# Requirements Document

## **Introduction**

This document outlines the functional and non-functional requirements for the **Travel Map Web Application**, a personal travel tracker and planner designed to help users document their past travels and plan future trips in an engaging and visually intuitive way.

The purpose of this document is to provide a structured overview of the application's features and capabilities, organized into prioritized categories using the **MoSCoW method** (Must, Should, Could, Won’t). This will serve as a foundation for development, design decisions, and feature planning, and is intended for use by developers, designers, and any collaborators involved in building the project.

The web app has two core experiences:

1. **Visited Map** – A digital travel journal where users can mark countries and places they’ve been to, add photos and memories, and visualize their global footprint.
2. **Wishlist Map** – A future trip planner where users can pin destinations they want to visit, research points of interest, and save notes, tags, and trip details.

This project aims to be a hands-on learning experience in web development and modern technologies (frontend, backend, API integration, user authentication, and map visualizations), while also offering meaningful value to users who love to travel, document, and plan their journeys.

## **Specific requirements**

### **🔐** Authentication & User Management

| **Priority** | **Requirement** |
| --- | --- |
| **Must** | Users must be able to log in via Google OAuth. |
| **Must** | User data must be stored securely and scoped per user. |
| **Should** | Display user avatar and name in the UI. |
| **Could** | Allow users to delete or export their data. |
| **Won’t** | Support for other login methods (email/password, Facebook) in initial version. |

### **🗺️** Map Interaction (Core Map Features)

| **Priority** | **Requirement** |
| --- | --- |
| **Must** | Display an interactive world map with visible country borders. |
| **Must** | Allow users to click on a country to unlock it (Visited Map) or add to Wishlist Map. |
| **Should** | Differentiate locked/unlocked countries via colors/styles. |
| **Should** | Zoom and pan functionality must be supported. |
| **Could** | Add route lines or heatmap overlays. |
| **Won’t** | Include 3D globe view in the first version. |

### **🌍** Visited Map / Past Trips

| **Priority** | **Requirement** |
| --- | --- |
| **Must** | Users can mark countries and cities they've visited. |
| **Must** | Users can drop pins on visited places and store trip details. |
| **Must** | Each visit can store date(s), companions, highlights, and notes. |
| **Should** | Users can upload photos or connect to Google Photos. |
| **Could** | Group cities/visits into “Trip Collections” (e.g., “Eurotrip 2023”). |
| **Could** | Display stats like number of countries, cities, continents visited. |
| **Won’t** | Automatically track visits via location history (privacy concerns). |

### 🎯 Wishlist Map / Future Trips

| **Priority** | **Requirement** |
| --- | --- |
| **Must** | Users can add countries/cities to a separate “Wishlist Map.” |
| **Must** | Users can create and edit future trips with basic info (name, dates, notes). |
| **Should** | Integrate Google Places API to add and save POIs per city. |
| **Should** | Allow users to add personal notes, tags, and "best time to visit" info. |
| **Could** | Display different statuses for trips (e.g., Draft, Planning, Booked). |
| **Could** | Enable conversion of a planned trip into a visited trip. |
| **Won’t** | Include itinerary planner with scheduling in the initial version. |

### 🏷️ Tags, Categories, and Filtering

| **Priority** | **Requirement** |
| --- | --- |
| **Must** | Users can tag trips (e.g., Food, Culture, Business). |
| **Should** | Tags should support filtering or searching across trips. |
| **Could** | Suggest common tags based on input or POIs. |
| **Won’t** | Include tag auto-categorization via AI in MVP. |

### 📸 Media & Content Handling

| **Priority** | **Requirement** |
| --- | --- |
| **Must** | Allow photo uploads per trip/visit. |
| **Should** | Connect and pull photos from Google Photos based on date/location. |
| **Could** | Display media in lightbox-style gallery or slideshow. |
| **Won’t** | Include video upload support initially. |

### Miscellaneous

| **Priority** | **Requirement** |
| --- | --- |
| **Must** | Users can view basic statistics: # countries, cities, continents. |
| **Must** | Responsive design for desktop and mobile views. |
| **Should** | Provide an end-of-year “Wrapped” summary with travel highlights. |
| **Should** | Toggle between Visited and Wishlist maps. |
| **Should** | Support for dark mode. |
| **Could** | Include travel heatmaps, most frequent cities, most photos taken, etc. |
| **Could** | Custom themes (e.g., color palette, map style). |
| **Could** | Allow users to share trip summaries or maps via public URLs. |
| **Could** | Collaborate on trips with other users (e.g., “My Partner’s Map”). |
| **Won’t** | Full social networking features (likes, comments) in MVP. |
| **Won’t** | Full UI skinning or user-designed themes initially. |
| **Won’t** | Benchmark travel stats against friends or global averages in MVP. |