

Interesting Place Recommender System for Tourists

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Abstract: Travel is a combination of different aspects which are likely to be experienced by most people in their life. Nowadays, information related to all the travel aspects is usually available on the Internet and some travel websites will provide travel packages for users. People will usually seek help when planning a trip. However, existing travel websites do not have a suggestion facility that can suggest suitable places based on the users' needs and requirements. Hence, users found it difficult to plan their vacation. This project is aimed at developing an interesting place recommender system for tourists based on their background. In this project, a website application known as the Interesting Place Recommender System for Tourists (M' Tourism) was developed. It is a website application that generates a list of recommended places for users based on their background. In more detail, this recommender system will match the users' background that are deposited in this system and suggest a suitable travel place for the users based on the similarity of the users' information with the history of the other tourists. The development of this system is based on the waterfall model, which is a standard step-by-step approach to developing an application. The usability testing was conducted on 31 respondents by inviting them to use and test the system. The comments and feedback from the respondents were used to improve the system. The findings from the usability testing also reveal that M' Tourism is an effective web application that allows users to search for the desired information. The respondents also agree that they feel more convenient in planning their vacation with the support from M' Tourism.

Keywords: Travel, Tourism, Interesting Place, Recommender System

1. Introduction

Tourism is a means for people to spend their time away from home seeking amusement and relaxation. Traveling to a beautiful location can help people relieve stress, explore, and discover new things [1]. In this day and age, the majority of travellers will use the internet or official websites to obtain information about a tourist destination. Nevertheless, some tourist websites simply provide trip

packages in order to profit from tourists. Furthermore, some websites provide limited information and do not have the capability of recommending fascinating destinations based on the tourist's background and interests. As a result, travellers do not have enough information on the interesting spots to visit. As a result, they find it difficult to organise their holiday. Tourist planning has been demonstrated to benefit from information and communication technology (ICT) such as the internet and mobile applications [2]. As a result, in order to assist tourists, our project has built an unprofitable travel web-based application with the goal of introducing and sharing the available attractive spots in Malaysia with those who enjoy travelling. This web-based tool is unique in that it can assist tourists in planning their vacations by recommending fascinating areas to visit. The suggestion is based on the tourist's background, as well as other tourists' experiences and opinions.

The Interesting Place Recommender System for Tourists (M'Tourism) was developed in this project for tourism enthusiasts. Figure 1 depicts the M' Tourism landing page. M'Tourism is a web-based service that can suggest places for users based on their gender, age, and race. Furthermore, it provides visitors with useful travel information, and users can browse fascinating destinations based on ratings offered by previous tourists. M'Tourism interface is straightforward in design and easy to understand and use by users.

M'Tourism also provides detailed information on the most interesting locations in each Malaysian state. Beaches, famous locations, caves, shopping, temples, theme parks, islands, museums, and natural parks were among the nine categories used to classify the locations. It contains a list of individual places in each category, including their name, address, and description. Users can also leave comments and give ratings for the location.



Figure 1: Landing page of M' Tourism

2. Materials and Methods

The Waterfall model was used to create the Interesting Place Recommender System for Tourists (M' Tourism). This model is a sequential design process that is one of the Software Development Life Cycle (SDLC) models. It's most commonly used in software development [3]. Figure 2 shows the flow of the methodology used to implement M'Tourism. It contains six steps, which include user requirement and analysis, system design, implementing, testing, operation and maintenance. The user requirements and analysis were collected by distributing the questionnaire to nearby civilians and friends with the aim of gathering their background information and travel history in their lifetime.

The low-fidelity interface design was further drawn and designed to ensure the requirements of the system were achieved in the design phase. In the implementing phase, the web-based application was developed by using languages including Java Script, HTML, CSS, and PHP. In addition, the functionalities of the system were executed. The testing and operation phase was conducted by

recruiting the respondents from friends, civilians and UUM students that had travelling experience and providing them with the field testing questionnaire. The respondents were asked to test the M'Tourism website and provide feedback through the questionnaire. Lastly, for the maintenance phase, the website was updated and improved based on feedback provided by the respondents and further modified to become perfect.



Figure 2: Process of waterfall methodology

3. Results and Discussion

All the requirements for the Interesting Place Recommender System for Tourists (M'Tourism) were successfully developed as shown in Figure 3. First-time users must register their account with the system and login by using the registered account. After successfully logging in, the user can implement all the functions that are provided, such as the search function, viewing the recommended place for the user, writing and viewing the feedback. The users can visit M'Tourism website at anytime and anywhere connected to the Internet through their laptop or their own devices.

A total of 31 respondents were invited to participate in the usability test by using Google Forms. The results of the usability test are shown in Figure 4 and 5. As shown in Figure 4, more than 90% of respondents indicated (agree and strongly agree) that the website is easy, fast, and useful in helping them find their needs. In addition, more than 90% of the respondents indicate (agree and strongly agree) that the website can save them time and the website's interaction is clear and understandable, as shown in Figure 5. Furthermore, all the respondents also believe that the website can effectively help with travel planning and obtain information about interesting places.

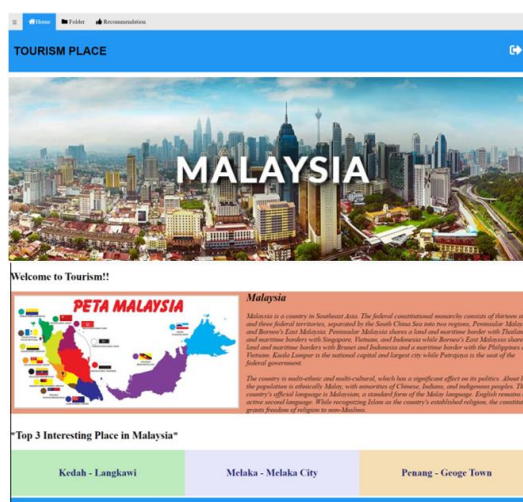


Figure 3: Main page of M' Tourism

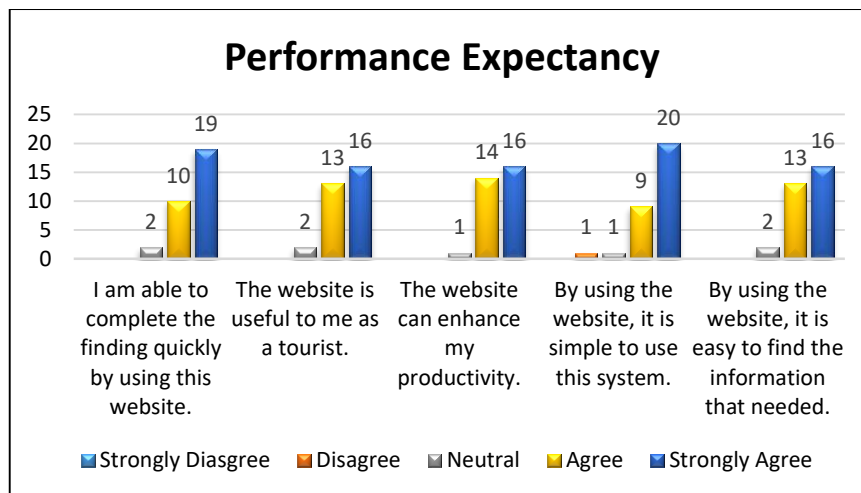


Figure 4: Performance expectancy of M'Tourism

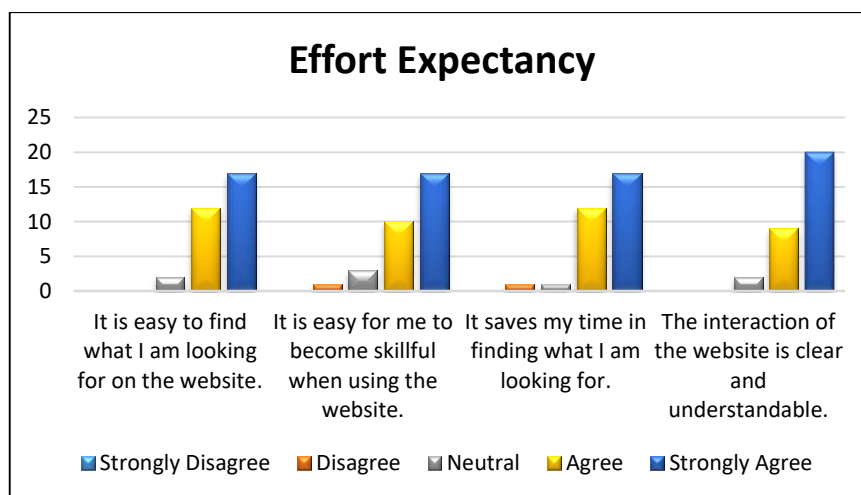


Figure 5: Effort expectancy of M'Tourism

4. Conclusion

In conclusion, the web-based application was developed in this project in order to overcome the problem of tourists planning their vacation. So, users can easily get information through M'Tourism website. The user will also be given a recommendation based on his or her background. Besides that, users can view information on the most interesting places in every state in Malaysia. This website is free of charge and it is available at anytime and anywhere with an Internet connection. Hence, it is convenient and can reduce the cost for users when planning their trips. M'Tourism also increases the interest in travelling as users might be attracted by the beautiful pictures and descriptions when they are browsing the website. This can help to improve and generate the local economy as the users who are attracted will visit the interesting places, spend money at the places and increase the revenue of the nearby businesses.

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