

# ■ HealthMetrics — Fitness Data Analyzer

HealthMetrics — Fitness Data Analyzer is a web-based data analytics project that helps users analyze and visualize their fitness data such as daily steps, calories burned, and sleep duration. It provides a clear insight into daily and weekly health performance, helping users make informed lifestyle improvements.

## Required Tools & Technologies

- 1 HTML, CSS, and JavaScript for web dashboard UI
- 2 Chart.js for creating visual charts
- 3 Optional: Python (Pandas) for deeper data analytics
- 4 Sample health dataset (CSV or JSON)
- 5 Web browser for visualization

## Step-by-Step Project Process

- 1 1. Collect health data such as steps, calories, and sleep duration in a CSV or JSON file.
- 2 2. Create an HTML structure for the dashboard interface with sections for charts and summaries.
- 3 3. Use CSS to style the dashboard with clean, responsive design elements.
- 4 4. Use JavaScript to read the data and process it for analysis.
- 5 5. Implement Chart.js to create line and bar charts showing daily and weekly trends.
- 6 6. Add summary cards displaying average steps, calories burned, and sleep hours.
- 7 7. Implement conditional colors (e.g., green for improvement, red for decline).
- 8 8. Optionally connect with a Python backend using Flask for deeper insights and predictions.
- 9 9. Allow users to upload their fitness data file for real-time visualization.
- 10 10. Test and deploy the project locally or online for demo and presentation.

## Problem Solved

Many people track their fitness data but lack an easy way to visualize it. HealthMetrics solves this by providing a clear, visual, and interactive dashboard that helps users understand their fitness progress and stay motivated to improve their health habits.