

Kasaragod to Kashmir Road Trip Planner

Submitted By: Divya B

1. Introduction

The “Road Trip Planner” is a web-based application designed to help travelers plan their journey effectively. The inspiration came from a classroom activity where we were asked to plan a road trip from Kasaragod to Kashmir. Later, our teacher encouraged us to create an app for the same.

Instead of manually coding everything, I used GitHub Copilot, an AI-powered code assistant, to generate and improve the code. I guided Copilot with prompts, accepted/refined its suggestions, and built the final app step by step.

2. Objective

The main goal of this project is to:

- Allow users to enter trip details such as start location, destination, number of people, available days, and food preference.
- Automatically calculate:
 - Distance
 - Estimated travel time
 - Recommended number of travel days (based on 8 hours driving per day)
- Provide travel advice, including:
 - Whether the trip is realistic within given days
 - Accommodation suggestions depending on group size
 - Food recommendations (Veg/Non-Veg)
- Display the route on a map using live geocoding (no hardcoding).

3. Technologies Used

- HTML, CSS → for structure and styling.
- JavaScript → for interactivity.
- Leaflet.js → for interactive maps.
- Leaflet Routing Machine → for plotting routes and calculating distance/time.
- Nominatim API (OpenStreetMap) → for converting city/place names into coordinates.
- GitHub Copilot → AI-powered coding assistant that generated much of the code based on prompts.

4. Features Implemented

1. User Input Form

- Start Location
- Destination
- Number of People (1–100)
- Days Available
- Food Preference (Veg/Non-Veg)

2. Interactive Map

- Route displayed between entered locations.
- Uses OpenStreetMap data.
- Automatically resizes correctly after loading.

3. Trip Summary

- Total Distance (in km).
- Estimated Time (in hours and minutes).
- Realistic Days Check (Green = possible, Red = not possible).

4. Group Accommodation Advice

- 1–3 people → Budget hotels / homestays.
- 4–10 people → Multiple hotel rooms.
- 11–30 people → Guest houses / serviced apartments.
- 31–100 people → Resorts, dormitory stays, and buses for travel.

5. Food Suggestions

- Veg: South Indian thalis, Gujarati thalis, North Indian vegetarian meals.
- Non-Veg: Seafood in Goa, Kebabs in Delhi, Butter Chicken in Punjab.

6. Clean Output

- No hardcoded cities → any city can be entered.
- Only shows map + summary (directions panel is hidden for clarity).

5. Workflow with GitHub Copilot

I used GitHub Copilot extensively while developing this project.

- I started by giving prompts such as “Create a form with start and destination fields”.
- Copilot suggested code, which I accepted and tested.
- Later, I refined prompts like “Add food preference dropdown (Veg/Non-Veg)” or “Hide the directions panel”.
- Copilot continuously improved my code and added features step by step.

Thus, this project is a combination of my ideas + GitHub Copilot assistance.

6. Advantages of the Project

- Easy to use for any trip planning (not limited to Kasaragod → Kashmir).
- Works with real-time geocoding (not just fixed coordinates).
- Gives custom advice for group size and food type.
- Demonstrates how AI tools like GitHub Copilot can accelerate development.

7. Limitations

- Requires internet connection (for map and geocoding API).
- Does not automatically suggest stopover cities yet (but can be extended).
- Travel time is estimated for driving only, not for trains/flights.

8. Future Enhancements

- Add automatic stopovers based on route.
- Suggest tourist attractions at stopovers.
- Provide budget estimation (fuel, stay, food).
- Add multi-day itinerary planning.

9. Conclusion

This project shows how AI-assisted coding (GitHub Copilot) can be effectively used to build a working web application quickly. It combines maps, user input, calculations, and travel advice to make road trip planning easier and more interactive.

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