Class 12 Computer Science Project

# Project Title: Enhanced Health Tracker – Daily Wellness Log

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## 1. About the Project

The Enhanced Health Tracker is a text-based Python project that helps users maintain a daily log of their wellness activities, including steps walked, water intake, sleep hours, and mood. The system saves daily entries in a text file and provides a weekly summary, motivational tips, and health insights based on personalized goals. It encourages students to work with text files and conditional logic while reinforcing good health habits.

## 2. Aim

To develop a Python program that records, analyzes, and summarizes daily wellness data using text file handling.

## 3. Objectives

- To practice Python file handling with text files  
- To apply conditional statements for feedback and goals  
- To track daily health metrics (steps, water, sleep, mood)  
- To generate weekly summaries with motivational messages  
- To create a user-friendly, menu-driven wellness logging system

## 4. Tools Used

• Python 3  
• Text File Handling  
• datetime module  
• Random module

## 5. Algorithm

Step 1: Prompt the user to enter daily health details (steps, water, sleep, mood)  
Step 2: Save the data with the current date in a text file  
Step 3: Provide an option to view records for a specific date  
Step 4: Summarize the last 7 days’ records (average steps, water, sleep)  
Step 5: Highlight best day for each metric and show motivational tips  
Step 6: Use conditional checks to compare with set health goals  
Step 7: Display tips or encouragement based on performance  
Step 8: Repeat until the user chooses to exit

## 6. Sample Output (Text Format)

--- Weekly Summary ---  
Days logged : 7  
Average Steps : 7728  
Average Water : 2.7 L  
Average Sleep : 7.1 Hrs  
Best Steps Day : 2025-06-02 (9100 steps)  
Best Water Day : 2025-06-07 (3.3 L)  
Best Sleep Day : 2025-06-02 (8 Hrs)  
✅ Great job! You're consistent!  
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## 7. Conclusion

The Enhanced Health Tracker project helped in applying Python file handling, conditional logic, and modular programming to solve a real-world problem. It promotes the idea of integrating personal wellness with technology while reinforcing programming skills.