

SIT215 Assignment 1: Problem Solving – Marking Rubric

	Criteria	Level 1	Level 2	Level 3	Level 4	Level 5
		Not assessable or Insufficient	Below Minimum Standard	The level of achievement (3: Meets Minimum, 4: Excellent, 5: Outstanding) is also reflected in the completeness of the Pass (P), Credit (C), Distinction (D), and High Distinction (HD) criteria outlined in the tasksheet.		
	Problem Analysis and Completion (8)	<ul style="list-style-type: none"> - Unable to identify the problem or propose relevant solutions. - Environment representation is incomplete, unclear or omit essential features needed for the task goal. (0-1)	<ul style="list-style-type: none"> - Identifies the problem but with limited clarity and minimal breakdown into relevant sub-challenges. - Environment representation lacks essential features or clarity, with limited alignment with the task goal. (2-3)	<ul style="list-style-type: none"> - Able to identify high-level problems and formulate specific sub-challenges. - Environment representation includes key features and relevant constraints. Problem formation is clear and generally aligns with the task objective. (4-5)	<ul style="list-style-type: none"> - Critically analyses both high- and low-level problems, translating them into specific, actionable sub-challenges. - Environment representation is detailed, with clearly defined constraints and features. Problem formation is well-explained and fully aligned with task goal. (6-7)	<ul style="list-style-type: none"> - Demonstrates exceptional problem analysis with creative insights and innovative approaches. - Environment representation exceeds requirements with enhanced details and complexity. Problem formation is comprehensive, insightful, and fully aligned with the task goal. (8)
	Technical Competency (12)	<ul style="list-style-type: none"> - Unable to apply relevant technical knowledge and skills. - The provided solution shows minimal structure and critical unresolved errors. No evidence of successful execution was observed. (0-2)	<ul style="list-style-type: none"> - Provides a partially functional solution with errors impacting results. - The provided solution lacks clarity or effective structure in solving the relevant problem. (3-5)	<ul style="list-style-type: none"> - Provides a functional solution meeting most requirements, with minor issues but a sound technical foundation. - The provided solution is generally structured and demonstrates a solid understanding of environment representation and agent program. (6-8)	<ul style="list-style-type: none"> - Provides a fully functional solution, meeting all requirements as intended and free of errors demonstrating effective structure. - The provided solution is well-demonstrated with clear and effective structure, showing strong technical understanding of deterministic environment and search strategies. (9-10)	<ul style="list-style-type: none"> - Demonstrates exceptional technical competency, exceeding all requirements for addressing the defined problem. - The solution is highly efficient, well-structured, and fully functional, highlighting technical sophistication, demonstrating innovation and relevant technical mastery. (11-12)
	Application of Theoretical Concepts (12)	<ul style="list-style-type: none"> - Unable to apply relevant theoretical concepts or models accurately. - Significant errors in the application of models and heuristics. (0-2)	<ul style="list-style-type: none"> - Unable to clearly explain theories and models. - Some inaccuracies or omissions impede understanding of heuristic function(s) and computational model(s). (3-5)	<ul style="list-style-type: none"> - Clearly explains and applies relevant theoretical concepts with minimal errors. - Able to justify heuristic (selection) based on task goal and any computational model constraint(s) to support the solution adequately. (6-8)	<ul style="list-style-type: none"> - Provides a detailed and accurate application of theoretical concepts. - Applies heuristics (selection) critically and provides relevant data-driven justification. Theoretical choices are well-explained and fully aligned with task goals and the provided solution. (9-10)	<ul style="list-style-type: none"> - Demonstrates advanced critical thinking by extending beyond standard theoretical concepts. - Applies computational models innovatively and explores advanced heuristics, demonstrating comprehensive and relevant data-supported theoretical justification and evaluations. (11-12)
	Presentation of Documentation (8)	<ul style="list-style-type: none"> - Unable to present report and code documentation in a clear, structured manner. - Lacks proper citations, visuals, code comments, or consistent formatting. (0-1)	<ul style="list-style-type: none"> - Unable to maintain consistent clarity throughout the report with the required structure. - Limited proper use of visuals (e.g., graphs, tables, figures, flowcharts) and inconsistent citation style. - Code comments and annotations are sparse or disconnected from the report. (2-3)	<ul style="list-style-type: none"> - Able to present a clearly structured report as required, with effective visuals (e.g., graphs, tables, figures, flowcharts) and citations. Minor issues with clarity or formatting. - Code comments and annotations are provided and mostly align with the report. (4-5)	<ul style="list-style-type: none"> - Presents a professionally structured report with effective visuals (e.g., graphs, tables, figures, flowcharts), consistent formatting, data-driven analysis and comparison, and proper citations/reference where applicable. - Code comments and annotations are clear and closely aligned with the report explanations. (6-7)	<ul style="list-style-type: none"> - Demonstrates exceptional presentation quality meeting professional standards. Visual aids (e.g., graphs, tables, figures, flowcharts) are high-quality and clearly support the explanation of the environment representation and solution in line with the required structure and analytics. All references and citations are correctly formatted and consistently applied. - Code comments and annotations, and report explanations are perfectly aligned and detailed. (8)
	Bonus Task: Graphical User Interface (GUI) (extra 2 marks of any attained marks, allowing a max. of 42)	<ul style="list-style-type: none"> - No attempt or insufficient evidence of delivering the required GUI bonus elements, or no valid narrated demo-video provided. (0) - Demonstrates a fully functional program with some of the required GUI bonus elements only, and valid narrated demo-video provided. (1) - Demonstrates a fully functional program with all required GUI bonus elements, and valid narrated demo-video provided. (2) 				