

**Universiti Teknologi MARA**

**Wifi4U: Broadband Recommendation System by  
Using Rule-Based and Cosine Similarity**

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**Proposal submitted in fulfilment of the requirements for Bachelor of  
Computer Science (Hons.)  
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## **SUPERVISOR APPROVAL**

### **WIFI4U: BROADBAND RECOMMENDATION SYSTEM BY USING RULE- BASED AND COSINE SIMILARITY**

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JULY 9, 2020

## **STUDENT DECLARATION**

I certify this thesis and the project to which it refers is the product of my own work and that any idea of quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.



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## ABSTRACT

As the broadband consumption continues explosive growth, the variety of broadband plan of different Internet Service Providers (ISPs) for home and business in the market are exploding as well. This indirect causes the difficulties for home and business owners in choosing broadband package that match their preferences. Other than that, some users are still paying more than that amount for far slower connections despite there are numerous cheaper choice for high speed connections flowing in the market. Therefore, aim for this system is to recommend broadband plan that match user preferences such as type of usage, speed required, quota, TV services, voice call, connections type and budget. Furthermore, we aim to visualize the information of home and business broadband in Malaysia. In this system, Forward Chaining in Rule-Based algorithm is used to filter user's preferences and Web-Scraping technique is used to extract data and information from websites. Moreover, user can find their desired broadband plan and make registration by using this system. The methodology used in the system is Modified Waterfall where it is breakdown of project activities into linear sequential phases. This methodology includes requirements analysis, system and software design, testing, implementation, and operation and maintenance phases. Results show, based on the functionality testing that conducted, every functions of a system is functioning as proposed where the tested functions providing exact input. Meanwhile, based on usability testing, it is validated by 10 users that the system works smoothly and meet their needs. In the nut shell, a discussion on how the system should responding to the limitations such as implementing collaborative filtering algorithm and adding some features in order to enhance the efficiency of the system is also mentioned.

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