specific nutritional information (calories, protein, fat, carbohydrates).
2. Viewing all logged meals.
3. Planning meals for specific days of the week.
4. Displaying nutritional tips to promote healthy eating habits.

**Solution Approach**

The solution was implemented using the following components:

1. **Meal Class**:
   1. Represents a meal with attributes for name, calories, protein, fat, and carbohydrates.
   2. Includes a **toString** method for easy display of meal information.
2. **NutritionTracker Class**:
   1. Manages a list of meals and a meal planning system using a HashMap.
   2. Provides methods to add meals, view logged meals, plan meals for specific days, and display nutritional tips.
3. **HealthFood Class**:
   1. Extends **JFrame** to create the main application window.
   2. Contains a text area for output and a panel of buttons for user interaction.
   3. Implements action listeners for each button to handle user requests (adding meals, viewing meals, etc.).
4. **User Interaction**:
   1. Utilizes **JOptionPane** for input dialogs to gather meal information from users.
   2. Displays results and messages in a non-editable text area, enhancing user experience.

**Key Features**

1. **Meal Management**: Users can easily add meals with detailed nutritional information.
2. **Meal Planning**: Users can plan meals for specific days, allowing for better dietary organization.
3. **Nutritional Tips**: The application provides helpful tips to encourage healthy eating habits.
4. **User -Friendly Interface**: The GUI is intuitive, making it easy for users to navigate and perform actions.

**Conclusion**

The Nutrition Tracker application successfully addresses the problem of meal logging and planning through a well-structured GUI. By leveraging Java Swing for the interface and object-oriented programming for the underlying logic, the application provides a robust solution for users looking to manage their dietary intake effectively.

The following are some of screenshots that shows the running steps of the simple project of Nutrition Tracker Application:-











