Graph-Based Route Finder Web Application Exercise

Objective

Develop a web application using Flask or FastAPI that provides an API endpoint to process geographical coordinate inputs, finds the closest points within a predefined graph, computes the shortest path between these points, and returns the path to the client.

Optionally, generate a KML file representing this path and include it in the response.

Specifications

1. **Web Framework:** Choose either Flask or FastAPI.
2. **API Endpoint**: Implement a single **POST** endpoint which gets start point and end point.
3. **Graph Integration:** Utilize the provided JSON file.
4. **Closest Point Determination:** Find the closest vertex in the graph to each given point.
5. **Shortest Path Calculation:** Compute the shortest path.
6. **Response:** Return the calculated path.
7. **Code Clarity:** Aim for clarity and readability in your code.
8. **Submission:** Provide your source code and instructions.

Evaluation Criteria

- **Functionality:** The application meets all the specified requirements.
- **Code Quality:** The code is well-structured and easy to read.
- **Documentation:** Clear instructions on how to set up and run the application.
- **Bonus:** Implementation of the KML file generation.
- **Bonus:** Building simple UI.