TRAVEL GUIDE- A PERSONALIZATION OF TRAVEL PACKAGE RECOMMENDATION SYSTEM

Dipali Kumbhar¹, Sagar Bendale², Shubham kore³, Seeta chandkote⁴ and Prof. Mayur akewar⁵

¹, ², ³, ⁴, ⁵ Department of Computer Engineering
RMD Sinhgad School of Engineering

Abstract- Today, the trip is an important part in human life but human are not exactly know about destination real condition. that are season, cost, timing and routes. the system can extract user useful information same user experience share various routes info to user also gives best time and season to user also gives cost of that system. There are two main challenges for automatic travel recommendation. First, the recommended POIs should be personalized to user interest since different users may prefer different types of POIs. Second, it is important to recommend a sequential travel route (i.e., a sequence of POIs) rather than individual POI.

Keywords- Travel recommendation, GPS, NaiveBaye, classification, content filtering

I. INTRODUCTION

Today travelling is very important thing in human life for enjoyment purpose. We can found the travelling detail on various websites different kind of information like images, location etc. there are various system that used to find travelling spot. Information is stored in different websites suppose for finding routes use map information about that location stored in another Website. In today some website and application give information but some time it is not updated or not found and it does find the exact location and not found all information about that location. Also it does not show GPS route from user current location to destination location. In previous system it will shows only information about searching location does not recommend to user.

To overcome the problems of searching only one location and shows limited information, the application consist of travel package recommendation system in which we design application for searching exact route from user current location and recommend to user about search related location it will easily give information to user also using GPS facility get various routes in that particular location. it will also recommend as per the user interest.

Different user have different point of interest for travelling in city there are various system that give user travelling information user will not get all information at one system it will not give all information at a time. To reduce that design a system for give all information in one system and it will also personalize the system for user.
In above figure we see system architecture it will give detail design of system it contain it contain different blocks Admin, Client and GUI in admin panel admin will have different permission to control user database will used for storing data client terminal we will have user panel in which we generate map and route also we show recommended location and user review

II. LITERATURE REVIEW

Personalization is one of system that will give user various type of information access of other user personalization is based on user point of interest in [1], using the GPS trajectories generated by multiple users. they mined interesting locations and classical travel sequences within a given geospatial region. they consider an individual’s visit to a location as a link from the individual to the location, and map this links in terms of the users travel experiences in various regions.[1] this method mines the shared check-in patterns for users from different regions and then utilizes the shared patterns to further explore more similar user across regions. user can transfer knowledge across regions to recommend for an user in a new region[2]

The new solution is simple and fast the given solution improves accuracy from 48% for a traditional BOW solution to 60%, while maintaining the same processing time [3] Our experimental results demonstrate the significance it would be interesting to investigate the recommendation effect of content information compared to other information, such as spatial, temporal, or social information[4] they focus on the problem of time-aware POI recommendation, which considers the temporal influence in user activities they for POI recommendation on the GTAG. or future it would be interesting to apply the proposed framework to time-aware recommendation in other tasks [5] Content based filtering is approach used for generating recommendation

They present a salient feature mining based approach to improve the performance of GPS location estimation Experiments demonstrate that our method out performs the classical and state-of-the-art method for image GPS estimation [6]

III. WORKING

In this system planned that terribly economical thanks to user for looking user interest locations. In system begin with admin login admin add locations then user sign up to system. it'll check user exit or not if user exist it'll offer access to homepage during this user rummage around for location. System checks user current location and provides path conjointly all info concerning location. In suggestation we have a tendency to recommend to user concerning similar location conjointly user see previous user reviews and conjointly add its own review in system can have 3 modules user interface, middleware , backend In user interface there ar map section, suggest section, review section. In middleware use totally different interfaces. In last backend we have a tendency to use naïve mathematician

In machine learning, naïve mathematician classifiers ar a family of straightforward probabilistic classifiers supported applying Bayes’ theorem with robust (naïve) independence assumptions between the options. Naive mathematician has been studied extensively since the 1950's. it had been introduced below a special name into the text retrieval community within the early 488 and remains a well-liked (baseline) technique for text categorization, the matter of decision making documents as happiness to 1 class or the opposite (such as spam or legitimate, sports or politics, etc.) with word frequencies because the options. With acceptable pre-processing, it's competitive during this domain with additional advanced ways together with support vector machines. It conjointly finds application in automatic diagnosing. Naive mathematician classifiers ar extremely ascendible, requiring variety of parameters linear within the number of variables (features/predictors) in a very learning downside. Maximum-likelihood coaching may be done by evaluating a closed-form expression, that takes linear time, instead of by pricy repetitive approximation as used for several alternative kinds of classifiers[7] In this paper we use Content-based filtering, also referred to as
cognitive filtering, recommends items based on a comparison between the content of the items and a user profile. The content of each item is represented as a set of descriptors or terms, typically the words that occur in a document. The user profile is represented with the same terms and built up by analyzing the content of items which have been seen by the user.

In this we use content based filtering approach for recommendation system it will give different types of approaches for classifying content based on user interest and recommend user according the user search content. Analyze user previous data according user need and generate recommendation based it is better than collaboration filtering. In collaborative we need many user to recommend about location it finds user interest based on same same use. In above diagram we see total flow of system as the system started the flow is going to registration or login in login there are two section user login and admin login admin has different permission to handled the user as user login into system user search for particular package that he want it can search package by name or city name as user see particular package.
It will generate recommendation based on user searching history calculate user activity based on user search and recommend user and user will see other user review and also add own review in the system. System will also show location on map and also routes from current location.

We use Naïve Bayes algorithm for classifying user interest and generate recommendation to user.

Steps for algorithm
1. Convert data sets into frequency table
2. Get all matching feature of user search
3. After that find category of user interest
4. Map it into category and its feature
5. Calculate probability using below formula
   \[ \text{Category} = \frac{\text{Matched category}}{\text{total category}} \times \text{feature} \]
   \[ \text{Features} = \frac{\text{Matched feature}}{\text{total feature}} \]
6. After calculating probability
7. Use Naïve Bayes equation to finding main category and its feature for classify user interest
   \[ \text{Probability for category and feature} = \frac{\text{category}}{\text{features}} \]
8. After that we generate recommendation to user

### IV. RESULT

| Point Of interest | User1 | User2 | User3 | User4 | User5 |
|-------------------|-------|-------|-------|-------|-------|
| Fort              | 0.6   | 0.2   | 0.1   | 0.3   | 0.2   |
| National park     | 0.2   | 0.7   | 0.3   | 0.6   | 0.7   |
| Beaches           | 0.3   | 0.1   | 0.3   | 0.4   | 0.5   |
| Waterfall         | 0.8   | 0.5   | 0.4   | 0.9   | 0.6   |

![Recommendation System](image-url)
IV. CONCLUSION

This application consists of travel package recommendation system in which we design an application for searching an exact route from the user's current location and recommend to the user about search-related location. It will easily give information to the user, and also using GPS facility, it will get the current location to the destination. It will also recommend as per the user's interest.

The system is very helpful to the user for easily showing various routes to the user and also recommend about various locations and give the user various information about that location. The user will see other user reviews and also add their own review.

V. FUTURE SCOPE

In the future, we increase the database and also combined the collaboration filtering and content filtering as hybrid filtering. We generate recommendation on a map for user help.

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Sagar Bendale studying BE computer engineering in RMD Sinhgad School of engineering. Interested in study data mining and Big data.
Dipali Kumbhar studying BE Computer
RMD Sinhgad School Of engineering
Interesting in study data mining and web technology

Shubham Kore studying BE computer
RMD Sinhgad School Of engineering
Interesting in study data mining and IOT

Seeta Chandkote studying BE computer
RMD Sinhgad School Of engineering
Interesting in study data mining