

**UNIVERSITI TEKNOLOGI MARA**

**SPORTS COURT MANAGEMENT  
SYSTEM FOR DS SPORT CENTRE 2**

**IMAM RUKHYANI BIN ABDULLAH**

**BACHELOR OF INFORMATION SYSTEMS  
(Hons.) BUSINESS COMPUTING**

**JULY 2025**

## ACKNOWLEDGEMENT

Alhamdulillah, praise and thanks to God because with His abundant grace, I was able to complete the final year project within the given time. I faced many challenges in completing this report but managed to overcome them. I would like to express my gratitude to all parties who contributed to the completion of this study. Thank you to my supervisor, Yusnita binti Sokman, for her valuable guidance, contribution of stimulating suggestions, generous help, and patience.

I would like to express my deepest gratitude to my CSP600 and CSP650 lecturers, Nor Hasnul Azirah binti Abdul Hamid lecturer at Universiti Teknologi MARA Cawangan Terengganu Kampus Kuala Terengganu (UiTMCKKT), and lecturers and other parties involved in this research for their commitment and contribution in providing useful information and ideas. The success and final outcome of this report required a lot of guidance, support and constant advice, encouragement, and helpful suggestions. Without the moral support, advice and knowledge given by them, I would not have been able to complete this project.

The highest appreciation is also extended to my beloved parents, my father, Abdullah Bin Ibak, and my mother, Rogayah Binti Sanip, as well as my beloved siblings, for their prayers, support, financial assistance, and encouragement throughout my journey to complete this project. Their unwavering strength, words of support, and constant advice have been invaluable in helping me overcome obstacles. Without their support, I would not have been able to complete my research successfully.

## ABSTRACT

DS Sport Centre 2 Sports Court Management System is a web-based system developed to replace the existing manual booking method used by the DS Sport Centre 2. Currently, bookings are made through calls or messages, and staff manually record reservations in a logbook, which often leads to double bookings, misplaced records, and slow responses. Payments are also handled manually, increasing the risk of calculation errors. These problems affect both staff efficiency and customer satisfaction. Therefore, the proposed system aims to streamline the booking process, minimize human error, and ensure secure and accurate data management. The new system aims to improve operational efficiency, reduce errors, enhance customer convenience, and provide a more secure and accessible platform for managing court reservations and payments. So, the aim of developing the DS Sport Centre 2 Sports Court Management System (DSSCSCMS) is for helping the customers and staffs in booking process. The Adapter Waterfall model was used in developing this system. Additionally, usability heuristics was used also as a theory to guide the development of this system. The system has been tested with the (30) users and two (2) experts. The testing method is the ISO/IEC 9126-4 approach to measure usability metrics, including efficiency, effectiveness, satisfaction, easy to learn and remember, error and security, and user interface. Where, for the experts, heuristic evaluation is used to bring ten usability principles into implementation for testing. The result of the testing is very satisfying, which shows 92.2% of efficiency, 78.225% of effectiveness, 57% of satisfaction, 60.2% of easy to learn and remember, 80.625% of error and security, 74.2% of user interface and most of the users very satisfied with the system. The result of heuristic evaluation also shows a successful implementation of the system. The details of the result are discussed in this paper and expected to meet the user's specification and it is ready to go live.

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