

Project Name: Live Location Tracker

Description: GeoTarget Live is a web-based GPS tracking application that displays a user's real-time location, direction, battery level, and distance to a custom target. Built with HTML, CSS, and JavaScript, and powered by Leaflet.js, it includes a dark mode toggle, an interactive map, and accurate direction indicators (North, South, East, West).

Approach: We used the Geolocation API to continuously track the user's latitude and longitude, and Leaflet.js to visualize movement on a map. The direction is derived from coordinate signs (e.g., positive latitude = North). We also implemented the Battery Status API for real-time battery display. The app supports setting target coordinates and calculates distance dynamically. To enhance usability and design, we added a dark mode toggle, GPS status indication, and responsive layout styling with Google Fonts.

Technologies Used: - HTML, CSS, JavaScript - Leaflet.js - Geolocation API - Battery Status API - Google Fonts

Learning Outcomes: - Real-time geolocation integration - Map rendering with Leaflet - Responsive UI development - Working with battery and GPS APIs - Combining sensor data with interactive features - User experience enhancements with dark mode and animation