

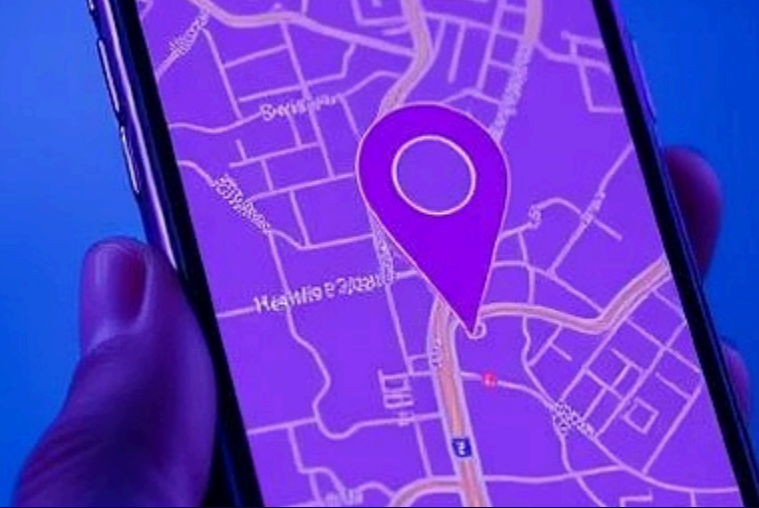


Geolocation API Hospital Quick

Enhance hospital booking with geolocation for faster, stress-free appointments.



by Joseph Nishimwe



What is Geolocation?

Definition

Identifies real-world location using GPS, Wi-Fi, IP, or cell signals.

Example

Phone maps or apps showing nearby hospitals use geolocation.

Purpose

Designed to solve hospital waiting and location problems efficiently.

Why This Feature Matters

Save Time

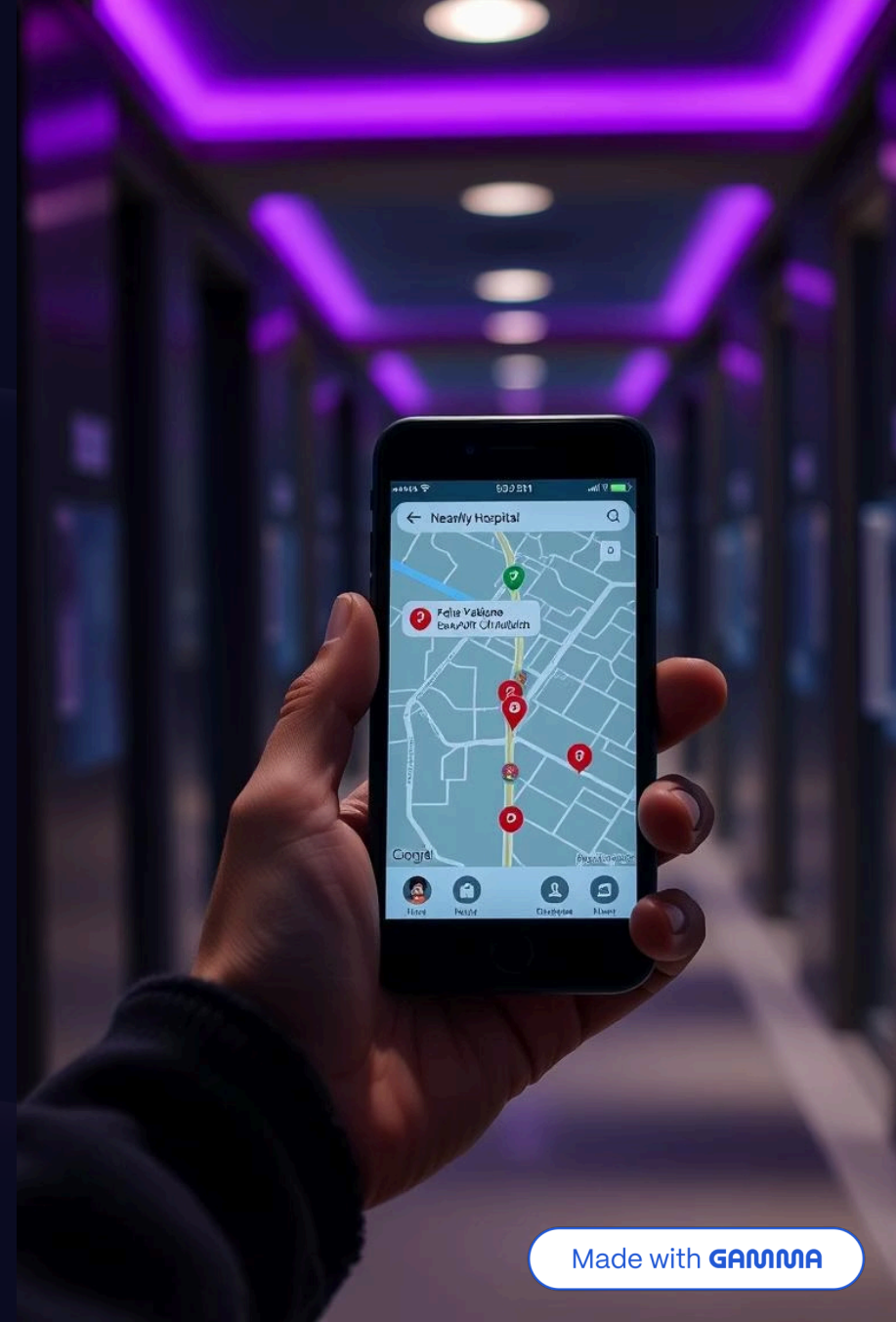
Find closest hospitals quickly without manual map checks.

Reduce Stress

Easy access to hospital distances helps urgent decisions.

User-Friendly

Transparent, fast, and convenient hospital selection process.



How It Works

User Location

System detects or user enters current location.

Hospital List

Displays hospitals with available slots and distance from user.

Distance Calculation

Uses Geolocation API and Map APIs to compute distances.

Implementation Tools & Libraries



Browser Geolocation API

Built-in, no installation needed for user location.



Google Maps API

Optional for maps, routes, and distance calculations.



Geolib Library

Simplifies distance math with fast, accurate functions.



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Distance Calculation Example

1

Get User Coordinates

Use navigator.geolocation.getCurrentPosition()

2

Store Hospital Coordinates

Save latitude and longitude for each hospital.

3

Calculate Distance

Apply Haversine formula or geolib functions.

4

Display Sorted List

Show hospitals by proximity with available slots.

User Flow Example

Step 1: Location Input

Auto-detect or manual entry with auto-complete.

Step 2: Hospital List

Hospitals sorted by distance and slots available.

Step 3: Booking

User selects hospital and confirms appointment.

Benefits Beyond Users

For Hospitals

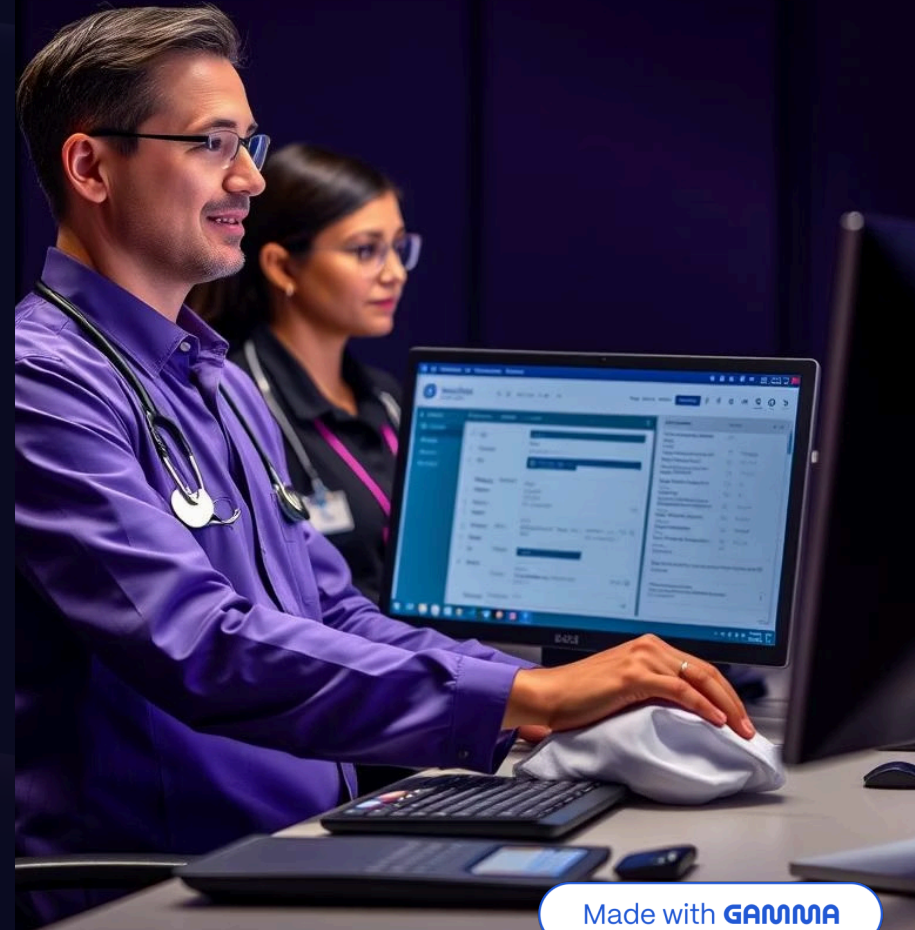
Reduces no-shows by helping patients pick closer options.

For Bolt.new

Boosts reputation as a smart, user-centric app.

Future Enhancements

Add directions, travel times, and traffic updates.



Project Overview & Resources

Project Structure

Modular Python app with geolocation logic and tests.

How to Run

Clone repo, install dependencies, run with npm or sudo if needed.

Author & Links

Developed by Joseph Nishimwe. GitHub: josep-prog

