

WanderTales: AI-Powered Travel Stories & Recommendations

Team Name: The WanderCoders

Dharani Thakkallapally (AI & NLP Engineer)

- Develop AI-based dynamic storytelling features using NLP models (Hugging Face, GPT-based models).
- Fine-tune pre-trained NLP models for travel-specific content generation.
- Implement algorithms for personalized travel recommendations.
- Ensure integration between AI-generated narratives and travel plans.

Skillset: Data Science, Machine learning, Deep learning, Python & Libraries, Cloud Platforms

Banu Teja Jampani (AI-Powered Recommendation Engineer)

- Design and implement the personalized recommendation engine based on user preferences and reviews.
- Utilize machine learning models or rule-based filtering to tailor travel plans.
- Ensure recommendations adapt dynamically to real-time factors (weather, delays).
- Document the project workflow, methodologies, and results.

Skillset: Data Science, Machine learning, Deep learning, Python & Libraries, Blockchain Technologies

Pavan Sundar Reddy Guthikonda (Backend & API Integration Developer)

- Design and implement the backend architecture using Flask/FastAPI.
- Integrate APIs (Google Places, OpenWeatherMap, Amadeus API, SerpAPI) to fetch real-time data.
- Develop RESTful APIs for frontend-backend communication.
- Manage local storage for user data and preferences.

Skillset: Data Science, Machine learning, Deep learning, Python & Libraries, Node JS, SQL Databases

Viswanth Tammana (Frontend Developer) (Team Lead)

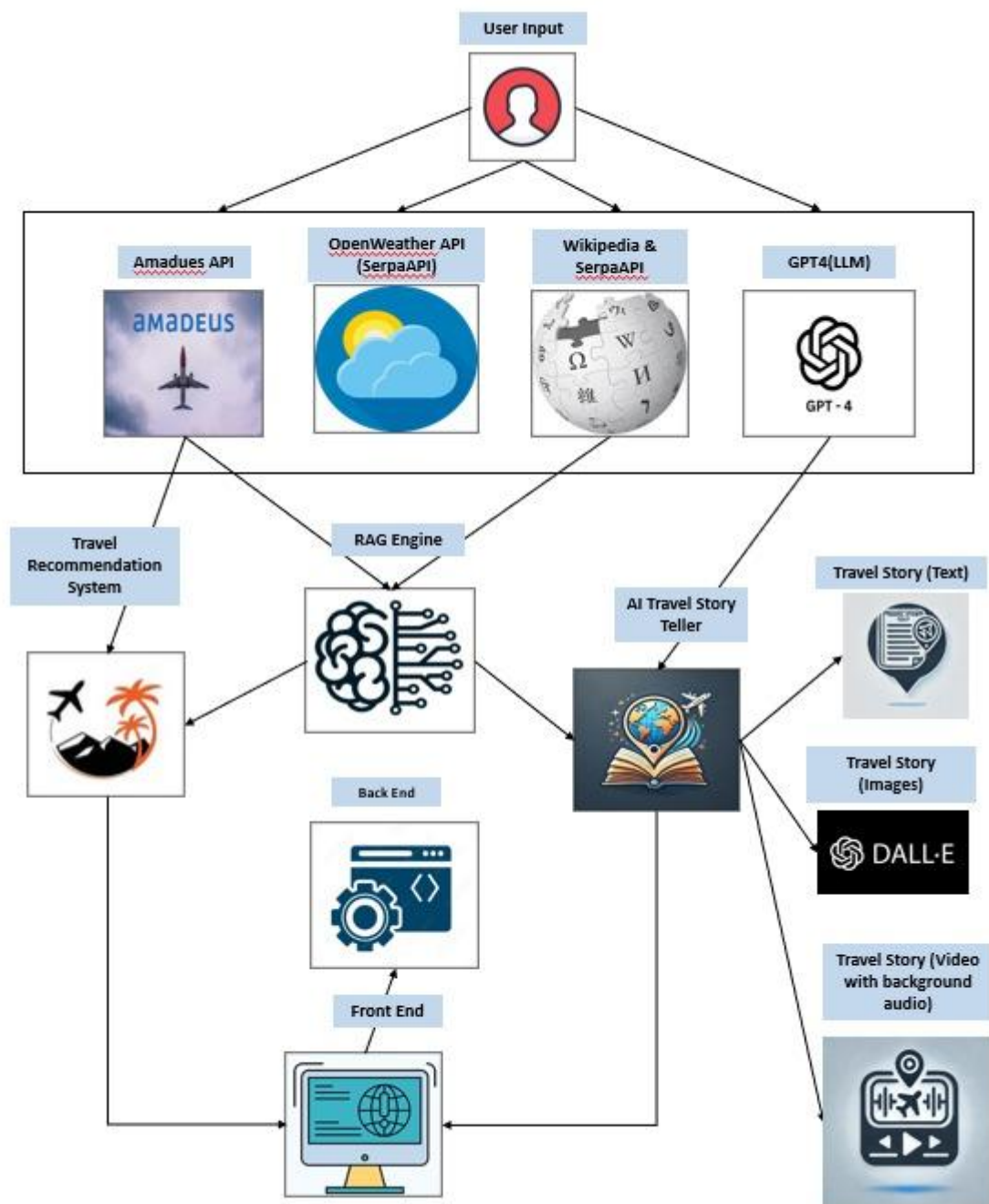
- Build an interactive user interface in Streamlit.
- Ensure smooth real-time updates from backend to frontend.
- Implement UI components for travel recommendations and dynamic storytelling.
- Work with Banu to properly display personalized recommendations in the UI.

Skillset: Data Science, Machine learning, Deep learning, Python & Libraries, React JS, REST API

Diagrams and Descriptions

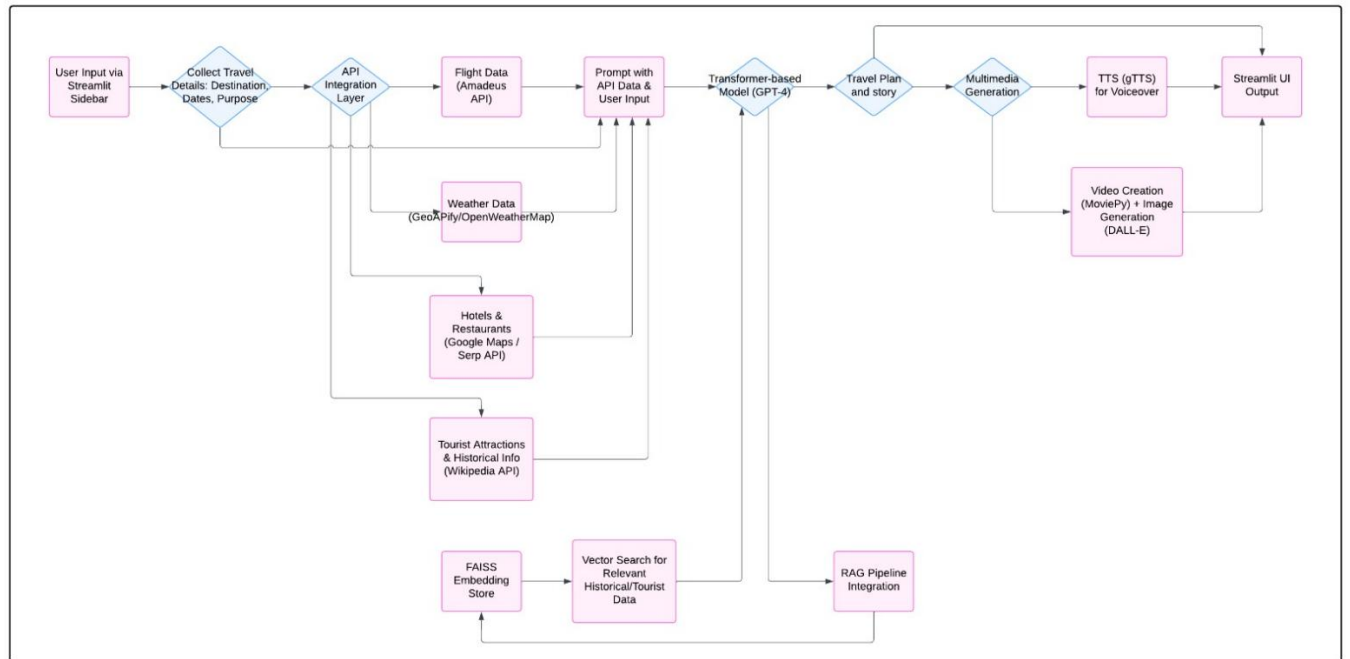
Architecture Diagram

The flow of the project begins with the user providing inputs, which are then passed to various APIs like Amadeus (flights), OpenWeather (weather), and Wikipedia/SerpaAPI (background info). Next, the aggregated data is fed to GPT-4 (LLM) and the RAG engine, which collaborate to generate a detailed travel story and recommendations. Finally, the AI outputs are enriched with images from DALL-E and compiled into a video with background audio, completing the travel planning architecture



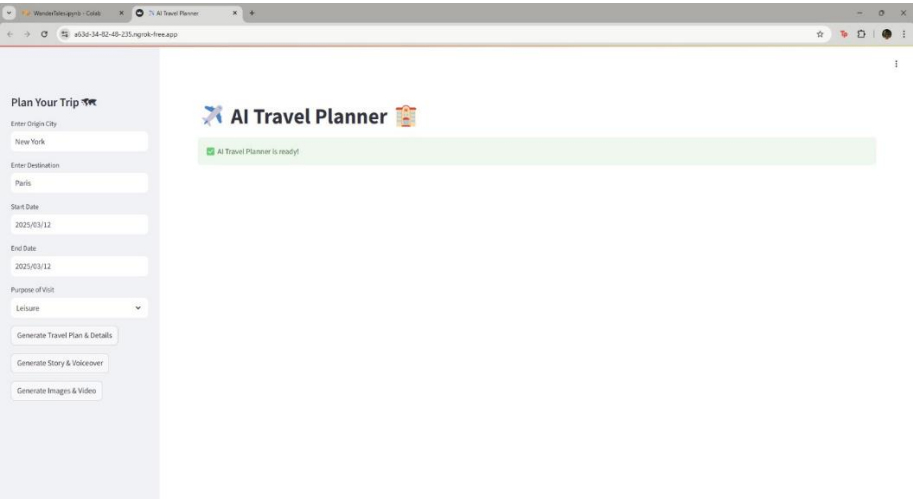
AI/ML Model Diagram

The flow of the project begins with user input through a Streamlit sidebar, which gathers trip details like destination and dates. This information, along with real-time data from flight, weather, and tourist APIs, is then fed into a GPT-4 based story generation module enhanced by a Retrieval-Augmented Generation (RAG) pipeline. Finally, the AI-produced travel story and multimedia elements are output to the user interface, providing a comprehensive and dynamic travel experience.

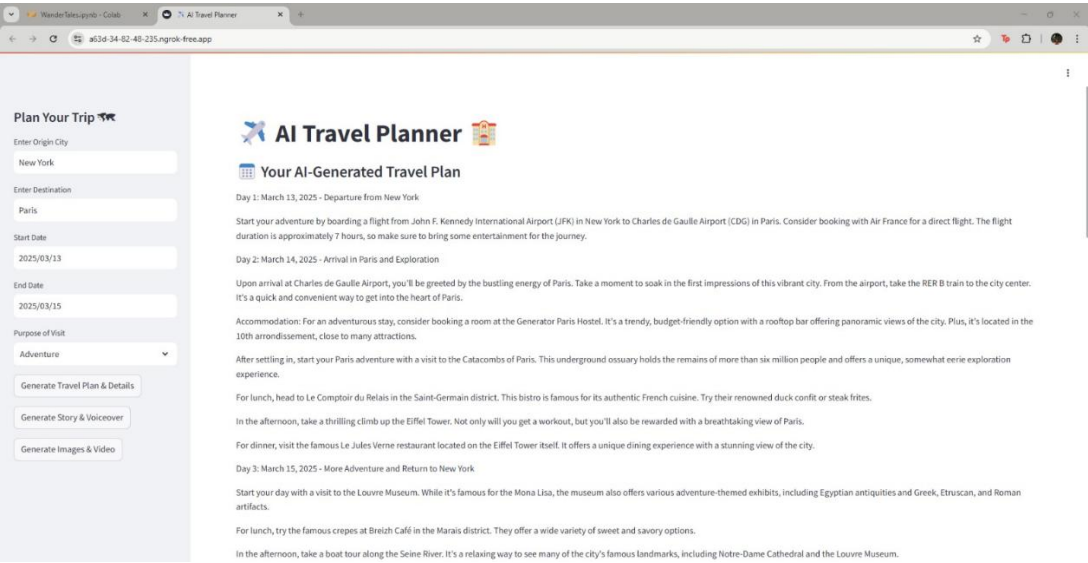


Application Interface (UI/UX) Wireframe

On the left sidebar, user gets the options to fill details like origin, destination, start date, end date and purpose of travel and user gets option to generate travel plan, travel story, images and videos.



Upon generating travel, a comprehensive plan is displayed to the user.



Travel story alongwith voice over

Plan Your Trip

Enter Origin City

New York

Enter Destination

Paris

Start Date

2025/03/13

End Date

2025/03/15

Purpose of Visit

Adventure

Generate Travel Plan & Details

Generate Story & Voiceover

Generate Images & Video

AI Travel Planner

Your AI-Generated Travel Story

The day was March 13, 2025, and the city of New York was buzzing with its usual energy. The sun was just beginning to rise, casting a warm, golden glow over the towering skyscrapers. I was at the John F. Kennedy International Airport, my heart filled with anticipation and excitement for the journey ahead. The airport was a hive of activity, with travelers from all walks of life embarking on their own unique journeys.

My flight was scheduled to depart at 8:00 AM. I checked in, passed through security, and found myself in the expansive departure lounge. The hum of conversation, the clinking of coffee cups, and the soft rustle of turning newspaper pages filled the air. I settled into a comfortable seat, watching planes take off and land against the backdrop of the rising sun.

The flight was a direct one, operated by Air France. The aircraft was a state-of-the-art Airbus A380, a marvel of modern aviation. The cabin was spacious and comfortable, with plush seats and a warm, inviting ambiance. The flight attendants were courteous and attentive, ensuring that every passenger's needs were met.

As the plane took off, I watched the New York skyline recede into the distance, replaced by the vast expanse of the Atlantic Ocean. The flight was smooth and uneventful, with the occasional patch of turbulence serving as a gentle reminder of the journey we were undertaking.

After a flight of approximately seven hours, the plane began its descent into Paris. The city unfolded beneath us, a sprawling tapestry of history and culture. The Eiffel Tower stood tall and proud, a beacon of iron and elegance against the Parisian skyline. The River Seine snaked its way through the city, its waters reflecting the golden hues of the setting sun.

Upon landing at Charles de Gaulle Airport, I was immediately struck by the distinct charm of Paris. The airport was bustling, yet there was a sense of calm and order that was uniquely Parisian. I collected my luggage and made my way to the exit, where a taxi was waiting to whisk me away to my hotel.

The drive through Paris was nothing short of magical. The city was alive with activity, yet there was a sense of tranquility that pervaded the air. The streets were lined with quaint cafes and boutiques, their windows aglow with warm, inviting light. The city's famous landmarks, such as the Louvre and Notre-Dame, were even more breathtaking in person.

The following days were spent exploring the city's many parks and gardens. The Jardin du Luxembourg was a particular highlight, with its manicured lawns and serene ponds providing a peaceful respite from the hustle and bustle of the city. The scent of blooming flowers filled the air, and the sound of birdsong provided a soothing soundtrack to my wanderings.

My visit to Paris was a journey of discovery and relaxation. The city's rich history, vibrant culture, and stunning architecture left an indelible impression on me. As I boarded my flight back to New York, I carried with me memories of a city that was as enchanting as it was inspiring. Paris, with its blend of old-world charm and modern sophistication, had truly captured my heart.

AI Voiceover

0:00 / 3:46

AI Travel Planner is ready!

Images of the destination according to the purpose of visit

Plan Your Trip

Enter Origin City

New York

Enter Destination

Paris

Start Date

2025/03/13

End Date

2025/03/15

Purpose of Visit

Adventure


Generate Travel Plan & Details

Generate Story & Voiceover

Generate Images & Video

AI Travel Planner

View Destination Images



Github Repo Link

https://github.com/pavan7357/WanderTales_Week7HandsOn

Future works

- We are able to generate a video with the images and voice over in the background, we need to display it in the UI and present it well.
- The application is running locally, we are currently facing few issues in deployment and shall rectify the errors as soon as possible.