DECISION TREE BASED TOURISM RECOMMENDATION SYSTEM

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<u>**INTRODUCTION**</u>

Choosing a tourist destination from the information that is available on the Internet and through other sources is one of the most complex tasks for tourists when planning travel, both before and during travel. Previous Travel Recommendation Systems (TRSs) have attempted to solve this problem. However, some of the technical aspects such as system accuracy and the practical aspects such as usability and satisfaction have been neglected. To address   this   issue, it requires a full understanding of the tourists' decision-making and novel models for their information search process. This paper proposes a novel human-centric TRS that recommends destinations to tourists in an unfamiliar city. It considers both technical and practical aspects using a real world data set we collected. The system is developed using a two-steps feature selection method to reduce number of inputs to the system and recommendations are provided by decision tree C4.5. The experimental results show that the proposed TRS can provide personalized recommendation on tourist destinations that satisfy the tourists. Choosing a tourist destination from the information that is available on the Internet and through other sources is one of the most complex tasks for tourists when planning travel, both before and during travel. Previous Travel Recommendation Systems (TRSs) have attempted to solve this problem. However, some of the technical aspects such as system accuracy and the practical aspects such as usability and satisfaction have been neglected..

<u>**MOTIVATION OR RELEVANCE**</u>

To address this issue, it requires a full www.jespublication.com understanding of the tourists' decisionmaking and novel models for their information search process. This paper proposes a novel human-centric TRS that recommends destinations to tourists in an unfamiliar city.It considers both technical and practical aspects using a real world data set we collected. The system is developed using a two-steps feature selection method to reduce number of inputs to the system and recommendations are provided by decision tree C4.5. The experimental results show that the proposed TRS can provide personalized recommendation on tourist destinations that satisfy the tourists.One of the most difficult aspects of organising a trip is deciding on a place based on the information accessible online and through other sources. This is a problem that previous travel recommendation systems have tried to address. In this research, we provide a unique Travel Recommendation System that recommends venues to tourists based on the travellers dataset. A real-

world data set is used for bot professional and operational considerations. Decision tree C4.5 makes suggestions based on a two-step feature selection process for the system's development. Experiments have shown that the suggested Travel Recommendation System is capable of making recommendations on the most popular tourist attractions.

PROBLEM DEFINITION

The proposed DM framework consists of four phases including data acquisition, data pre- processing, data analysis, and result interpretation. (1) For data acquisition, the designed questionnaire, which has four parts, is distributed and collected from Chiang Mai, Thailand. (2) The collected data is pre-processed using several data pre-processing techniques involving data cleaning, data transformation, and feature selection methods. (3) The third phase involves the data analysis processes using a decision tree C4.5 as classifier. The aim of the third phase is to identify suitable features and find personalized systems have not been a focus of RS research. To overcome from above problem author is asking to use C4.5 decision tree algorithms which take experiences of previous users and then build a model and if new user enter his requirements then decision tree will predict best location based on his given input. Decision tree don't need new users past experience data. To implement decision tree model, we need to have dataset and this dataset www.jespublication.com sometime will have empty or garbage values and this values will put bad effect on decision tree model so we can remove such empty or garbage values by applying pre-process techniques. Sometime to predict or build model no need to use all columns (attributes) values from dataset and these unnecessary attributes can be remove by apply features selection algorithms and here we are using MRMR features selection algorithms to remove unnecessary attributes to reduce execution time of building model and to increase system accuracy.

BASIC FUNCTIONALITIES

The system comprises of 3 major modules with their sub-modules as follows:
1. Admin:

- Login: Admin can login in his personal account using id and password.
- Add Location: Admin can add new Locations.
- View Location: Admin can view add locations.

2. User:

- View Location: User can view the location.
- View Opinion Analytics: User can view the opinion analytics of the particular location.

TOOLS / PLATFORM, HARDWARE AND SOFTWARE REQUIREMENT

Hardware Requirements

The section of the hardware is very important for the proper functioning of any software; The size and capacity requirements are also important/the following hardware are needed for the development of the system

Server:

Processor: Intel Pentium

RAM: 2GB

Hard Disk: 80GB CPU

Speed: 2.60GHz

Monitor: VGA Color

Client:

Processor: Pentium

RAM: 1GB

Hard Disk: 40GB

CPU Speed: 1.60GHz

Monitor: VGA Color

Software Requirements

Server:

Web Server: Apache Server

Front End: HTML, CSS and JAVA SCRIPT

Language: PHP

Back End: MYSQL

Web Technology: HTML, CSS, XML, JavaScript and AJAX

Operating System: Windows / XOS / Linux

Client:

Browser: Any standard browser