

# Personal Assistant with Voice for Tour Recommendation

Dahiwal Aishwarya<sup>1</sup>, Deokar Manasi<sup>2</sup>, Gadge Ankita<sup>3</sup>, Bangar Abhishek<sup>4</sup>

<sup>1</sup>Dahiwal Aishwarya Computer Engineering & Jaihind College of Engineering Kuran

<sup>2</sup>Deokar Manasi Computer Engineering & Jaihind College of Engineering Kuran

<sup>3</sup>Gadge Ankita Computer Engineering & Jaihind College of Engineering Kuran

<sup>4</sup>Bangar Abhishek Computer Engineering & Jaihind College of Engineering Kuran

\*\*\*

**Abstract** - When we want to organise a trip for holidays or a general visit today, we first seek assistance from travel agencies, and then we must arrange according to their recommendations. However, we are having some challenges as a result of this, therefore we have to revise or abandon the strategy. We'll use "Personal Assistant with Voice for Tour Recommendation" in this situation. In our system, we suggest a method in which the user specifies their vacation start and end dates, and the system then provides recommendations such as package cost, points based on season, timetable, hostels, and alternative packages. Tourists will filter based on their requirements.

**Key Words:** *Virtual Assistant, Tour Recommendation, User interest, KNN, K-Means, Social Network, Personal Interest.*

## 1. INTRODUCTION

With the widespread usage of mobile devices, location-aware social networks have emerged as new social communication tools and platforms with millions of users. More users are sharing their interests, which means they may be influenced by tourist resources when travelling to different locations, such as the popularity of the destination's POIs. When a user visits different places, his personalized interests are updated based on the tourism resources of those cities, so even though his history interest indicates that he is an outdoor enthusiast, he still has a strong desire to see other sections of the city based on his interests. As a result, rather than static constant learning from visiting history, the user's interests should be a dynamic vector in the context of the target area's tourism resources. Many products, such as cellphones, computers, and smart speakers, have voice assistants built in. Because of this wide range of integration, a number of virtual voice assistants exist that provide a very specific feature set and output as speech.

## 2. MOTIVATION

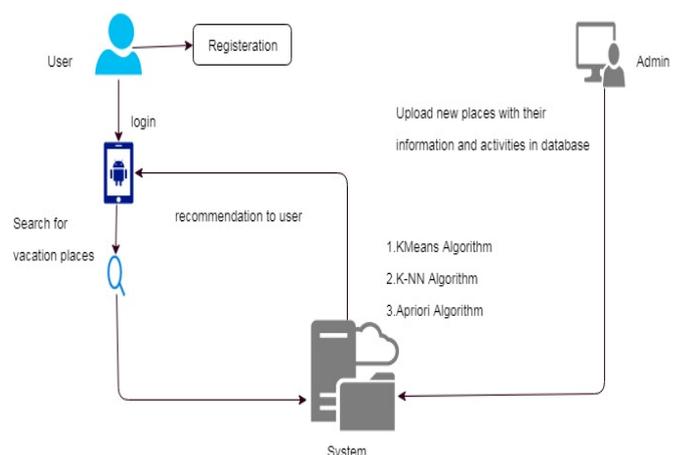
There are numerous websites and applications that offer a variety of different bundles. They do not, however, plan according to tourist schedules, which is why we are building a voice assistant system in which tourists identify their needs, time, date, interests, and hobbies, and the system then recommends packages with costs, schedules, hotels, and points of interest. season. In addition, system makes recommendations based on the user's interests. As a personal aid, we are

offering all findings in the form of recommendation suggestions in the form of voice.

## 3. LITERATURE SURVEY

1. Data mining-based intelligent recommendation framework for tourist attractions Author Ling Liu (2020)
2. Personalized tourist root recommendation system based on user group dynamic clustering Authors Weiwei Yin, Yan Sun, and Jing Zhao (2021)
3. Personalized tourism route suggestions based on users' active interests Authors Yuan Gao, Jun Feng, Xiaoxi Zhang, and Jie Wang (2020)
4. Veton Kepuska and Gamal Bohouta's Next-Generation Virtual Personal Assistant (2018)
5. Mohit Kanfode, Sukriya Ambade, and Amol Bhagat are the authors of the 5. Location Based Notification System (2018)

## 4. SYSTEM ARCHITECTURE



### 1. Algorithm of K-Means

The Kmeans Technique is an iterative algorithm that attempts to split a dataset into K separate non-overlapping subgroups (clusters), each of which contains only one data point.

### 2. Algorithm of KNN

The KNN Algorithm is a method for calculating the number of nodes in

KNN will calculate the "distance" between the target location and every other location in its database, rank the distances, and recommend the top K closest neighbour locations as the most similar.

### 3. Algorithm of KNN

Apriori Algorithm (Apriori Algorithm) is a type of algorithm that

The Apriori Algorithm is a rule-based analysis that determines if persons who go via city A can also travel through city B.

The association rule outlines the relationship between two or more cities.

## 5. PROPOSED SYSTEM

"Building a system that already collects historical data on user journeys through various methods such as user reviews, user tags, check-in information, and social media." Then, when a new user searches for keywords, which can be a straight name of a place or a description of a place, such as white sand beaches, The system will compare those keywords to all of the system's user reviews, match the keywords to selected POIs, and then build the most appropriate and optimal travel route for complete user satisfaction." "These travel route suggestions will be based on the following set of criteria:" "Attractiveness of the main sights that we pass by." "Attend to these attractions when they open"

"It's also based on numerous social media influencer movements, such as travel bloggers," says the author.

Implementation Modules include:

1. Create an account for yourself.
2. Keywords that are only relevant to a certain location.
3. Keywords that are exclusive to a specific time period.

Generation of Candidate Routes

Exploration of a Travel Route

6. Advice on a product

## 7. CONCLUSIONS

We present a customized travel route recommendation system based on changes in the user's active interest in this project. We use the OP orientation problem to conduct a tailored travel route recommendation by weighing the user's active interest vector and target area feature. This project's method takes into account all of the dynamic aspects that influence a user's interest in a new city tour. Experiments reveal that this strategy outperforms others in terms of performance, and the findings demonstrate the method's usefulness.

## 8. REFERENCES

- [1] H. -P. Hsieh and C. -T. Li, Mining and planning time-aware routes from check-in data, in Proceedings of the 23rd ACM Int. Conf. Conf. Inf. Knowl. Manage., 2014, pp. 481490.
- [2] V. S. Tseng, E. H.-C. Lu, and C.-H. Huang, Mining temporal mobile sequential patterns in location-based service settings, Proc.Int.Conf. Parallel Disturb.Syst., 2007, pp.18.
- [3] W. T.HSU, Y. T.Wen, L.Y.Wei, and W.C.Peng, Skyline travel routes: Explor- ing skyline for trip planning, in IEEE 15th Int. Conf. Mobile Data Manage., 2014, pp. 3136.
- [4] Y. Zheng, L. Zhang, X. Xie, and W. -Y. Ma, Mining interesting locations and journey sequences from GPS trajectories, in Proc. of the 18th International Conference on the World Wide Web, 2009, pp. 791800.