

PSM 1 EVALUATION RUBRIC

Section B(1): Supervision – 10% (SUPERVISOR)

Criteria	1: Minimal	2: Satisfactory	3: Good	4: Excellent
Log book	No/inadequate entry, entries do not reflect project progress	Weekly entry, entries somewhat reflect project progress	Meaningful weekly entry, entries reflect project progress	Meaningful weekly entry, entries reflect project progress, includes project planning
Meeting frequency	Hardly meet, < 2 meetings	< 5 meetings	5 meetings	=> 6 meetings
Work ethic	Passive attitude, unable to communicate with supervisor	Good attitude, poor communication with supervisor	Good attitude, good communication and relations with supervisor	Positive attitude, good communication and relations with supervisor
Self-reliance / Independence	Highly dependent on supervisor	Dependent on supervisor	Somewhat dependent on supervisor and able to solve problems with support	Able to work and solve problems independently

Section B(2): Progress Report 1 – 10% (SUPERVISOR)

Criteria	1: Minimal	2: Satisfactory	3: Good	4: Excellent
Progress of Chapter 1	Inherent spelling and grammatical errors, incomplete chapter contents	Some spelling and grammatical errors, chapter contents somewhat complete	Some spelling and grammatical errors, chapter contents complete	No spelling and grammatical errors, chapter contents complete *chapter contents follows PSM handbook
Progress of Chapter 2	Inherent spelling and grammatical errors, incomplete chapter contents	Some spelling and grammatical errors, chapter contents somewhat complete	Some spelling and grammatical errors, chapter contents complete	No spelling and grammatical errors, chapter contents complete *chapter contents follows PSM handbook
Writing style, Format and Clarity	<ul style="list-style-type: none"> Does not follow thesis format Figures and tables are not captioned and referred 	<ul style="list-style-type: none"> Follow thesis format Inappropriate use of figures and tables Figures and tables are captioned but not referred 	<ul style="list-style-type: none"> Follow thesis format Inappropriate use of figures and tables Figures and tables are captioned and referred 	<ul style="list-style-type: none"> Follow thesis format Appropriate use of figures and tables Figures and tables are captioned and referred
Citation and References	<ul style="list-style-type: none"> No citations Direct translation 	<ul style="list-style-type: none"> Minimal citations No direct translation 	<ul style="list-style-type: none"> Some facts and information are not clearly cited No direct translation 	<ul style="list-style-type: none"> All facts and information are clearly cited No direct translation

Section B(3): Progress Report 2 – 10% (SUPERVISOR)

Criteria	1: Minimal	2: Satisfactory	3: Good	4: Excellent
Progress of Chapter 3	<ul style="list-style-type: none"> Inherent spelling and grammatical errors, Incomplete chapter contents 	<ul style="list-style-type: none"> Some spelling and grammatical errors, Chapter contents somewhat complete 	<ul style="list-style-type: none"> Some spelling and grammatical errors, Chapter contents complete 	<ul style="list-style-type: none"> No spelling and grammatical errors, Chapter contents complete *Chapter contents follows PSM handbook
Progress of Chapter 4	<ul style="list-style-type: none"> Inherent spelling and grammatical errors, Incomplete chapter contents 	<ul style="list-style-type: none"> Some spelling and grammatical errors, Chapter contents somewhat complete 	<ul style="list-style-type: none"> Some spelling and grammatical errors, Chapter contents complete 	<ul style="list-style-type: none"> No spelling and grammatical errors, Chapter contents complete *Chapter contents follows PSM handbook
Writing style, Format and Clarity	<ul style="list-style-type: none"> Does not follow thesis format Figures and tables are 	<ul style="list-style-type: none"> Follow thesis format Inappropriate use of figures and tables 	<ul style="list-style-type: none"> Follow thesis format Inappropriate use of figures and tables 	<ul style="list-style-type: none"> Follow thesis format Appropriate use of figures and tables

	not captioned and referred	<ul style="list-style-type: none"> Figures and tables are captioned but not referred 	<ul style="list-style-type: none"> Figures and tables are captioned and referred 	<ul style="list-style-type: none"> Figures and tables are captioned and referred
Citation and References	<ul style="list-style-type: none"> No citations Direct translation 	<ul style="list-style-type: none"> Minimal citations No direct translation 	<ul style="list-style-type: none"> Some facts and information are not clearly cited No direct translation 	<ul style="list-style-type: none"> All facts and information are clearly cited No direct translation

Section B(4): Final Report - 30% (SUPERVISOR / EXAMINERs)

Criteria	1: Minimal	2: Satisfactory	3: Good	4: Excellent
Abstract	<ul style="list-style-type: none"> Not very informative or understandable 	<ul style="list-style-type: none"> Somewhat informative and understandable Does not comprehend the implemented project 	<ul style="list-style-type: none"> Informative, complete and understandable Comprehend the implemented project 	<ul style="list-style-type: none"> Highly informative, complete and understandable Comprehend the implemented project very well
Completeness of Chapter 1	<ul style="list-style-type: none"> Inherent spelling and grammatical errors, Incomplete chapter contents 	<ul style="list-style-type: none"> Some spelling and grammatical errors, Chapter contents somewhat complete 	<ul style="list-style-type: none"> Some spelling and grammatical errors, Chapter contents complete 	<ul style="list-style-type: none"> No spelling and grammatical errors, Chapter contents complete *Chapter contents follows PSM handbook
Completeness of Chapter 2	<ul style="list-style-type: none"> Inherent spelling and grammatical errors, Incomplete chapter contents 	<ul style="list-style-type: none"> Some spelling and grammatical errors, Chapter contents somewhat complete 	<ul style="list-style-type: none"> Some spelling and grammatical errors, Chapter contents complete 	<ul style="list-style-type: none"> No spelling and grammatical errors, Chapter contents complete *Chapter contents follows PSM handbook
Completeness of Chapter 3	<ul style="list-style-type: none"> Inherent spelling and grammatical errors, Incomplete chapter contents 	<ul style="list-style-type: none"> Some spelling and grammatical errors, Chapter contents somewhat complete 	<ul style="list-style-type: none"> Some spelling and grammatical errors, Chapter contents complete 	<ul style="list-style-type: none"> No spelling and grammatical errors, Chapter contents complete *Chapter contents follows PSM handbook
Completeness of Chapter 4	<ul style="list-style-type: none"> Inherent spelling and grammatical errors, Incomplete chapter contents 	<ul style="list-style-type: none"> Some spelling and grammatical errors, Chapter contents somewhat complete 	<ul style="list-style-type: none"> Some spelling and grammatical errors, Chapter contents complete 	<ul style="list-style-type: none"> No spelling and grammatical errors, Chapter contents complete *Chapter contents follows PSM handbook
Writing style, Format and Clarity	<ul style="list-style-type: none"> Does not follow thesis format Figures and tables are not captioned and referred 	<ul style="list-style-type: none"> Follow thesis format Inappropriate use of figures and tables Figures and tables are captioned but not referred 	<ul style="list-style-type: none"> Follow thesis format Inappropriate use of figures and tables Figures and tables are captioned and referred 	<ul style="list-style-type: none"> Follow thesis format Appropriate use of figures and tables Figures and tables are captioned and referred
Citation and references	<ul style="list-style-type: none"> No citations Direct translation 	<ul style="list-style-type: none"> Minimal citations No direct translation 	<ul style="list-style-type: none"> Some facts and information are not clearly cited No direct translation 	<ul style="list-style-type: none"> All facts and information are clearly cited No direct translation

Section B(5a): Design - 25% (SUPERVISOR / EXAMINERs)

Criteria	1: Minimal	2: Satisfactory	3: Good	4: Excellent
System Flow and Architecture	<ul style="list-style-type: none"> System flow does not reflect understanding of project System architecture is incorrect or not done Limited/no modules and 	<ul style="list-style-type: none"> System flow somewhat reflects understanding of project System architecture is correct Some modules and I/O 	<ul style="list-style-type: none"> System flow reflects understanding of project System architecture is correct All modules and I/O identified and 	<ul style="list-style-type: none"> System flow reflects full understanding of project System architecture is correct All modules and I/O clearly identified and

	I/O identified and connected	identified and connected	connected	connected
User Requirement	<ul style="list-style-type: none"> Not all the different users of system are identified (e.g. staff, managers, clients, admin, etc), but not clearly – many (or crucial ones) are missing Requirements from all the different users involved in the system are not correctly obtained, or obtained in an unsuitable manner. Proof of user requirement process, instrument (interview, survey, etc.) and results are not shown in report. Some or most of the processes are missing, or instrument used is unsuitable. 	<ul style="list-style-type: none"> Some of the different users of system are identified (e.g. staff, managers, clients, admin, etc), but not clearly – some are missing Requirements from all the different users involved in the system are somewhat clearly and correctly obtained. Proof of user requirement process, instrument (interview, survey, etc.) and results are not clearly shown in report. Some processes are missing, or instrument used is unsuitable. 	<ul style="list-style-type: none"> All the different users of system are clearly identified (e.g. staff, managers, clients, admin, etc) Requirements from all the different users involved in the system are clearly and correctly obtained. Clear proof of user requirement process, instrument (interview, survey, etc.) and results are shown in report. 	<ul style="list-style-type: none"> All the different users of system are very clearly identified (e.g. staff, managers, clients, admin, etc) Requirements from all the different users involved in the system are very clearly and correctly obtained. Clear proof of user requirement process, instrument (interview, survey, etc.) and results are clearly shown in report.
Database Design	<ul style="list-style-type: none"> Database not complete and does not reflect project aims and objectives Does not follow database development standard No database design software used (UML/DFD/etc.) 	<ul style="list-style-type: none"> Database fairly reflects project aims and objectives Somewhat follow database development standard Incomplete database design software used (UML/DFD/etc.) 	<ul style="list-style-type: none"> Database reflects project aims and objectives Somewhat follow database development standard Complete database design software used (UML/DFD/etc.) 	<ul style="list-style-type: none"> Database clearly reflects project aims and objectives Follow database development standard Complete database design software used (UML/DFD/etc.)
UML Design	<ul style="list-style-type: none"> Actors are incorrectly identified No use case, sequence diagram, class diagram (or only one present) 	<ul style="list-style-type: none"> All actors are identified Incomplete use case, sequence diagram, class diagram (any two only present) 	<ul style="list-style-type: none"> All actors are fully identified Complete use case, sequence diagram, class diagram (any one not complete) 	<ul style="list-style-type: none"> All actors are fully identified Complete and clear use case, sequence diagram, class diagram (all three)
Gantt Chart	<ul style="list-style-type: none"> Unorganized monthly planning All phases and activities are not complete or clearly outlined Milestones not identified Either PSM 1 or PSM 2 planning missing 	<ul style="list-style-type: none"> Clearly shows monthly planning All phases and activities are fairly complete and clearly outlined Milestones not identified Have both PSM 1 and PSM 2 planning 	<ul style="list-style-type: none"> Clearly shows monthly planning All phases and activities are complete and clearly outlined Milestones not fully identified Have both PSM 1 and PSM 2 planning 	<ul style="list-style-type: none"> Clearly shows monthly planning All phases and activities are complete and clearly outlined Milestones clearly and fully identified Have both PSM 1 and PSM 2 planning
Interface Design	<ul style="list-style-type: none"> Limited/No GUI Does not reflect project aims and user requirements 	<ul style="list-style-type: none"> One of these designs are fully completed (screen/menu, content, system/page navigation) Somewhat reflects project aims and user requirements 	<ul style="list-style-type: none"> Two of these designs are fully completed (screen/menu, content, system/page navigation) Reflects project aims and user requirements 	<ul style="list-style-type: none"> All of these designs are fully completed (screen/menu, content, system/page navigation) Fully reflects project aims and user requirements
Course domain elements	<ul style="list-style-type: none"> Minimal and missing many course domain elements 	<ul style="list-style-type: none"> Has a few course domain elements, but not done well. 	<ul style="list-style-type: none"> Has most course domain elements, but not complete and done fairly well. 	<ul style="list-style-type: none"> Has a complete set course domain elements and done well. SCSR: Network and security elements: *** devices include the following: IoT,

				<p>embedded, fingerprint reader, RFID scanner, etc.</p> <ul style="list-style-type: none"> • Network elements: Full system integration between Client/server (web/database/etc.) and devices – if any); no local host (mandatory); admin features/services are complete. • Security elements: Password and database encryption (mandatory); flow control of system and access control. Security measures to support asset and process/operations akin to system needs.
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Section B(5b): Problem Formulation and Research - 25% (SUPERVISOR / EXAMINERS)

Criteria	1: Minimal	2: Satisfactory	3: Good	4: Excellent
Introduction	<ul style="list-style-type: none"> • Does not give any information about what to expect in the report 	<ul style="list-style-type: none"> • Gives very little information 	<ul style="list-style-type: none"> • Gives too much information – more like a summary 	<ul style="list-style-type: none"> • Present a concise lead in to the report
Research Problems and Research Questions	<ul style="list-style-type: none"> • Wrote questions which lacked a specific focus, were poorly stated, and not relevant to the assigned topic 	<ul style="list-style-type: none"> • Wrote questions which lacked focus, were poorly stated, and were not entirely relevant to the assigned topic 	<ul style="list-style-type: none"> • Wrote well-worded, specific questions that were relevant to the assigned topic 	<ul style="list-style-type: none"> • Wrote thoughtful, creative, well-worded specific questions that were relevant to the assigned topic
Problem Background and Objectives	<ul style="list-style-type: none"> • Minimal understanding of the problems and not researched well • Suggested inappropriate solution and methods to achieve research objectives 	<ul style="list-style-type: none"> • Somewhat understand the problems but not researched enough • Suggested quite appropriate solution and methods to achieve research objectives 	<ul style="list-style-type: none"> • Clearly researched problems • Suggested somewhat appropriate solution and methods to achieve research objectives 	<ul style="list-style-type: none"> • Clearly researched problems • Suggested appropriate solution and methods to achieve research objectives
Research phases	<ul style="list-style-type: none"> • Operational research framework phases are not suitable, not aligned with the problem at hand and not clearly presented. • Justification of tools, data, technique/s is not done 	<ul style="list-style-type: none"> • Operational research framework phases are not clearly express or aligned with the problem at hand • Justification of tools, data, technique/s is not done or done not well 	<ul style="list-style-type: none"> • Operational research framework phases are somewhat clear and aligned with the problem at hand • Justification of tools, data, technique/s is done somewhat well 	<ul style="list-style-type: none"> • Operational research framework phases are clear and aligned with the problem at hand • Justification of tools, data, technique/s is done well
Experiment Design/Research Procedure	<ul style="list-style-type: none"> • The research design is inappropriate or has not been identified and or described using standard terminology. • Limitations and assumptions are omitted. 	<ul style="list-style-type: none"> • The research design is confusing or incomplete given the research questions and sampling strategy. • Important limitations and assumptions have not been identified. 	<ul style="list-style-type: none"> • The research design has been identified and described in sufficiently detailed terms. • Some limitations and assumptions have been identified. 	<ul style="list-style-type: none"> • The purpose, questions, and design are mutually supportive and coherent. Attention has been given to eliminating alternative explanations and controlling extraneous variables. • Appropriate and important limitations and assumptions have been clearly stated.

Section B(6): Presentation - 10% (EXAMINER)

Criteria	1: Minimal	2: Satisfactory	3: Good	4: Excellent
Appearance and attitude	<ul style="list-style-type: none"> Does not follow UTM Smart Day dress code Impolite to examiners 	<ul style="list-style-type: none"> Casually dressed Polite to examiners Passive attitude 	<ul style="list-style-type: none"> Partly follow UTM Smart Day dress code Polite to examiners Positive attitude 	<ul style="list-style-type: none"> Follow UTM Smart Day dress code Polite to examiners Positive attitude
Project understanding / Content	<ul style="list-style-type: none"> Does not clearly define the topic, problem, and its solution Little understanding of the key analysis and findings with or without evidence 	<ul style="list-style-type: none"> Define the topic, problem and its solution Somehow understand the key analysis and findings but with little evidence 	<ul style="list-style-type: none"> Define the topic, problem and its solution Mostly understand the key analysis and findings but the explanation is not clear Provide evidence with multiple sources 	<ul style="list-style-type: none"> Clearly define the topic, problem, solution and its significant Clearly understand the key analysis and findings with relevant and accurate evidence and appropriate details Provide evidence with multiple and varied sources
Clarity of presentation	<ul style="list-style-type: none"> Not clear communication Presentation is unorganised 	<ul style="list-style-type: none"> Somewhat clear communication Presentation is satisfactorily organised 	<ul style="list-style-type: none"> Clear communication Presentation is organised 	<ul style="list-style-type: none"> Very clear communication Presentation is well organised
Question and answer session	<ul style="list-style-type: none"> Unable or not attempting to answer questions or answers reflect lack of project understanding 	<ul style="list-style-type: none"> Able to answer some questions Some answers are irrelevant to project objectives 	<ul style="list-style-type: none"> Able to answer most questions Answers reflect project understanding 	<ul style="list-style-type: none"> Able to answer all questions Answers reflect project understanding

Section B(7): Ethics - 5% (COORDINATOR)

Criteria	1: Minimal	2: Satisfactory	3: Good	4: Excellent
Similarity Percentage	<ul style="list-style-type: none"> Non or very minimal (less than 2 chapters) have been verified for similarities percentage using <i>turnitin</i>, and endorsed by supervisor, with each chapter having less than 20% each. For Bahasa Malaysia reports – direct translations abound. 	<ul style="list-style-type: none"> Not all chapters (less than 4) have been verified for similarities percentage using <i>turnitin</i>, and endorsed by supervisor, with each chapter having less than 20% each. For Bahasa Malaysia reports – some direct translations found. 	<ul style="list-style-type: none"> Not all chapters have been verified for similarities percentage using <i>turnitin</i>, and endorsed by supervisor, with each chapter having less than 20% each. For Bahasa Malaysia reports – no direct translations at all. 	<ul style="list-style-type: none"> All chapters have been verified for similarities percentage using <i>turnitin</i>, and endorsed by supervisor, with each chapter having less than 20% each. For Bahasa Malaysia reports – no direct translations at all.
Submission	<ul style="list-style-type: none"> Does not follow all submissions (form/ report) process, procedure and deadline 	<ul style="list-style-type: none"> Somewhat follow submissions (form/ report) process, procedure and deadline 	<ul style="list-style-type: none"> Follow submissions (form/ report) process, procedure and deadline 	<ul style="list-style-type: none"> Follow all submissions (form/ report) process, procedure and deadline

Notes:

Mark calculation:

e.g.: Section B(1) – Supervisor (10 %)

If mark given is 1: $1/4 * 10 = 2.5 \%$

If mark given is 2: $2/4 * 10 = 5.0 \%$

If mark given is 3: $3/4 * 10 = 7.5 \%$

If mark given is 4: $4/4 * 10 = 10.0 \%$

