Lab 1 - Product Description

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February 28, 2025

Version 1

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	Wise Traveler	TripAdvisor	Lonely Planet	Expedia	YouTube
AI assistance for planning and research	Yes	Yes	No	No	No
Safety Concerns (dangerous animal sightings, criminal activity, etc.)	Yes	No	Yes	No	No
Health Risks	Yes	No	Yes	No	No
Cultural Discovery	Yes	Yes	Yes	No	Yes
Local Customs	Yes	Yes	Yes	No	Yes
User Reviews	Yes	Yes	No	Yes	Yes
Centralized Information	Yes	Yes	Yes	No	No
Language translation tools	Yes	No	No	No	No

| Personalized Travel Recommendations | Yes | Yes | No | No | No |

1 Introduction

When people travel domestically or abroad, their main goals are enjoyment, discovering new cultures, and relaxation. In 2023, approximately 48.98 million U.S. residents ventured overseas (3). According to UN Tourism, international tourist arrivals hit 96% of pre-pandemic levels in January-July 2024; 790 million tourists traveled internationally in the first seven months of 2024, about 11% more than in 2023 (15). While travelers seek cultural immersion and authentic experiences, preparing for a safe, meaningful trip can be daunting. Travelers often have to search multiple sources of information, such as travel blogs, guidebooks, safety alerts, and government advisories. This information is usually incomplete, outdated, or superficial (paid reviews), leaving travelers with insufficient research on their destination. This lack of knowledge can expose them to law, safety, and health risks, diminishing their trip enjoyment. They may also encounter challenges like crime, unsafe water, poor sanitation, language barriers, and cultural differences, making finding help difficult. As a result, many stick to crowded, well-known spots or fall into tourist traps due to uncertainty about where to explore. That is where our product, WiseTraveler, comes in. WiseTraveler is a Centralized AI Travel Guide that provides a hassle-free, comprehensive experience, allowing travelers to focus on the journey without the stress of navigating multiple sources of information. It also encourages exploration beyond mainstream tourist spots, offering unique, culturally immersive experiences while keeping

travelers informed and safe. WiseTraveler consolidates all essential travel information so users can avoid juggling multiple sources of information, provides a map feature for discovering lesser-known spots and local events, and sends alerts for region-specific risks. WiseTraveler keeps travelers informed and delivers tailored suggestions for destinations, attractions, and activities based on user preferences, making trip planning more straightforward and personalized.

2   WiseTraveler Product Description

2.1. Key Product Features and Capabilities

Using WiseTraveler, users can access quick, concise guides on local laws and potential health risks for foreign visitors. They can understand the safety concerns and risks associated with the country they are visiting. They can read information about local wildlife and any harmful diseases that they might carry. Users will be able to see contact information to local medical centers and police stations.

Users will be able to better understand the customs and traditions of the country they are visiting. Users can share travel experiences and tips with other users. They can discover local tourist attractions. A feature to rate and review various attractions, restaurants, and hotels will be available. They will be able to see hidden gems and lesser-known spots that the destination has to offer. They can discover local events or activities that are occurring during their visit. The application will let people view user reviews and ratings for attractions, restaurants, and hotels. A map highlighting lesser-known spots for a truly unique and authentic travel experience will be given to customers.

2.2.   Major Components (Hardware/Software)

The hardware required for the development will be desktop computers. People can access WiseTraveler online. Users will use the web application. The web app will connect to the web servers. Databases will connect to the web servers as well.

The languages used will be HTML, Javascript, and CSS for frontend development. Back end will use Node.js and Express.js. The databases will be AWS and Amazon aurora. Testing will be done using Jest, Mocha and Chai, and Gitlab CI/CD. Third party software will be OpenAI API and Google Maps API.

3 Identification of Case Study Version 1

The customer base of our software will be people that are interested in enhancing their travel experiences. Some people will want to learn about new cultures. Also, people may want to better understand other countries. School students can use it when they want to study abroad. Some jobs will require people to travel for work which this app will be of use to them.

This product is being developed for helping people avoid risks when travelling. Also, the app will recommend destinations that are not well-known or tourist traps. For the case study, we will use a small family for testing. It will be a family of four who will take a vacation. They will use the application to travel to their desired location. For example, they are from the United States and want to travel to Paris. One of the features that will be used is displaying information about safety concerns in Paris. The family will be warned of any criminal activity and dangerous animal sightings. The family will speak English only. They will have difficulty understanding French, but our language translation tools will be helpful in this case. Another feature will inform the family of the local customs in Paris. User reviews will be about their destination, Paris, and can help them with making their decision.

We will gather data for all of the features of this product. Testing the AI assistance will be crucial as we will need to refine it until we achieve good results with the app. The team will want to prepare and avoid risks. The security will be tested to make sure that customers' data, such as names and phone numbers will be protected. The team will want to avoid legal action from customers. When conducting case studies, the team will take any feedback from testers. We will use this feedback to improve our product. We expect some features to be partially implemented during testing such as informing testers of safety concerns, health risks, or user reviews. The team expects people to ask if this app will keep customers' information safe from hackers.

Another question we should anticipate is if the information about the destination is accurate,

especially given the implementation of AI in our software.

5 Glossary

Centralized Platform: A single location within WiseTraveler where all essential travel information is consolidated, minimizing the need to access multiple sources.

Cultural Understanding: Information on local customs, traditions, and etiquette to foster respectful and immersive travel experiences.

Local Laws: Rules and regulations specific to a destination that may differ from those in travelers' home countries. WiseTraveler includes quick guides on local laws to help travelers avoid legal issues abroad.

Safety Concerns: Information about potential safety issues, such as high-crime areas or specific risks that travelers should be aware of when visiting new destinations.

Personal Health: Alerts and guidelines on health risks such as prevalent diseases or pests in specific regions, along with tips for staying healthy during travel.

Hidden Gems: Lesser-known attractions, destinations, and experiences that provide an authentic and unique insight into the culture and environment of a location.

Tourist Trap: An attraction that may be overly commercialized or lack authenticity, often with higher prices. WiseTraveler aims to help users avoid these in favor of more genuine experiences.

Real-Time Health and Safety Alerts: Notifications about region-specific health risks or other immediate dangers, helping travelers stay informed and safe.

Personalized Recommendations: Travel suggestions tailored to users' preferences and past selections, allowing for a more personalized and enjoyable trip.

User-Generated Content: Reviews, tips, and experiences shared by WiseTraveler users, enabling travelers to access authentic, community-based insights.

Itinerary Optimization: WiseTraveler's feature for organizing and scheduling destinations efficiently based on proximity and travel times, enhancing trip convenience.

Database Schema: The structured framework of data organization within WiseTraveler, including tables for users, locations, trips, events, and reviews, facilitating efficient data management.

Location Recommendation Algorithm: A feature to suggest destinations or spots based on user interests and travel history.

Trip Scheduling Algorithm: Logic that manages travel dates, allowing users to add locations to their itinerary.

Data Aggregation Algorithm: Collects and integrates travel data from multiple sources, including third-party APIs.

Itinerary Optimization Algorithm: Arranges locations by travel proximity and schedules them efficiently.

Legal Issues: Potential liability risks WiseTraveler may face if users rely on the app's advice and encounter problems such as illness or injury.

Misinformation: Incorrect or outdated information, which WiseTraveler aims to mitigate by regularly updating content and verifying user contributions.

Cultural Insensitivity: Risks of disrespectful behavior due to unfamiliarity with local customs; WiseTraveler includes guidance to ensure culturally sensitive travel experiences.

User Retention: The process of maintaining active users on WiseTraveler, involving regular updates and new feature releases.

Real-Time Emergency Assistance: WiseTraveler does not provide real-time emergency help; users are advised to contact local authorities in emergencies.

Legal Assistance: WiseTraveler does not offer legal advice or representation; travelers are encouraged to seek professional legal help if needed.

Medical Service: WiseTraveler does not provide medical care or advice; travelers are directed to local healthcare providers for medical issues.

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