

■ 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.