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A Survey on Intelligent Trip Planner

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ABSTRACT: The emerging trend towards globalization in recent years has been conducted by an unusual increase in both local and international travel characterized by an inclination to visit multiple places in the same trip. Planning a trip is one task that everyone has to face at least once in their life like it a business trip or a vacation plan. Behind every successful tour that a man enjoys; is a detailed, feasible and flexible plan that has been made through discussions and tailored to fit the customer's needs. The plan has to be repetitively refined and molded to fit the customer; the process of making such a plan may need days or weeks; the travel agent building up such a plan would demand a more fee for this job. This is money and time-consuming process. Intelligent Trip Planner is a system that should just by taking information related to the customer's start and end points and also using the data about the requirements of the customer; be able to plan out a feasible and flexible trip for the customer. The customer would be provided with a plan that takes their time constraint into consideration and provides various available routes. It would show the tourist the roads and routes to take so as to reach various destinations and the weather conditions predicted for that day and time. Adding their own choice of tourist spots in exchange for the ones mentioned by the system and thus, being able to get the most out of the trip is a facility provided by the system.

KEYWORDS: travel, intelligent system.

I. INTRODUCTION

Creating a travel plan has become an ever more aggressive, complex and time-consuming process involving multiple steps - to name just a few: choosing among several transportation options, places to visit and hotels to stay in, searching for tourist attractions at the various destinations, creating daily schedules factoring in breaks for meals and rest, sifting through dining choices and -last, but not least - calculating routes with the least travel durations in order to make the most efficient use of the limited time available.

Tourism is travel for pleasure or business; also the theory and practice of touring, the business of attracting, accommodating, and entertaining tourists, and the business of operating tours. In India, tourism is economically important and rapidly growing. Behind every successful tour that a man enjoys; is a detailed, feasible and flexible plan that has been made through thorough discussions and tailored to fit the customer's needs. But is building up such a plan an easy task? Is this process a quick one? Is this process a cheap one? NO! The plan has to be repetitively refined and molded to fit the customer; the process of making such a plan may need days or weeks; the travel agent building up such a plan would demand a hefty fee for this job. This is a mentally taxing and money and time-consuming process.

What if there was a system that could plan our trip for us? Well, there are already many systems in the market that are able to provide this to users. The current proposed system is also one of them. This proposed system takes the drawbacks of various existing systems and overcomes them in an efficient and easy to use manner.

This project involves building up of a system that is useful in planning trips based on users' time constraint which can range from duration of 6 hours to duration of multiple days. The system will provide the user with a route that covers various tourist spots in accordance with the above-mentioned time constraint. The itinerary will be generated based on this route and it will take into consideration the opening and closing times of the various spots. It will also provide a tentative time period which would be sufficient to visit that specific place. Information about the various places will be provided in abundance to the user- it will include the ratings and reviews of the place. Also, there would be the availability of recommendations of surrounding spots for any specific tourist spot. This system provides a

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feature which makes it possible for the user to change the plan during the trip. This is done so that flexibility is provided to the user during the trip and user doesn't have to just follow the pre-planned trip.

II. RELATED WORK

Unlike other similar systems which essentially work as calendaring programs, our system is unique in that it combines the information and functions needed for travel planning in their entirety within a single piece of software providing such features as checking hotel availability and calculating optimum routes between user-specified locations at various travel destinations, and offering advice for sightseeing, all the while making sure to take into consideration the user-specified needs for particular meeting days, times and locations and personal preferences for dining, relaxation and sleep [1].

The presents work is the first results of a research aiming to develop a travel trip planner to support the user with personalized pre-trip information. The first part denotes the user needs and the architecture of the system. The second part deals with the modeling framework implemented to shows the best path alternatives from the traveler's service point of view according to real-time data and personal user preferences [2].

Proposed work is to design a more general journey planning service, which generates multiday itineraries for the users. In our service, all POIs are considered and ranked based on the users' preference. The issue of searching the optimal journey is a team orienteering issue (TOP), a well-known NP-complete issue. To reduce the processing cost, a two-stage planning technique is proposed. In its preprocessing stage, single-day itineraries are pre-estimated via the Map Reduce jobs [3].

The comparison of three searching techniques that is A*, Ant colony optimization and genetic techniques to solve the traveler salesman problem for a mobile trip planning application for Eskisehir city, turkey, is presented in this work. The techniques work on more than 30 point-of-interests and 150 sub-point-of-interests. The techniques are compared with respect to their running times for scenarios with a different number of point-of-interests [4].

The system learns preference parameters incrementally based on travel preference a user makes. Existing Bayesian inference techniques require too much computation time for the learning issue that we are dealing with here. Therefore, an approximation technique is developed, which is based on sequential processing of preference parameters and systematic sampling of the parameter space. The data of repetitive travel choices of a representative sample of individuals are used to test the system [5].

Techniques that involve the use of a series of SP experiments to estimate a single comprehensive multimodal travel choice model. In total, four tests are designed focusing on particular multimodal (including Park-and-Ride options) and public-transport choices for trips of varying distance. A representative national sample (N = 2746) of individuals from the Netherlands participated in the tests through an online questionnaire. The data pooled across tests are used to estimate the model in a scaled error-component-mixed multinomial logit framework [6].

A new formulation that sufficiently allows representing a public transit network, as well as, yielding correct results when applying routing techniques. Based on this formulation, we develop a multicriteria routing technique to determine the entire set of no dominated solutions to solve an itinerary planning issue. We introduce also several enhancement strategies to accelerate the techniques search process. As transportation modes, we focus on Railway, bus, tram, and pedestrian. As optimization criteria, we use travel time, number of transfers and the total walking time [7].

III. PROPOSED SYSTEM

The work will provide the user with a route that covers various tourist spots in accordance with the above-mentioned time constraint.

The itinerary will be generated based on this route and it will take into consideration the opening and closing times of the various spots.

It will also provide a tentative time period which would be sufficient to visit that specific place.

Information about the various places will be provided in abundance to the user- it will include the ratings and reviews of the place.

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Also, there would be the availability of recommendations of surrounding spots for any specific tourist spot. This application provides a feature which makes it possible for the user to change the plan during the trip. This is done so that flexibility is provided to the user during the trip and user doesn't have to just follow the pre-planned trip.

Advantages of proposed system:

- ITP provides a way of planning a trip in an efficient manner as it is easy to use and generates a feasible and flexible plan while taking into account the user's interests.
- It gives the best tourist spots of the city selected by customer based on versatile public experience

IV. PROPOSED SYSTEM ARCHITECTURE

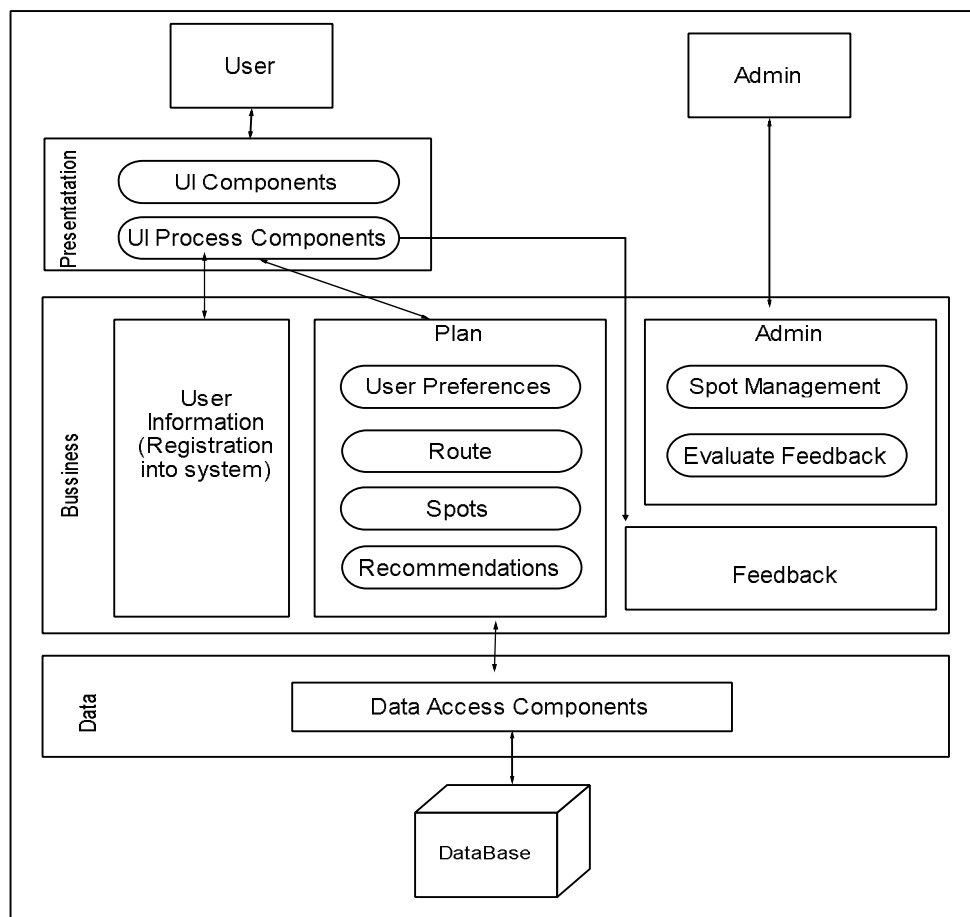


Fig. Proposed System Architecture

V. CALCULATION

ITP is a system that requires the customer to create an account on it and based on the inputs given by the customer at the time of planning a trip, it generates a route using an intelligent algorithm for the various tourist spots and entertainment sites that the customer would be interested in seeing on the trip.

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The various inputs include the start point and time, endpoint and time, the various interests of the customer. Based on these inputs, the various tourist spots that may interest customer are generated and in accordance with the time constraint, a route is generated. The route generated is feasible and flexible.

REFERENCES

- [1] RabiaJafri, AmalSaadAlkhunji, GhadaKhaledAlhader, HananRabeiahAlrabeiah, Noura Abdullah Alhammad, Sara KhaderAlzahrani, "Smart Travel Planner: A mashup of travel-related web services", IEEE journal
- [2] A. Nuzzolo, A. Comi, U. Crisalli and L. Rosati, "An advanced pre-trip planner with personalized information on transit networks with ATIS", IEEE journal
- [3] Gang Chen, Sai Wu, Jingbo Zhou, and Anthony K.H. Tung, "Automatic Itinerary Planning for Traveling Services", IEEE Journal
- [4] AhmetAydin, SedatTelceken, "Comparison of Three Search Algorithms for Mobile Trip Planner for Eskisehir City", IEEE Journal.
- [5] T.A. Arentze, "Adaptive, personalized travel information systems: A Bayesian method to learn users' personal preferences in multi-modal transport networks," in Proc. Transportation Research Board Annual Meeting, Washington, USA, 2013.
- [6] E.J.E. Molin, and T.A. Arentze, "Travelers' preferences in multimodal networks: design and results of a comprehensive series of choice experiments," in Proc. Transportation Research Board Annual Meeting, Washington, USA, 2013.
- [7] J. Zhang, T. Arentze, and H. Timmermans, "A multimodal transport network model for advanced traveler information system," J. Ubiquitous Syst. Pervasive Netw., vol. 4, no. 1, pp. 21–27, 2012.