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**TOPIC: WANDERLST-A PERSONALIZED TRAVEL  
PLANNING AND TRACKING APP**

**TEAM MEMBERS**

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# ABSTRACT

The project "Wanderlust: A Personalized Travel Planning and Tracking App" uses travelogues and community contributed photos from social media to generate a travel sequence for the user, along with this the e metadata (e.g: tags, geographical location, and date taken) mined from the phates is alte taken into account for a better response. The approach takes user's individual Point of Interest (eg. musumus, wildlife, historic sites, beaches, etc.) into consideration for travel recommendation rather than creating the itinerary based on only user's travel interest (eg. New York, Lav Vegas, Dubai, etc.) which most of the existing systems fail to provide. The project makes use of topical package space model which incorporates hash tags, travel cost spread, time of travel of each point of interest which is then mined to coalesce the gap between optimized travel routes and user's travel interest. The project uses two main types of social media viz. travelouge and community-contributed photos. For I a personalized topical p package model and an optimized route, mapping as user inputs with the mined data from ta from social media and with routes to the topical package queue is performed. Important and famous routes are given a rank according to the similarity between user package and route package in order in recommend a personalized point of interest sequence to the user. After processing, a route is selected frum top ranked routes to further optimize it according to socially similar users travel records, Representative images with other user's viewpoint and comments and reviews of Pols shown to offer a more detailed and wide- ranging impression. Our project provides recommendation on the basis of 60 thousand Flickr images uploaded by ample number of users and approximately 20,000 travelouges covering 450 travel Points in five famous cities, and show its effectiveness.

# INTRODUCTION

Nowadays, people are interested in travelling and searching for different location to travel planning according to these interests. Social media has come into as a medium to fillful the continues seeds foretumail travel recommendation. It offers great opportunities to as many challenging problems, process like GPS estimate near recommendation. Travelogue websites physically blog often rich de descriptions above land travelling-experience which are written by uses. These data are not only useful for determining Pola in points of immediate but gives an opportunity to recommend personalized navel Polis and routes and interest Examining the different types of social media data, GPS injection, check-in-data, geo tad blogs which are used for mining famous travel and routes [24] The system for foundation has which a saman m requirements. Permakud recommendation of travel system and location buned collaborative filtering zarihod in order to recommend the Pols and uptissid nas by masing 'sinvel hassary. In this mehed, social similar user on the location co-occurrence on of of previously p viated Pols and There Liben Pols are ranked according mapped based ig to the similar saorn aan travel history problema in automatic travel recommendation that needs dinanned when compared with station existing travel recommendation approach. Fint, the recommended POIs said he personalized to mer anst since differents may profer diffoount types of Pois [11][14] Second, important to recommend a quantial traveled route that in a sequence of Pois rather than POL. Exunag system on travel circummandation typically congrist of two problems. The find problem of the travel recommendation system focused in a tropical forest mining without considering other attributes like consumption capability of the same. And for the second public systems focuses more on a mining.

## **PROJECT DESCRIPTION**

Wanderlust is a personalized travel planning and tracking app designed to help users discover, plan, and record their travel experiences. This app aims to make the travel planning process easier by offering customized itineraries, recommendations based on preferences, and seamless organization of travel details. Additionally, Wanderlust will enable users to track their travels, document memories, and share their experiences with friends and family.

## **FUNCTIONALITIES**

### **1. Personalized Trip Recommendations**

Suggests destinations, activities, and accommodations based on user preferences, past travels, and current trends.

### **2. Itinerary Planning and Management**

Allows users to create, edit, and organize itineraries with dates, activities, and bookings all in one place.

### **3. Budget and Expense Tracking**

Let users set budget goals and track travel expenses by category, with spending alerts to stay within budget.

### **4. Interactive Travel Map**

Provides an interactive map to track visited places and mark future destinations. Users can explore city maps and view points of interest.

# **OBJECTIVES**

## **1. Simplify Travel Planning**

Make the travel planning experience smoother and more enjoyable with an all-in-one platform for recommendations, budgeting, and itinerary management.

## **2. Enhance Travel Organization**

Ensure travelers can access essential information (itineraries, documents, and checklists) easily and stay organized throughout their journey.

## **3. Foster Community and Inspiration**

Create a platform for sharing travel experiences, inspiring others, and building a community of passionate travelers.

## **4. Provide Tailored Travel Experiences**

- Create a personalized travel planning platform that recommends destinations, activities, accommodations, and experiences based on user preferences, past travel history, and current trends.

## **5. Seamless Itinerary Management**

- Allow users to build and manage comprehensive itineraries that include flight details, accommodation reservations, transportation options, activities, and dining, all in one place.

## **6. Real-time Travel Tracking**

- Offer live tracking features that allow users to track their travel progress, monitor flight statuses, receive notifications about changes or delays, and provide updates on local transportation options.

## PROPOSED SOLUTION

To mine travel atleast, a Topical Package Mining (TPM) has been used where the data is fetched from user attributed photos and travelogues: [12] extraction. [10] an inference of visiting me at a location but at the common capability marks point of interest (POI), so here the cases point of interest POI will be input to the topical package space model, and the system will return an optimized route for each day a personalized map to map the First, of 's go topical packages to get us topical attention is difficult to get consumption capability directly from the textual descriptions of phone [13] But the pictures in could somehow reflect these attributes. For example. If a user usually takes part in luxurious activities like Golf and Skiing, he is more likely to be rich. Our system computes user topical interest and the cost, time, season distribution of each topic to mine user's mobility capability, referred visiting time and season. After user package mining. Our system ranks famous places through measuring average package and routes package measured by the similarity of user packages travel records in then can be Social similar to Social Media Mining.

## TRAVEL SEQUENCE RECOMMENDATIONS

First step is to mine users POI with respect to travelogues and community-contributed photos. Once the mapping of the above said process is complete using topical package space algorithm, the system displays an optimized itinerary to the user, which ranges from day to day visits to a particular place for all age groups, to having a day freezed in case of an important meeting. Next step is to display the most optimized route by making are of greedy and kruskals algorithm. This includes day to day optimized route as well as what distance to coveThe Travel Sequence Recommendation feature in Wanderlust uses machine learning algorithms to suggest personalized travel itineraries based on users' preferences, interests, and travel history.

1. User Profiling: Users create profiles, providing information about their interests, budget, and travel stat.
2. Collaborative Filtering: The app uses collaborative filtering to identify patterns in user preferences and recommend destinations.
3. Sequence Generation: The algorithm generates a travel sequence based on the recommended destinations, considering factors like travel.

# TRAVEL PLANNING

## WANDERLUST

A PLANNING TOOL FOR GROUP TRAVEL  
PLAN TOGETHER + EXPERIENCE TOGETHER



**Stay on Course**  
Keep your group itinerary on an hourly, daily, or weekly basis. Add your favorite scheduled events and easily add events to specific times.

**What's Next?**  
Never run out of things to do. With built-in suggestions based on your current plan, you'll never have to ask, "What's Next?"

**Know whose doing what**  
Get your team plans? Stay together for evening activities during what and when you're not. This feature gives freedom and flexibility.

**Info at your Fingertips**  
Get a better idea of what you'll be experiencing by viewing additional information without leaving the App.

YOU'VE GOT YOUR GROUP AND EVERYONE WANTS DIFFERENT EXPERIENCES.  
WHO IS PLANNING WHAT?

"Sometimes traveling with friends is like herding cats."



"Researching is so much work!"



"I always have to beg to go to certain places. All I want is a good pasta."



"Do pets get a say?"



WANDERLUST MAKES GETTING ACQUAINTED EASY  
TO SPARK INTEREST AND INITIATE PLANNING.



**Hello New City**  
Visiting a new city can be stressful, but it should be fun! Wanderlust gives a quick intro of the character and personality of the city so you can be prepared.



FIND UNIQUE EXPERIENCES



# SOURCE CODE

```
import json
```

```
import os
```

```
class Trip:
```

```
    def __init__(self, destination, start_date, end_date):
```

```
        self.destination = destination
```

```
        self.start_date = start_date
```

```
        self.end_date = end_date
```

```
    def __str__(self):
```

```
        return f"Trip to {self.destination} from {self.start_date} to  
{self.end_date}"
```

```
class Wanderlust:
```

```
    def __init__(self):
```

```
        self.trips = []
```

```
        self.load_trips()
```

```
    def add_trip(self, destination, start_date, end_date):
```

```
        new_trip = Trip(destination, start_date, end_date)
```

```
        self.trips.append(new_trip)
```

```
        print(f"Trip added: {new_trip}")
```

```
    def view_trips(self):
```

```
    if not self.trips:
        print("No trips planned.")
    else:
        print("Your planned trips:")
        for index, trip in enumerate(self.trips, start=1):
            print(f"{index}. {trip}")

def delete_trip(self, trip_index):
    if 0 <= trip_index < len(self.trips):
        removed_trip=self.trips.pop(trip_index)
        print(f"Trip removed:{removed_trip}")
    else:
        print("Invalid trip index.")

def save_trips(self):
    with open('trips.json', 'w') as file:
        json.dump([trip._dict_ for trip in self.trips], file)
    print("Trips saved to trips.json")

def load_trips(self):
    if os.path.exists('trips.json'):
        with open('trips.json', 'r') as file:
            trips_data = json.load(file)
            self.trips = [Trip(**trip) for trip in trips_data]
```

```

        print("Trips loaded from trips.json")

def run(self):
    while True:
        print("\nWelcome to Wanderlust!")
        print("1. Add a Trip")
        print("2. View Trips")
        print("3. Delete a Trip")
        print("4. Save Trips")
        print("5. Exit")
        choice = input("Choose an option: ")

    if choice == '1':
        destination=input("Enterdestination: ")
        start_date = input("Enter start date (YYYY-MM-DD): ")
        end_date = input("Enter end date (YYYY-MM-DD): ")
        self.add_trip(destination, start_date, end_date)

    elif choice == '2':
        self.view_trips()

    elif choice == '3':
        self.view_trips()

        trip_index = int(input("Enter the trip number to delete: "))

```

```
        self.delete_trip(trip_index)

    elif choice == '4':

        self.save_trips()

    elif choice == '5':

        print("Goodbye!")

        break

    else:

        print("Invalid option, please try again.")

if __name__ == "__main__":

    wanderlust_app = Wanderlust()

    wanderlust_app.run()
```

# SCREEN SHOT

```
1 Welcome to Wanderlust!
2 1. Add a Trip
3 2. View Trips
4 3. Delete a Trip
5 4. Save Trips
6 5. Exit
7 Choose an option: 1
8 Enter destination: Paris
9 Enter start date (YYYY-MM-DD): 2023-12-01
10 Enter end date (YYYY-MM-DD): 2023-12-10
11 Trip added: Trip to Paris from 2023-12-01 to 2023-12-10
12
13 Welcome to Wanderlust!
14 1. Add a Trip
15 2. View Trips
16 3. Delete a Trip
17 4. Save Trips
18 5. Exit
19 Choose an option: 2
20 Your planned trips:
21 1. Trip to Paris from 2023-12-01 to 2023-12-10
22
```

# CONCLUSION

In this paper, our system presents a personalized travel itinerary recommendation system by implementing topical package model using data mining from social media: travelogues and community-contributed photos. The advantages of our work are that first, the system automatically mines user's topical preferences including the point of interest, 1. cost and time and secondly the recommendation is not only providing point of interest but also travel segment order, considering both the popularity and user's travel preferences at the same time. The system also provides user with flexibility to force a day or two for his or her personal working, meeting, conference, etc) and successfully managed to show the travel itinerary and hotel bookings for comfortable stay in a single framework. Our project mines and ranks famous routes based on the similarity between user and travel package and it then optimizes the top ranked famous routes according to social similar travel records thereby providing user with the most efficient and feasible route.

## **FUTURE SCOPE**

The current project gives user its own personalized travel itinerary based on his or her travel interests and point of interests along with hotel stay information. For future work, more type of data for mining user file test be used and also the system can provide new features which include providing ticket details for a more convenient tour planning. Also a more detailed input can be taken from the user, asking the user about its entering preferences and based on that the system can suggest restaurants near every point of interests. Other miscellaneous things such as, giving the user specific privileges to tailor the itinerary by removing or replacing a particular place in the trip, can be added in the future. As the web-surfing era is about to end, the website can be converted into faster and easily accessible smartphone application and expand the project by providing itineraries for every place in the world. Also the website can be made more secured and different attacks are prevented using techniques like CAPTCHA [19], Text image Ciphering [20] and Hybrid Key Distribution Systems [21]

# REFERENCES

- [1] Jiang, Shihai et al. "Personalized Travel Sequence Recommendation on Multi-Source Big Social Media, IEEE Transactions on Big Data 2.1 (2016), pp.43-56, 2016
- [2] S. Jiang, X. Qian, J. Shen, Y. Fu, and T. Mei "Author topic model based collaborative filtering for
- [3] personalized POI recommendation" IEEE Trans Multimedia, vol. 17, no. 6, pp. 907-916, Jun. 2015
- [4] J. Sang T. Mei J-T. Sum C. Xu, and S. Li, Probabilistic sequential Potts recommendation via check-in data, in 2012, 402-405 Proc. 20th Int. Conf. Adv. Geographic Information Syst
- [5] H. Huang and G. Gartner, "Using Trajectories for collaborative filtering-based Potts recommendation, Int. J. Data Mining, Modelling Manage, vol. 6, no. 4, pp. 333-346, 2014.
- [6] 1. Lam, 2. Huang, L. Chen, H. T. Shen, and Z. Yan, "Discovering areas of interest with geo-tagged images and check-ins." in Proc. 20th ACM Int. Conf. Multimedia, 2012, 509-518.