Milestone 2 GeoViz

Project Goal

Problem Statement: *How to choose a travel destination based on relevant and meaningful criteria?*

This project aims to build an **interactive world map** that helps users explore and compare countries based on multiple tourism-related dimensions :

- Tourist arrivals and hotel occupancy
- Average monthly temperatures
- Average expenditure per tourist
- Number of UNESCO World Heritage Sites
- Visa requirements

The tool is designed to help users make more informed, personalized, and sustainable travel choices. Countries will be color-coded according to selected filters, and clicking a country will display a panel with key insights. It will also include visual elements such as treemaps for alternative comparative views.

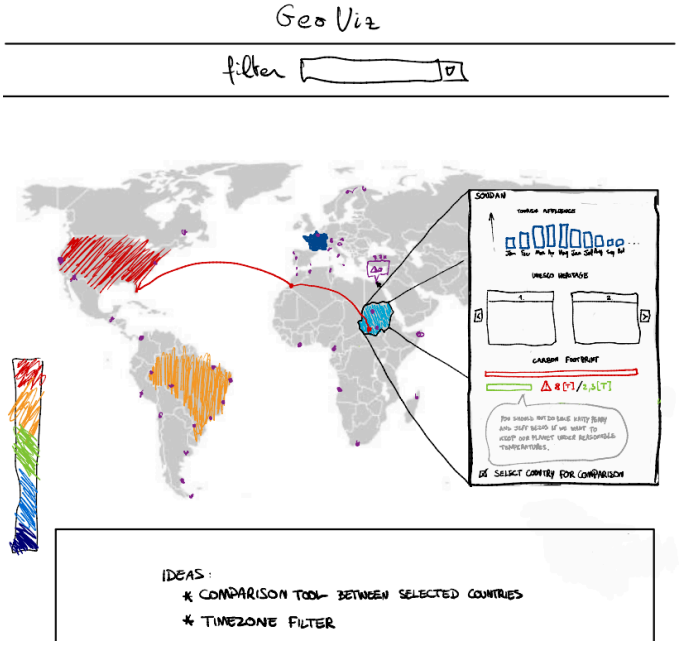
Tools & Technical Plan

Frontend: HTML + CSS + JavaScript

Data Processing: Python (Pandas, NumPy)

Visualization Libraries:

- D3.js for interactive maps and treemaps
- Leaflet for spatial data representation



Minimum Viable Product (MVP)

Core Visualization:

- An interactive world map
- Color-coded countries based on a chosen filter (e.g., expenditure, temperature)
- Clickable countries opening an info pane.

Basic Functionalities:

- Dropdown to switch between filters
- Search bar to quickly locate a country

Extra features:

- Carbon footprint calculator based on user's departure country (use of API)
- Treemap view: To compare countries on a single variable