EXAM INVIGILATION SCHEDULING SYSTEM FOR UITM MALACCA JASIN CAMPUS

MAIZATUL AKMAM BINTI MUSTAPA

BACHELOR OF COMPUTER SCIENCE (Hons)

JULY 2015
Universiti Teknologi MARA

Exam Invigilation Scheduling System for
UiTM Malacca Jasin Campus

Maizatul Akmam Binti Mustapa

Thesis submitted in fulfillment of the requirements for
Bachelor of Computer Science (Hons) Faculty of
Computer and Mathematical Sciences

July 2015
SUPERVISOR’S APPROVAL

EXAM INVIGILATION SCHEDULING SYSTEM FOR UITM MALACCA
JASIN CAMPUS

By

MAIZATUL AKMAM BINTI MUSTAPA
2012262736

This report was prepared under the supervision of the project supervisor, Mohamad Hafiz bin Khairuddin. It was submitted to the Faculty of Computer and Mathematical Science and was accepted in partial fulfillment of the requirements for the degree of Bachelor of Computer Science (Hons).

Approved by

…………………………….
Mohamad Hafiz Bin Khairuddin
Project Supervisor

JULY 30, 2015
STUDENT’S DECLARATION

I certify that this report and the project to which it refers to 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.

..............................................................
MAIZATUL AKMAM BINTI MUSTAPA
2012262736

JULY 30, 2015
ABSTRACT

The final exam invigilation schedule in UiTM Malacca Jasin campus is prepared by UiTM Pulau Pinang Scheduling System, where all the factors and information of lecturers’ constraint being sent there by the Examination Unit. There is always a delay in waiting for the invigilation schedule to be announced. If there are any changes of the schedule after the schedule is generated, the schedule will not be updated in the system. The schedule changing process is done manually by form. The Exam Invigilation Scheduling System aims to own a scheduling system in the campus and reduce the time used in creating the invigilation schedule. To solve the invigilation scheduling problem, constraint based technique with rule based approach is used to find the optimal solution. Rule based technique is used in searching method and involve knowledge base as the data constraint store. In developing the project, software prototyping model was used which involves of the preliminary investigation, requirement definition, system design, system development, system testing and system prototype phase. Two interviews have been conducted as data collection method. The findings of the project include the system requirements and rules. There were ten rules involved in creating the invigilation schedule. The project does not assist in changing the invigilator assigned in the invigilation schedule. Thus, it is recommended to provide function that allows the application of schedule changes for future works.

Keyword: Constraint-based, ruled-based, knowledge base, web-based, hard constraint, soft constraint, optimization, timetabling.