

**UNIVERSITI TEKNOLOGI MARA**

**WEB-BASED HOSTEL OUTING  
SYSTEM (HOS) FOR SMK SERI  
GADING (SEGA) USING USABILITY  
PRINCIPLES**

**SITI AISHAH BINTI MOHD RAHIM**

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

**JULY 2025**

## ACKNOWLEDGEMENT

Bismillahirrahmanirahim,

Alhamdulillah, all praise and thanks to God, for with His grace and blessings, I was able to complete my final year project, "Web-based Hostel Outing System for SMK Seri Gading," within the given time. Even though I faced many challenges and difficulties, I managed to overcome them. I would like to thank everyone who supported me in completing this project. Special thanks to my supervisor, Ts. Dr. Rashidah Binti Mokhtar, for her guidance, helpful suggestions, support, and patience.

I also want to thank my CSP600 and CSP650 lecturer, Miss Nor Hasnul Azirah Binti Abdul Hamid, from Universiti Teknologi MARA Kuala Terengganu (UiTMKT), and other lecturers and individuals involved in this study for their commitment and for sharing useful ideas and information. The success of this report was made possible with their guidance, support, and encouragement. Without their advice and help, I would not have been able to complete this project.

My deepest thanks go to my parents, Mohd Rahim Bin Muntawil and Siti Aisah' Binti Sumadi, as well as my siblings, for their prayers, financial support, and encouragement. They gave me strength, comfort, and motivation to complete this project despite the challenges. Thank you for always being there for me. May Allah S.W.T reward you for your kindness and support, which made this project possible.

*"Last but not least, I wanna thank me, I wanna thank me for believing in me, I wanna thank me for doing all this hard work. I wanna thank me for having no days off, I wanna thank me for never quitting, I wanna thank me for always being a giver and tryna give more than I receive, I wanna thank me for tryna do more right than wrong, I wanna thank me for just being at all times."*

## ABSTRACT

The Web-Based Hostel Outing System (HOS) for SMK Seri Gading is an online system created to make managing student outings process easier and more efficient. The current manual process, which relies on paper forms and warden availability, is slow, prone to errors, and causes delays, especially during busy times. It is also difficult to track students who do not return on time, monitor those outside, and identify restricted students. To solve these problems, the HOS is designed to let students submit outing requests online, notify guardians about approvals, and help wardens and security staff manage and track outings more effectively. The system is developed by following the Adapted Waterfall Model, which includes six steps which consist of planning, analysis, design, implementation, testing, and documentation. Ten Principles of Usability Heuristics is used as a guideline to make sure the system is easy to use, with clear navigation, helpful feedback, and a simple design. The system's functionality is tested using test plan, while usability testing gathers feedback from 5 experts and 37 users to ensure the system works as intended and is user-friendly. Guardians get instant updates about their child's outings, students can check their requests, and wardens can manage records and approve requests more easily. Testing confirms that users like the system for being simple and efficient. Feedback from testing will help make the system even better in the future, so it keeps meeting the needs of its users. Based on this feedback, future enhancements include automated WhatsApp or email notifications for outing status updates, an emergency communication feature for reporting urgent situations such as transport delays, and a secure online payment option for outing-related charges or penalties linked to student demerits. These improvements aim to enhance communication, increase accountability, and support smoother hostel operations.

## TABLE OF CONTENTS

<b>CONTENT</b>	<b>PAGE</b>
<b>SUPERVISOR APPROVAL</b>	<b>iii</b>
<b>STUDENT DECLARATION</b>	<b>iv</b>
<b>ACKNOWLEDGEMENT</b>	<b>v</b>
<b>ABSTRACT</b>	<b>vi</b>
<b>TABLE OF CONTENTS</b>	<b>vii</b>
<b>LIST OF FIGURES</b>	<b>xi</b>
<b>LIST OF TABLES</b>	<b>xiv</b>
<b>LIST OF ABBREVIATIONS</b>	<b>xvi</b>

### **CHAPTER ONE : INTRODUCTION**

1.0	Introduction	1
1.1	Background of Study	1
1.2	Current Process	2
1.3	Problem Statements	7
1.4	Project Objectives	9
1.5	Scope	9
1.6	Significance	11
1.7	Project Framework	13
1.8	Gantt Chart	14
1.9	Conclusion	16

### **CHAPTER TWO : LITERATURE REVIEW**

2.1	Introduction	17
2.2	Management Information System (MIS)	17
2.2.1	Definition of Information System (IS)	17

2.2.2	History and Evolution of Management Information System (MIS)	19
2.2.3	Management Information System (MIS) in the Education Sector	20
2.2.4	Management Information System (MIS) in Hostel Outing Management	22
2.3	Hostel Outing System	23
2.3.1	Web-Based Hostel Outing System	23
2.3.2	Advantages Web-Based Hostel Outing System	24
2.4	Usability Principles	25
2.4.1	Jakob Nielsen Usability Heuristic	26
2.4.1.1	Jakob Nielsen's Usability Heuristic	26
2.4.1.2	Advantages of Using Usability Heuristic	28
2.4.2	System Usability Scale (SUS)	29
2.5	Software Development Life Cycle (SDLC)	30
2.5.1	Waterfall Model	31
2.6	Similar Existing System	34
2.6.1	Boarding School Outing System (BSOS)	34
2.6.2	E-College Monitoring System	38
2.6.3	<i>Sistem Keluar Pejabat</i>	41
2.6.4	Comparison between Similar System	45
2.7	Implications of Literature Review	46
2.8	Conclusion	49

## **CHAPTER THREE: PROJECT METHODOLOGY**

3.1	Introduction	51
3.2	Project Methodology	51
3.3	Planning Phase	51
3.4	Analysis Phase	56
3.5	Design Phase	59
3.5.1	Context Diagram	59