Universiti Teknologi MARA

Student-Class (SC) Optimization System

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SUPERVISOR APPROVAL

STUDENT-CLASS OPTIMIZATION SYSTEM

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This thesis was prepared under the supervision of the project supervisor, Madam Nor Azida Binti Mohamed Noh. It was submitted to the Faculty of Computer and Mathematical Sciences and was accepted in partial fulfilment of the requirements for the degree of Bachelor of Programme's Name.

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JANUARY 3, 2020

STUDENT DECLARATION

I certify that this thesis and the project to which it refers is the product of my own work and that any idea or 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

The Faculty of Computer and Mathematical Sciences is one of the faculties operating in UiTM Campus Jasin, Malacca. Every semester, faculty management faces multiple challenges. One of the issues is the difficulties in arranging and managing classes for students for each semester and issue to estimate the number of class groups in the future. To solve the issue the Student-Class Optimization System had been developed by using optimization technique, specifically, is a Greedy Algorithm. This system optimizes and suggests on an ideal number of student groups should be taken in the next semester. The methodology used to develop this system is a Waterfall Model. The system had been successfully developed following all of 5 phases in the model which are requirement analysis, design, implementation, testing and maintenance. During the testing stage, two testing had been conducted, first was functionality testing and second was usability testing. For the functional testing, the system passes all of the testing and for the usability testing, the average mean is 70% shows that this system is good, relevant and do relate to the study. However, there will be a lot of improvement could be done in the future. Overall, the result of the application of the web-based showed that this application can be considered as successful and very helpful for the user.

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