

Book Recommender System

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Abstract : A recommender system is an application that analyses data and makes recommendations for things that a user might be interested in. For example, the Book Recommender System uses user information to suggest relevant books. However, many of the systems do not include recommendations based on the interests and backgrounds of other readers. Therefore, this study proposes a recommender system model for book recommendations that incorporates the background and interests of other readers. This data was combined with the reader's information to generate a list of books that would be of interest to the reader. Furthermore, the system has a comment section that allows users to provide input on the book, whether they like or detest it. The system's development is split into two parts: a user interest survey and prototype development. The purpose of the survey was to gather information on the background and interests of book readers. This data serves as the initial data for the recommender system. The Waterfall model is used in the construction of the recommender system. The proposed recommender system is critical in assisting readers in finding and selecting books that are relevant to their interests. This will save the reader a significant amount of time when browsing the book's collection. Past readers' comments will provide a general summary of the book. This will aid the reader in deciding whether or not to continue reading. The system was tested on a group of readers who served as the study's respondents. The findings shows that more than 80% of the respondents were generally satisfied (agree and strongly agree) with the system's interface design and content.

Keywords: Recommender System, Book Recommender System, Web Based System, Online Repository

1. Introduction

The World Wide Web (WWW) is a fantastic tool for sharing information. Many pieces of information are shared via the WWW and accessed by people from all over the world. Reading resources, such as books, can be shared with others who are interested in the review that was published on the internet. The introduction of the recommendation system has made it easier for readers to choose

related books. Recommender systems assist users by sifting through a large amount of dynamically generated data to deliver personalised content and services [1].

In the case of books, recommender systems look at the user's preferences and compare them to the book's information, including past readers' background. On the other hand, many book recommender systems use either collaborative or content-based filtering methods. This strategy limits the usefulness of the recommender system. By merging collaborative and content-based filtering approaches, a hybrid recommender system can be developed. This strategy combines the advantages of both strategies [2]. Furthermore, there are no comment areas on the old edition of the book website. As a result, readers can not have any expectations or ideas before beginning to read a book because they do not know whether the book is good or not.

This study proposed a web-based book recommender system that provides Malay novel book recommendations based on demographic data such as age and gender. A comment box is also present, allowing readers to provide input and give the book a rating. The recommender system will also use this information to build the recommendation. As a result, people can decide whether or not to choose a book based on the comments/feedback of other readers. This method involves book readers giving feedback and reviewing the books they've read as part of a collaborative effort [3]. The main page of the proposed Book Recommender System is shown in Figure 1.

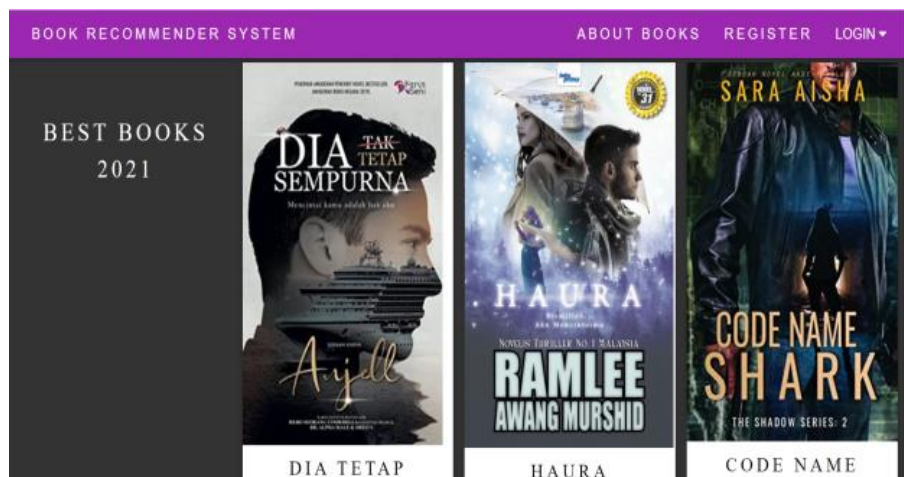


Figure 1: The main Page of the Book Recommender System

2. Materials and Methods

This project is divided into two parts: a survey of book readers' interests and backgrounds, and the development of a recommender system. The recommender system is built based on the Waterfall approach that consists of five phases: requirement, design, implementation, verification, and maintenance. The PhP and MySQL databases were used to create the Book Recommender System website. The survey data was entered into a MySQL database as the starting point for the recommendation system.

A group of 30 people tested the system and gave their feedback. In the system, the respondents were given a task to perform. After that, they are given a set of questions to fill out in order to assess the system's design and content (Table 1). The respondent's response was recorded on a 5-point Likert scale, with 1 representing strongly disagree and 5 representing strongly agree.

Table 1: Questions about the system’s design and content

System Design	System Content
1. Do you like the design of the Book Recommender System?	1. The information provided by the Book Recommender System is clear.
2. Do you think the colors of the Book Recommender System are appropriate?	2. The information provided by the Book Recommender System can effectively help me as a book lover.
3. Do you think the size of the pictures on the website is appropriate?	3. The content provided by the website is meaningful.
4. Does the design of the Book Recommender System render well in a browser?	4. Do you find the relevant content on the Book Recommender System?
5. Do you think the interface of the system is pleasing?	5. Was the information on this Book Recommender System helpful to you?

3. Results and Discussion

The total number of respondents is 30, which includes both students and non-students. Figures 2 and 3 show the respondents' feedback on the website and content design. As the graphs show, more than 80% respondents were generally satisfied (agree and strongly agree) with the system's interface design and content. The results show that respondents are quite happy with the system's interface and design, with an average score of more than 4 on all questions. All of the questions are strongly supported by the majority of respondents.

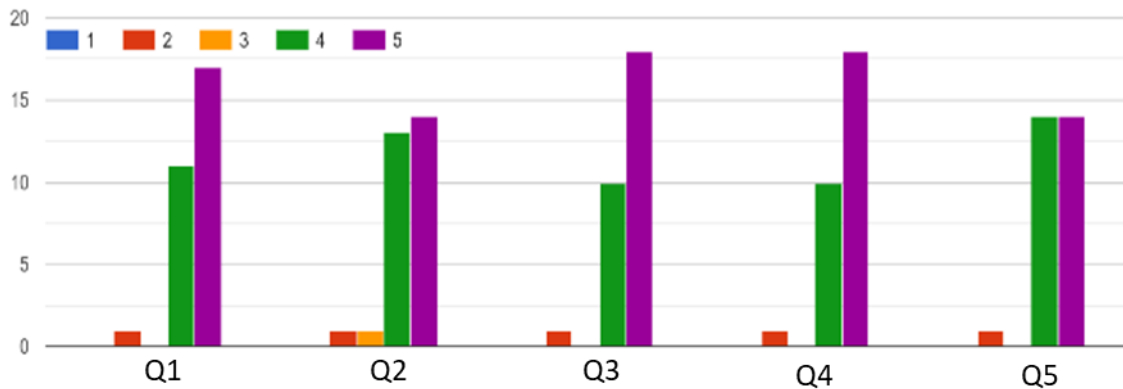


Figure 2: Website Design

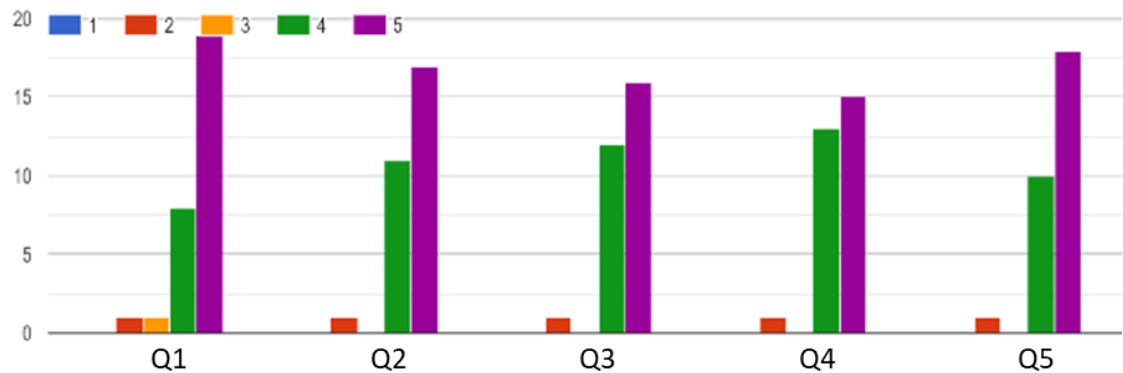


Figure 3: Content Design

4. Conclusion

A Book Recommender System was developed in this study to assist book lovers with the difficult task of choosing the best book to read. Based on its interface design and content, the Book Recommender System has been effectively reviewed. The feedback indicates that the suggested system has a good interface design and that the content meets the users' expectations. This demonstrates that the system's approach has the ability to aid book readers.

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