🔹 Phase 1: Frontend Basics

Learn HTML, CSS, React.js.

Build a simple page with:

Login form.

Input fields (Source, Destination).

A Map component (Google Maps API integration).

🔹 Phase 2: Backend Basics

Learn Java + Spring Boot.

Build APIs:

/auth/login → JWT authentication.

/route → returns best route with traffic info.

Connect Spring Boot → MySQL.

🔹 Phase 3: Traffic & Routes

Learn Google Maps API.

In React, display a map and fetch route traffic levels.

Store results in MySQL for history.

🔹 Phase 4: Charts + Live Updates

Use Charts.js/ApexCharts to show:

Traffic level graph.

Route efficiency comparison.

Add WebSocket for real-time updates (e.g., “Traffic Jam Ahead 🚦”).

🔹 Phase 5: AI (Optional, Advanced)

Learn Python Flask (or Java ML).

Train a simple ML model to predict traffic from stored data.

Expose as API → Spring Boot calls Flask → React displays results.

🔹 Phase 6: Extras

Email alerts via SMTP.

More APIs if needed (weather data, accident alerts).

🚀 Suggested Learning Order

React + HTML/CSS basics (to make UI).

Spring Boot basics (APIs + MySQL).

Google Maps API (to show traffic & routes).

JWT authentication (secure login).

Charts.js/ApexCharts (traffic visualizations).

WebSockets (real-time traffic updates).

Flask ML model (optional) (traffic prediction).

SMTP/email alerts.