Important Features to Implement

Core Functionality & Data Layers:

- **Elevation Data for Crossings:**
  - The application will display and analyze elevation data for key crossing points (e.g., railway, water, forest).
    - This data will be critical for route planning and infrastructure assessment.
- **Comprehensive Report Generation:**
    - All relevant parameters (attributes) from utility , road networks and elevation data will be incorporated into comprehensive report. This report will detail the suitability of proposed routes based on factors such as gradient, potential hazards associated with elevation changes.
- **Road Type Classification & Segregation:**
  - The road network will be dynamically classified and segregated by type (e.g., highway, arterial, local street, residential) in PostgreSQL and eventually on the app.
    - This allows for distinct visual styling and enables advanced analysis, such as filtering or routing based on road class.

User Interface & Experience Enhancements:

- **Smoothed Elevation Profile Visualization:**
    - For any selected route or path, the application will generate an elevation profile chart.
      - The profile will be algorithmically "smoothed" to provide a clean, readable representation of the terrain, removing data noise for better user interpretation.
- **Interactive Points of Interest (POIs):**
  - All POIs on the map will be fully interactive.
    - Users can click or tap on a POI to retrieve detailed information in a pop-up or side panel (e.g., name, elevation height... about the POI).