# MongoDB Data Modeling – Hobby Travel MatchMaker

# 1. Introduction

The 'Hobby Travel Matchmaker' project is designed to personalize travel recommendations based on user hobbies, interests, and preferences. The backend is built using MongoDB, where data is modeled around users, destinations, events, and community interactions. The model supports scalability and efficiency in retrieving interest-matched data.

# 2. List of Collections and Purpose

• users – Stores information about each user including their name, age, hobbies, preferences, and travel style.

• destinations – Contains data about travel destinations, categorized by location, hobby relevance, and seasonality.

• workshops – Includes events, classes, or workshops tied to hobbies like photography, cooking, etc.

• hobby\_communities – Stores community and forum data where users can interact and plan hobby-based trips.

• itineraries – Holds user-generated or AI-generated travel plans based on multiple hobbies or trip pacing.

• badges – Tracks gamification elements like badges for completed experiences or achievements.

• matches – Contains user-destination or user-group matches based on preferences and hobbies.

• subscriptions – Handles premium access, curated plans, and exclusive hobby travel offers.

# 3. Embedding vs Referencing

The project uses a combination of embedding and referencing to optimize for performance and maintainability.  
• Embedding is used in collections like 'users', where hobbies and preferences are embedded directly for faster retrieval.  
• Referencing is used in collections like 'workshops' and 'hobby\_communities' to avoid duplication and allow scalability.

# 4. Design Justification

The database is designed to prioritize fast read operations, especially for travel recommendations and interest-based searches. Embedding user preferences avoids multiple lookups, while referencing helps manage independent entities like workshops and events.