Faculty of Computer Science and Information Technology

Rating One Stop Wedding Center Website

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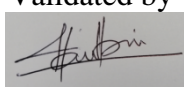**ACADEMIC SESSION: 2019/2020_____**

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Abstract

Wedding ceremony is an event where the bride groom shows to their family and friends that they are getting married and their families have combined to become one family. They are finally be readied to step to their next level of life which is marriage. However, it is not easy to prepare a wedding ceremony. Many people face problems during their preparation. They don't know where to start their preparation and they don't know which services should be chosen. They need to go from one boutique to another until they find the boutique that can fulfil their requirements. One Stop Wedding Center website provides a list of vendors that handles wedding preparation. This project focuses on the rating system of the wedding website. Rating system is used to generate top list of vendors which brings reference to the user as the ratings can reflects the popularity, quality of service and performance of the vendors. The objective of this project is to study the wedding style that is interested by users based on the ratings while providing a platform for vendors to promote their services. With this rating system, it is considered as a success when a well-functioned rating system is developed for One Stop Wedding Center website. Based on the ratings given by other users in this website, this helps customer to select the correct wedding vendors with the best quality services. For vendor side, they can know the customers' satisfaction and make improvement to provide better services.

Abstrak

Majlis perkahwinan adalah acara di mana pengantin mengisytiharkan bahawa mereka akan berkahwin dan keluarga mereka akan bergabung menjadi satu keluarga. Mereka akhirnya bersedia untuk melangkah ke peringkat seterusnya dalam kehidupan mereka iaitu, perkahwinan. Walau bagaimanapun, tidak mudah untuk menyediakan majlis perkahwinan. Ramai orang menghadapi masalah semasa persediaan mereka. Mereka tidak tahu di mana untuk memulakan persediaan mereka dan mereka tidak tahu perkhidmatan mana yang harus dipilih. Mereka perlu pergi dari satu butik ke butik yang lain sehingga mereka dapat menemui butik yang dapat memenuhi keperluan mereka. Laman web One Stop Wedding Center merupakan satu laman web yang menyediakan senarai vendor yang mengendalikan penyediaan perkahwinan. Projek ini memberi tumpuan kepada sistem penarafan laman web perkahwinan. Sistem penilaian digunakan untuk menghasilkan senarai vendor teratas yang membawa rujukan kepada pengguna kerana penarafan dapat mencerminkan populariti, kualiti perkhidmatan dan prestasi vendor. Objektif projek ini ialah mengkaji gaya perkahwinan yang diminati oleh pengguna berdasarkan penarafan pada masa yang sama menyediakan platform kepada vendor untuk mempromosikan perkhidmatan mereka. Dengan sistem penilaian ini, ia dianggap sebagai satu kejayaan apabila sistem penarafan yang berfungsi dengan baik dibangunkan untuk laman web One Stop Wedding Centre. Pelanggan boleh memilih vendor perkahwinan yang betul dan mampu memberi perkhidmatan yang berkualiti berdasarkan penilaian pengguna website sebelum ini. Bagi pihak vendor pula, mereka dapat mengetahui tahap kepuasan pelanggan dan membuat penambahbaikan untuk menawarkan servis yang lebih baik.

Chapter 1: Introduction

1.1 Introduction

Wedding is an important ceremony for a fresh husband wife as they celebrate their most important day in their life. Every bride groom will wish to own their most special and interesting wedding ceremony as this ceremony will be the first and the last wedding ceremony for them which it should be memorable. However, it is not easy to prepare an unforgettable wedding ceremony. They need to consider many aspects in their preparation such as photographer, makeup artist, wedding gown, wedding hall, food and etc. People need to be searching many places just to get the most preferable wedding planning. They need to search for boutique which provide their favourite style and available to follow their wedding schedule.

Nowadays many mobile application and website are developed to promote services for many fields such as fashion, food and beverage, billing, logistic and etc. Services are no longer limited in a shop but can go globally through internet. Customers no longer need to go to the shop to get services but they can get anything just by clicking in the mobile application or website. Organisation can advertise themselves more efficiently through social media. This is the reason why mobile applications and website are growing fast as it is the requirement from the public that stimulates the growth of information technology field.

This project is to develop a website for wedding planning. The main user will be categorized into three, which are the website admin, the future husband wife (customer) and vendors including boutique owner, photographer, makeup artist, wedding planners and etc. This website will provide a list of boutique information including the service provided,

location and photos of previous event. Customer can rate the photos in the website showing their interest to certain style of wedding. These rating will contribute to generate a top list of boutique which can be a reference for other customer especially to the customers that don't have idea how to start their wedding preparation when they visit the website. These ratings will also allow the website to recommend wedding planners that suite customers' taste the best.

In this website, every activities that are being done by users will be collected and analysed. First, users will contribute rating. Next, the ratings from the users are collected. Then, the ratings will generate a Top-N-list in many categories such as Top 10 Makeup Artist, Top 10 Photographers, Top 10 Wedding Gown and etc. These Top-N-lists represent the most popular and best service wedding planners in the website.

1.2 Problem Statement

Most of the future husband wife are facing problem in preparing a wedding ceremony. They need to spend time in finding their photographer, makeup artist, wedding hall, wedding planners and etc. It is not easy for the people which have no idea on how to start preparing their wedding since they do this for the first time. They might need to search for many places just to fulfil their desire on having their perfect wedding. It will be easier if there is a website which provides the list of existing wedding related organization. Recommendation from public can help the future husband wife to prepare their most unforgettable wedding. A boutique with good rating will convince the future husband wife to use the services provided by the boutique.

As for the wedding vendors, they usually face problem on advertising their service. They might have days that are busy but most of the time will be free. With the help of the

website they get a platform to promote their service and the comments from the public help to improve their services. If the wedding planner earns a good ranking in the website, their popularities will increase and they have a higher chance of being chosen by the customers.

1.3 Objective

The main objective of this project is to study the wedding style that is interested by the customers based on their rating. The ratings of customers are collected to generate a most trending wedding style for customers' reference. Second objective is to develop a recommendation system and generate a top N-list based on reviews and ratings which helps the customer to make decision when preparing their wedding. When a customer rates and reviews in the website, their activities are analysed to determine their favourite styles. Then, the customer will be recommended with vendors that provide services which match similar to the customer's taste.

Next objective is to provide a platform for wedding related organization (vendor) to promote their services. Vendors have a chance to advertise themselves when customer sees their post about past events. Customer can look for the previous wedding ceremony handle by the vendors in the website. Vendors even have the opportunity to increase their popularity by participating competition organised by the website. The numbers of voting for the competition proves that the numbers of customer which like the style provided by the vendors.

1.4 Methodology
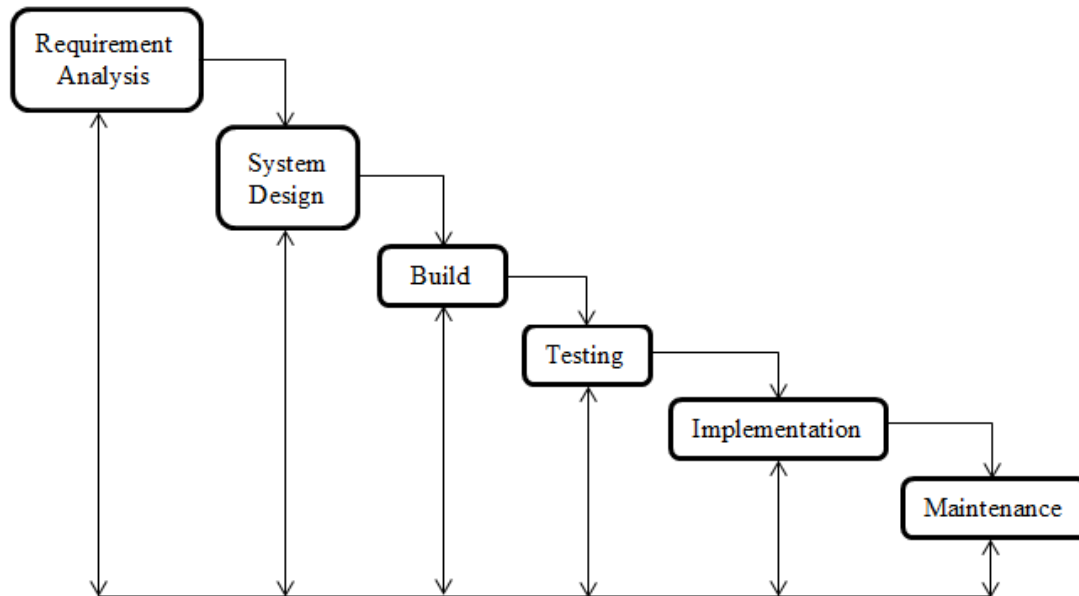
Figure 1.1: Waterfall Model

For this project, waterfall model methodology is used. Figure 1.1 shows the six phases that is involved in this methodology which are requirement analysis, system design, system development, testing, implementation and maintenance. The main reason for using this methodology is because a frequent testing and debugging process is required to produce a quality website before it is introduced to the users.

To develop a well-functioned rating website, a few phases is required. First, the user requirement is analysed. Surveys may be conducted to gather information on what data should be included into the website for wedding planning. Interviews may be done for a few vendors and customer to get the details of wedding planning which will be used to decide the main function of the website. All information is gathered to decide which information will be used for ratings and voting. For example, the location of the vendors is not required for rating. On the other hand, the wedding style, wedding decoration, photographer and makeup

artist services are the things that can be commented by customers to show their interest on certain wedding style.

Next, a website is considered good when it have a useful main function and good design. The arrangement of the Top-N-list should be easily seen by user for a better reference and increase the participation of the user in website activities such as rating, comments, voting and etc. The announcement of competition must appear in main page to attract the vendors to participate and gain interest from customers to vote. The website should not be too crowded to avoid users from losing the interest to explore the website.

Then, the website is built with the main functions which allow the users to add, update, delete and retrieve data. For example, vendors can modify the information in their webpage such as adding their new promotion package or products, update their location, deleting promotion packages and customer can search for things using keyword. The additional feature for rating, comment and voting will also need to be built to allow customer to add, edit or delete comments to the posts in the website, rate the vendors in the website based on their services and vote for the favourite participants during competition.

Furthermore, the website is tested and debugged by the developers. The website will also be tested by the vendors and some customers. The flow of the website will be recorded in a user guide and explained to the user. The vendors and customers will be observed when they tested the website. Later, the problem detected will be solved to improve the performance of the quality.

Then, the website is ready to be implemented when it is considered stable. Vendors can start uploading their details and customers can start exploring the website. Last but not least, the maintenance of the website will be done from time to time as the number of users

increase. Maintenance is an important phase that requires the website admin to do it regularly to prevent any data loss.

1.5 Scope

This website is used by the peoples that are involved in wedding planning. The decision maker in this website will be the future husband wife (customer) as they will decide which wedding planner's services that will be accepted. Customers also contribute their rating and comments in the website which generate valuable information that can be analysed to create the most trending wedding style and Top-N list.

As for the vendors, they will play the role as the domain expert as they will be the people that provide professional recommendation and advice in wedding planning. They will show the services provided in the form of post giving a reference to the customers to start their wedding planning. Customers get to know which wedding style suite them the best based on the professional advice.

Lastly, the website administrators will be the data analyst as they play the responsibility in analysing the data such as voting, rating and reviews in the website. Website administrators will also be responsible for website maintenance especially when many people are surfing the website to allow a smooth surfing.

1.6 Significance of Project

This website will collect the ratings of customers which generate a Top N-list that shows the popularity of the vendors and the wedding style provided by them for customer reference. The Top-N list will also shows the most trending wedding style for that current period or season.

Furthermore, recommendation system is created based on customers activities in the website for decision making. Customers will be recommended with vendors that can suite better with their taste. Peoples like to make their choice by looking at the ranking as good ratings vendors proves that they provide high quality services and satisfied their previous customers.

At the same time, a platform is provided to the vendors to show the services provided and the previous event that has been done by them in their post. Customers can comments on the posts showing their interest in the wedding style provided creating a most trending wedding style.

1.7 Project schedule

Final Year Project is estimated to be done in 328 days where Final Year Project 1 will be using 113 days and Final Year Project 2 will be using 202 days. Based on the Gantt Chart in Appendix B, the Final Year Project 1 will be done between 23 September 2019 until 13 January 2020 while the Final Year Project 2 will be done between 27 January 2020 until 15 August 2020.

1.8 Expected Outcome

At the end of this project, a website that provides a list of wedding related organization includes photographer, makeup artist and wedding hall is developed. Customer can search for their desired wedding planner through the website without going out of their house. Next, a Top Ranking List is generated showing the most trending wedding planner for customer reference when preparing their own wedding. Customer get to know which wedding planner is the best based on the rating without worrying that a bad service will be

provided by the wedding planners. Lastly, customer will be recommended with the style of

wedding which is similar to the previous ratings. Customers' taste is analysed and wedding

planner are recommended to the customers to achieve a higher satisfaction.

Chapter 2: Literature Review

2.1 Introduction

This chapter will focused on reviewing articles that is related with this project in terms of features, algorithms and other information. Articles are compared and contrasted to find the advantages and disadvantages in the articles. The purpose of this chapter is to bring idea and knowledge that is needed in this project.

This project focuses on the recommendation system which mainly on analysing user's online behaviours. Nowadays, there is many existing website that developed with the purpose of promoting products and services. In order to compete with other website, user's inspection is very important. A good recommendation system helps to increase the user satisfaction and this will increase the probability of the user becoming the active user of the website. Recommendation system will play the role as an advisor to the user on decision making by suggesting things that is similar to the user's taste.

2.2 Reviews on Recommendation System

Recommendation system is a type of collective intelligence. Recommendation system collects and analysed the information to generate a useful suggestion to the user. For example, a user is recommended to listen to a new song which is like his or her taste which is rap. This recommendation will encourage the user to keep using this music app if the song meets user's taste. However, this same recommendation will annoy a user that hates rap song. Therefore, it is important for the recommendation system to provide a good suggestion. These suggestions will affect the decision making of the user when these suggestions meet

the user preference. Recommendation system can be categorized into three types which are the collaborative, content-based and hybrid filtering.

Collaborative recommendation system collects the data by combining user profile and community data. Many users think that choosing the items liked by majority of the community is following the trend. Therefore, the community data is collected and analysed to produce a trend in the form of top-N list which most likely to become user reference on decision making.

Content-based recommendation system collects data from user profile and item features. Based on Tewari, Singh and Barman (2018), user will rather view selective part of item based on their interest than knowing the complete details of the item. Most of the time, user will choose some products or services based on their features. The characteristic and the quality of the products might affect the choice of the user. User is more preferable to choose products that match more to their requirements. For example, a user would buy an air conditioner by referring to some feature such as energy consumption, availability of timer and other features.

Hybrid recommendation system combines the characteristic of both the collaborative and content-based recommendation system. Hybrid recommendation system collects the data from user profile, community data and item features. Hybrid recommendation system will provides suggestion by comparing the community that have the similar interest with the user and at the same time considering the item feature that is similar to user requirement.

2.3 Reviews on Recommendation System Framework

In Wang, Wang and Xu (2018) article, a sentiment-enhanced recommendation framework is proposed to produce a recommendation list based on movie reviews. This framework is about

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collecting the user data, movie data and review data from the database as the input. Then, the user data and movie data will be processed using hybrid recommendation method. Collaborative filtering is done to analysed users' behaviour and search for similar user interest while the content-based method is used to get the item features that most likely meet the users' preference. From the data of users' behaviour, similar user interest and item features, a preliminary recommendation list is created.

At the same time, a sentiment analysis is done on movie reviews data. Text information such as review and comments is a type of implicit information that is provided indirectly by the user which requires analysis to extract the useful information. In this framework, the sentiment analysis is done on Chinese word. The Chinese word is segmented, split and analysed to produce positive and negative information.

The result from the hybrid recommendation method and sentiment analysis which is the preliminary recommendation list, positive and negative information will be combined to generate a final recommendation list. Then, the user wanted list and the final recommendation list will be evaluated.
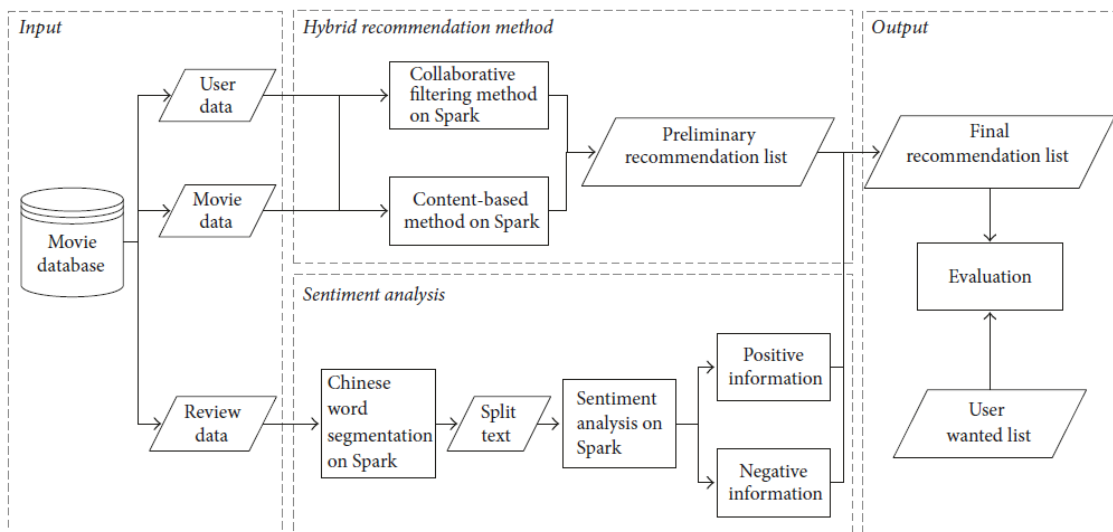

Figure 2.1: A sentiment-enhanced hybrid recommendation framework.

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The framework in Wang et al. (2018) articles is almost similar to this project. In this project, the collaborative filtering and content-based method is used to analyse the user explicit information which is the ratings and user preferences such as the wedding theme, budget and number of guests. This information will produce a preliminary list. Sentiment analysis will be done on user comments and the final recommended list will be the top-N list of the website.

In another article written by Sang (2012), the author mentioned a general framework for collective search and recommendation in social media. This framework shows that the multimedia content in social media is analysed and combine with user understanding to create collective search and recommendation. The multimedia document acts as the item features which is the implicit preference and the user understanding acts as the user profile which is the explicit preference.
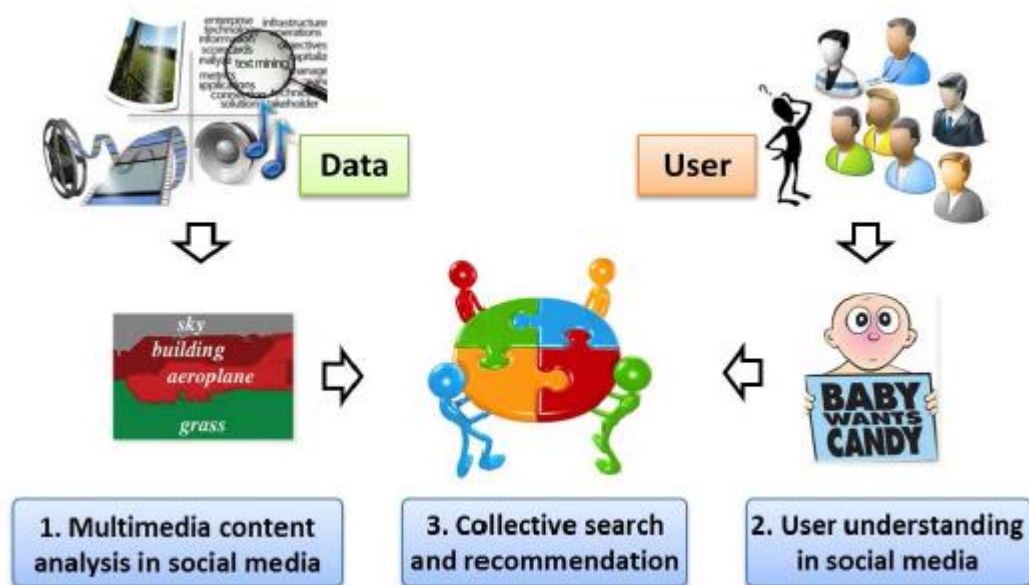

Figure 2.2: The general framework for collective search and recommendation

in social media.

Sang (2012) framework is less preferable in this project as it only include the part where the user contributes rating while the user comments are not mentioned but the progress shown by this articles brings idea for this project. Sang (2012) shows a progress in mage tag refinement gives an idea for image tag for post. Vendors can tag the customer when they post their customers' photo. This helps to promote the vendors services among their customers' peers.

In Guo, Yin, Li, Ren and Liu (2018) article, a flow chart of a mobile e-commerce recommendation system is shown to propose a recommendation method using multi-source information-fusion technology. Consumer location information and online behaviour in mobile terminal is analysed to produce a recommended results. This design performs in four sections which is the data source, recommendation evidence weight, fusion decision and result. In data source section, the information collected is categorised into two which is the information outside and inside the shopping platform. The information outside the shopping platform includes the location service, voice, picture, video and social platform while the information outside the shopping platform includes the product information and consumer information. This information shows the needs for products, recent attention and potential needs of the user.

In recommendation evidence weight section, algorithms are used to improve the RBF network model and improve RBF neural network recommendation weights. In fusion decision section, improved D-S evidence theory is done on multi-sources information fusion. In the result section, power spectrum estimation will produce a recommendation result. In this article, the accuracy and the simplicity is very measured between the traditional algorithm and proposed algorithm. Guo et al. (2018) are trying to propose a method that analysed user demands more accurate with a simpler recommendation rule.