



Team ID : T085
Team Name : Tech Crew
PS Number : PY091
PS Title : Personalized Travel Itinerary Generator
Domain : AI & ML
Category : Software



Problem Statement:

What problem are you solving?

- **Time Consuming Planning** – Researching destinations, finding the best routes scheduling activities can take hours or even days.
- **Lack of Personalization** – Travel guides don't cater to individual preferences. This generator can create plans based on the individual's interests and purpose.
- **Optimizing the Schedule** – Without proper planning, people might waste time on inefficient travel routes or miss must-visit spots.
- **Budget Constraints** – Travelers may overspend without proper budgeting.

Who is your target audience?

- **Casual Travelers** - Need easy-to-follow, time-efficient plans.
- **Budget Travelers & Backpackers** - Look for affordable travel options.
- **Culture & History Enthusiasts** - Want detailed insights about traditions, architecture, and past events
- **Solo & Wellness Travelers** - mood-based destination recommendations for self-care and mindfulness.
- **Group Travelers & Families** - Need itineraries that balance diverse interests.



Proposed Solution and overview:

- **How does your AI/ML solution address the problem?**
 1. **Automates planning** and **scheduling process**
 2. **Optimize time slots and distances.**
 3. This tool can provide **cost estimates** and suggest **budget-friendly alternatives**.
 4. Unexpected events (**weather, emergency, delays**) can disrupt plans. The tool can **offer real-time updates or alternative** suggestions.
 5. Provides **insights about the history , culture and the past** of each destination.
 6. Recommends **special take aways based on the popularity** from the particular place.
 7. Helps choose **destinations based on how people feel** (relaxing, adventurous, romantic, spiritual, etc.)
 8. Supports AI-driven recommendations **tailored to their mood**.
- **Briefly mention the AI/ML model or approach used.**

Personalized Recommendation System - Neural networks , matrix factorization

Fraud Detection and Security - Random Forest, Graph Neural Net



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Data And Model :

Data Sources: Where is the data from?

Google Maps API , Google Places API , Open Weather Map API , NOAA , User profile , Booking data, Google Dataset Search

Model:

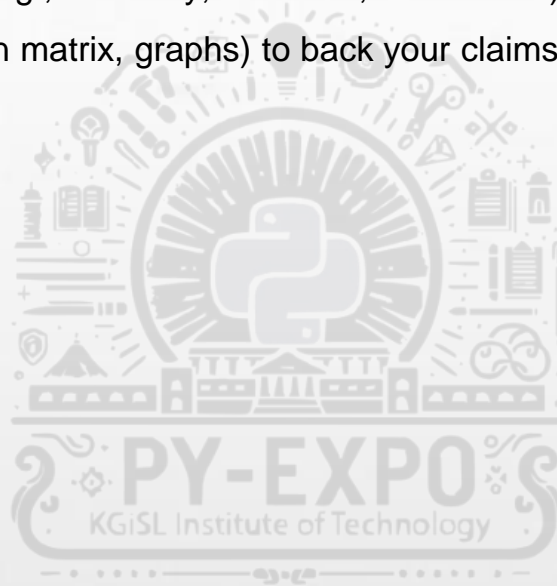
- **Hybrid Model** – Deep learning + filtering
- **Regression Model** – ARIMA , LSTMs
- **NLP , Transformer Model** – BERT , GPT
- **Graph Model** – GNNs

Tech Tools and Frameworks:

- **Programming Language:** Python
- **NLP Libraries:** NLTK, Transformers
- **Deep Learning Frameworks:** TensorFlow, PyTorch
- **APIs for Travel Data:** Google Maps API, Open Weather API,
- **Database:** MongoDB (for itinerary storage), PostgreSQL

Result & Evaluation:

- Show performance metrics (e.g., accuracy, F1-score, ROC curve).
- Visualizations (e.g., confusion matrix, graphs) to back your claims.



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Impact and Benefits:

TARGET AUDIENCE	IMPACT	BENEFIT	OVERALL ADVANTAGE
Solo Travelers	reduce anxiety of navigating unfamiliar places alone for travelers who may not be familiar with their destination.	solo travelers may feel more confident and empowered	Maximizes Time Efficiency
Families	Ensures that children and adults alike are engaged and satisfied.	It creates memorable experiences, with activities planned to suit every family member.	Improved Organization
Business Travelers	Ensures all meetings, travel, and downtime are planned, enabling a productive trip.	Provides sense of achievement	Reduced Stress
Cultural Explorers	Ensures the trip includes cultural experiences like local food, customs, and traditional events.	enhancing learning and understanding of the destination's heritage.	Safety and Security during peak seasons
Budget Travelers	avoid overspending by ensuring affordable options with no unnecessary costs	Save their money for experiencing all the must-see attractions, enjoying a fulfilling trip on a tight budget.	Cultural Insights and Preparation



Team Member Details:

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THANK YOU !

