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Online Computer Laboratory Reservation System

by

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Batch 04

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Declaration

I declare that this thesis is my own work and has not been submitted in any form for another degree or diploma at any university or other institution of tertiary education. Information derived from the published or unpublished work of others has been acknowledged in the text and a list of references is given.

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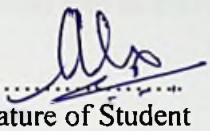
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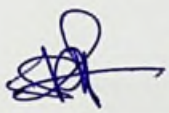
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Dedication

I dedicate this dissertation to my wife, Sathya, who gave more than her share when I am studying for Master of Science. She has accompanied me with her love, unlimited patience, understanding and encouragement. Without her support, I would never be able to accomplish this work. On this period, she played dedication role of excellent mother with my two daughters with my minimum help.

Acknowledgement

First of all, I would like to express my sincere appreciation to my supervisor Dr. G.D.S.P. Wimalaratne (Senior Lecturer, University of Colombo, School of Computing) for providing me an opportunity to work with him and for his guidance, encouragement, continual guidance and simulating discussion on all aspects concerning this project. I would like to give my heartfelt appreciation to my teachers, who gave their knowledge at the Faculty of IT, University of Moratuwa. I would like to thank to Mr. Saminda Pramarathne (Senior Lecturer, Faculty of Information Technology, University of Moratuwa), the coordinator of the M.Sc (IT) course and staff of the University of Moratuwa who gave their maximum support to me. Then I must give many thanks to my all colleagues especially Mr. Ranil Wickramarathna for his very helpful insights. Additionally, I would like to acknowledge Mr. Kokila Ramanayake who gave me the technical support throughout my project. Finally, I wish to thank academic and non – academic staff members in the Computer Unit, Faculty of Management and Finance, University of Ruhuna.

Abstract

The Faculty of Management and Finance has the second largest student population among other faculties in Ruhuna University, Matara, Sri Lanka. Information Technology affiliated subjects or course units (i.e., Computer Applications in Accounting, Introduction to Computer Applications, etc.) were newly introduced to the bachelor of business administration degree to enhance the job opportunities of the management students.

The Student population of the Management Faculty was over 1200 in year 2012. With the increase of the computer laboratory users, it generates insufficient computer distribution among the user in the computer laboratory. The computer laboratory reservation process is still handled by manual approach. To reserve the laboratory, the user has to contact the administrator for his approval. Then administrator will be given the opportunity according to the availability of laboratory. Therefore the purpose of this prototype computer laboratory reservation system links through web to solve this problem and additionally it will ease the management in updating the reservation records.

A computer system must be developed to manage the reservation for the users' request. This system will be available on multiple methods (i.e., web, mobile devices) that assist the users and the administrator to manage the laboratory reservation based on a few constraints such as holiday and permanent classes. The system also tries to give alternative sessions if the requested session is not available.

This system was empowered by Joomla and it was developed as a stand-alone system and also might make it easy to integrate with Faculty Education Management Information System (FEMIS) that already exists. The database used to develop the system is MySQL with PHP programming language. WampServer was used as a server to run the system and Mozilla Firefox12 as a web browser of the system.

The level of the users' acceptance was determined in using *Technology Acceptance Model* where data is gathered through a set of designed questionnaire. In conclusion, this proposed prototype system has a great potency to encounter the university computer laboratory reservation problems by using multiple technologies on human behalf.

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