ASSESSMENT 1 - BRIEF	
Subject Code and Title	SDM404 Software Development Management
Assessment	Project Proposal and implementation Plan
Individual/Group	Group
Length	Project Proposal and implementation Plan (8-10 pages) Individual contribution report (500 words +/- 10%)
Learning Outcomes	a) Critically examine and articulate the fundamental project management principles to plan and oversee software development projects effectively. b) Evaluate modern software project management practices to determine the most suitable methodologies for various software development scenarios. c) Formulate strategies to manage software project risks effectively focusing on technical excellence within multidisciplinary teams. d) Develop and justify comprehensive estimates for software project effort, cost and scheduling to support effective decision making and resource optimisation.
Submission	Due by 11:55pm AEST/AEDT Sunday end of Week 4.
Weighting	20%
Total Marks	100

Assessment Task

In this assessment, you are required to work with your group members to create a software project proposal and plan, detailing the project's objectives, resources, schedule, and risk management. You also need to submit a contribution report outlining your tasks, challenges, and solutions.

Please refer to the **Instructions** for details on how to complete this task.

Context

This assessment task involves creating a software project proposal and plan, which are essential for obtaining approval from stakeholders and guiding project execution. It focuses on project management skills, such as estimating schedules, costs, and resources, as well as managing risks.

You will demonstrate and refine your skills in planning, risk management, resource allocation, and quality assurance. The assessment consolidates your understanding of project management principles in software development and prepares you for real-world scenarios. The contribution report further develops your problem-solving and teamwork skills.

Task Instructions

1. As a group, discuss and choose a software application project to plan and execute for this and the upcoming assessments in this subject. You must seek approval for your project from your learning facilitator.

2. Use the **Software project proposal and implementation plan Template** attached at the assessment area to create a detailed software project plan for the application you intend to develop. You can add/remove sections in the template (with the approval of your learning facilitator) depending on the applicability on your project. Your plan must include:
   1) Clear estimates for **cost, effort, and schedule**, with an explanation of how these estimates were calculated.
   2) The **software engineering process** you will follow throughout the project.
   3) A comprehensive **risk management plan**, identifying potential challenges and how you will address them.
   4) A **quality management plan** outlining how quality will be ensured throughout development.
   5) A **resource allocation plan**, detailing how team members and tools will be used.
   6) Any other relevant information needed to support successful project execution within defined constraints.

3. Each student must submit an **individual contribution report** outlining their involvement in the development of the software project plan. In this report, you should:
   1) List **the specific tasks** and sections you contributed to.
   2) Describe any **challenges or difficulties** you encountered during the process.
   3) Explain the **solutions you explored and implemented** to address these challenges.
   4) Reflect briefly on your **learning experience** and any skills or insights gained through your contribution.
4. Your report should be approximately **500 words** and demonstrate both accountability and critical reflection on your role within the team.

Referencing

It is essential that you use current APA style for citing and referencing the sources that you use. Please see more information on citing and referencing guidelines on the Academic Success webpage.

Assessment Support

For a range of additional resources and support to help you complete your assessment, please consult the Study Support page on the Student Hub.

Academic Integrity

All students are responsible for ensuring that their submitted work is original, adheres to academic writing standards outlined in the Torrens University Academic Writing Guide, and is appropriately referenced according to the guidelines provided in the Torrens University APA Referencing Guide. Students need to have read and be aware of the Torrens University Australia Academic Integrity Policy, Academic Integrity Procedure and subsequent penalties for academic misconduct. For more information, please refer to the Academic Integrity guidelines and the Torrens University Library.

Students must also keep all required evidence in making an assessment; a copy of all submitted material and any assessment drafts.

Generative AI

Please refer to the Torrens University Library for guidance on the use of Generative AI. Please speak to your learning facilitator regarding the use of GenAI tools in your assessments.

Submission Instructions

Submit this task via Assessments > Briefs & Submissions in the main navigation menu in SDM404: Software Development Management. Please name your file using the following format:

- SubjectCode_Surname_FirstNameInitial_AssessmentNumber

e.g. SDM404_Jones_S_Assessment_1

Your marked assessment can be viewed in MyLearn.

Assessment Due Dates and Late Penalties

Assessments may be submitted on or before the due date. Late penalties apply for assessments that are submitted after the due date.

Refer to:

- Assessment Policy for Higher Education Coursework (HE) and ELICOS
Torrens University | Think Education
- Assessment Special Consideration Guidelines for Students (HE Coursework)
Torrens University | Think Education
- Student Hub for Assessment Extension Information.

Special Consideration

To apply for special consideration for a modification to an assessment task or exam due to unexpected or extenuating circumstances, please consult the Assessment Policy for Higher Education Coursework and ELICOS and, if applicable to your circumstance, submit a completed Application for Assessment Special Consideration Form to your learning facilitator.

Assessment Rubric

Assessment Attributes	High Distinction (Exceptional) 85-100%	Distinction (Advanced) 75-84%	Credit (Proficient) 65-74%	Pass (Functional) 50-64%	Fail (Yet to achieve minimum standard) 0-49%
Problem Description ***5%***	**Demonstrated a systematic and critical understanding of the software project.** Exceptional quality and completeness of presentation of introduction and overall description (e.g., project description, objectives, factors influencing software development).	**Demonstrated an advanced and integrated understanding of the purpose of the software project.** The software project description, objectives, and factors influencing software development were described in detail.	**Problem description is done nicely and the significance of the project is explained.** Demonstrated consistent understanding of the software project. Described the software project clearly. Discussed the objectives and factors influencing software development.	**Problem description is there but not clearly presented.** Provided al limited description of the software project and demonstrated limited understanding of context and/or purpose of the software project.	**Overall problem description is inadequate.** The document did not introduce the project topic and/or describe the software clearly and/or discuss the factors influencing the software development.
Scope of the project ***5%***	**Scope is comprehensive, highly ambitious, and innovative.** The project addresses all aspects of the problem with an exceptionally thorough and detailed approach. The scope goes beyond standard	**Scope is clear, well-defined, and highly focused.** The project addresses most aspects of the problem in a thorough manner. There is evidence of critical analysis and a deep understanding of the topic. The project demonstrates a clear and	**Scope is clearly defined but somewhat limited.** The project addresses the key aspects of the problem, though some areas may be underdeveloped or less detailed. The approach is solid, with a competent understanding of the	**Scope is somewhat defined but lacks clarity or depth.** The project addresses the central problem, but several aspects may be underexplored or poorly developed. There is a basic understanding of the topic, but the project may be too	**Scope is unclear, poorly defined, or too narrow.** The project fails to address key aspects of the problem, or the approach is very limited and lacks depth. The understanding of the topic is superficial, with minimal critical thinking or

	requirements, demonstrating an advanced understanding and exploration of the topic, with original and creative contributions that add significant value to the field	logical progression, with a strong foundation that makes it insightful and valuable, though it may not go beyond expectations in terms of creativity.	subject, but it may lack the depth or breadth seen in higher grades. The project meets the basic requirements, with a moderate level of insight and critical analysis.	narrow in scope or surface-level in its analysis. The project meets the minimal requirements, though it lacks critical engagement or thorough exploration.	analysis. The project does not meet the essential requirements and demonstrates a lack of effort or inadequate engagement with the task.
Scope of the project ***10%***	**Exceptional work was done to identify the estimation process and producing good detailed schedules.** Exceptionally detailed and clear descriptions of the quality management process. Risk analyses and management is explained is an exceptional way.	**Identified the complete description about the features which are within the scope of the project.** Identified appropriate details about the features which are out of scope.	**Identified appropriately the scope of the project.** Identified appropriate details about the items which are out of scope. Clear description of risks and the risk management strategy.	**Adequate and somewhat complete description of the scope.** Identified minimum details about the scope.	**Poor and/or incomplete description of scope.** Scope is not clear. Out of scope Items are not clear.
Assumptions, Constraints and Risks ***10%***	**Assumptions, constraints, and risks are identified, analysed, and clearly articulated in a highly detailed and insightful manner.** The project demonstrates a sophisticated understanding of the underlying assumptions, potential constraints, and	**Assumptions, constraints, and risks are well identified and analysed.** The project includes a clear understanding of the assumptions and constraints, with a logical analysis of potential risks. There is a thoughtful consideration of how these factors might affect the project's outcome.	**Assumptions, constraints, and risks are addressed but with limited analysis or detail.** The project identifies some key assumptions, constraints, and risks, but they are only partially developed. There is a basic understanding of how these factors might influence the	**Assumptions, constraints, and risks are mentioned but not thoroughly addressed.** The project touches on some assumptions, constraints, and risks but lacks a clear or detailed analysis. There is minimal consideration of the implications of these factors, and the	**Assumptions, constraints, and risks are either not identified or are poorly articulated.** The project lacks a clear understanding of the assumptions, constraints, and risks involved, or fails to address them entirely. There is little to no analysis of the factors that could

	risks involved. All key assumptions are critically examined, and the project includes proactive strategies for managing risks and constraints. The analysis is comprehensive, demonstrating the ability to foresee and address challenges effectively, often incorporating innovative solutions or mitigation strategies.	Risks are identified with corresponding strategies or measures to mitigate them, though some areas may lack the depth or consideration of alternatives seen in higher grades.	project, but the analysis may be superficial or lack depth. Some assumptions may not be clearly stated, and risk management strategies may be either vague or overly simplistic.	identification of risks may be incomplete or overly general. Assumptions may not be fully explained, and there is little or no clear strategy for managing risks or constraints.	impact the project. Assumptions are not stated, risks are ignored, or the project demonstrates a fundamental misunderstanding of how these elements might affect the outcome.
Software Development Process ***10%***	**Selection of the software development process is highly justified, comprehensive, and tailored to the project's specific needs.** The chosen process is meticulously analysed, with a clear and well-reasoned rationale for why it is the best fit for the project's objectives, constraints, and scope. The student demonstrates a deep understanding of various software development methodologies and makes an informed, strategic choice. There is evidence of a highly thoughtful	**Selection of the software development process is well-justified and appropriate for the project.** The chosen process is clearly articulated and matches the needs of the project. The student shows a solid understanding of the available methodologies and provides a strong rationale for the selection. The decision-making process includes a consideration of various approaches and addresses key factors like project size, complexity, and time constraints. While not as detailed as the HD level, the selection is sound and well-reasoned, demonstrating a	**Selection of the software development process is appropriate but may lack depth in analysis or justification.** The chosen process generally suits the project's needs, but the rationale behind the decision may be underdeveloped or somewhat vague. The student demonstrates an understanding of the methodology, but the analysis of alternatives and the justification for the choice may be superficial. Key factors such as project scope, timeline, or risk management are not fully explored in relation to the	**Selection of the software development process is made but lacks clear justification.** The chosen process may be acceptable for the project, but there is little explanation of why it was selected over other potential methodologies. The analysis may be minimal, and the decision is not thoroughly linked to the specific needs or constraints of the project. The process may be basic, with little consideration of how it will support project goals, timelines, or other critical aspects.	**Selection of the software development process is either not made or is completely inappropriate.** The chosen process is either unsuitable for the project or not justified at all. There is little to no understanding of how different software development methodologies would impact the project. The project fails to demonstrate an awareness of the various processes that could have been applied, or the selected process is misaligned with the project's scope, constraints, or goals

	consideration of the pros and cons of different approaches, with potential trade-offs clearly addressed. The application of the process is innovative and effectively supports project success.	clear alignment with the project's objectives.	selected process.		
Technical Plan ***10%***	**The technical plan is exceptionally detailed, well-organized, and demonstrates a clear, logical approach to project execution.** The plan addresses all technical aspects of the project with thorough precision, including architecture, tools, technologies, and methodologies. Each element is justified with strong reasoning, and the plan anticipates potential technical challenges while offering innovative solutions. The plan is comprehensive and provides clear steps for development, testing, deployment, and maintenance. It shows deep technical understanding and	**The technical plan is well-developed, with a clear and logical structure that outlines key technical aspects of the project.** It addresses the core technical requirements, including technologies, frameworks, and methodologies, and provides a solid justification for the chosen approaches. The plan includes some consideration of potential challenges and solutions, though it may not be as comprehensive or proactive as the HD level. The execution steps, including development, testing, and deployment, are clear and realistic, showing a strong understanding of the technical needs of the project.	**The technical plan is clear but lacks detail or depth in some areas.** The plan includes the basic technical elements needed for the project, such as technologies and methodologies, but may not address all aspects in sufficient detail. Some areas may be underdeveloped, and the justification for certain choices may be vague or generic. Potential challenges are briefly mentioned, but the plan may not provide comprehensive strategies for addressing them. The plan includes a general outline for development and testing but lacks the level of specificity or foresight seen in higher grades.	**The technical plan is minimally developed, addressing only basic technical elements of the project.** The plan outlines some key technologies or approaches but lacks depth in its explanation or justification. There may be limited consideration of potential technical challenges, with few or no solutions proposed. The plan provides a basic outline for project execution, but it lacks the detailed steps or analysis needed to effectively guide the development process. Some essential technical considerations might be overlooked or underexplained	**The technical plan is either not provided or is highly incomplete or inappropriate for the project.** The plan lacks detail and does not address the necessary technical aspects of the project. Key elements, such as the technologies, methodologies, or execution steps, are missing or fundamentally flawed. There is little to no consideration of potential challenges, and the plan lacks any meaningful approach to managing technical issues. The technical plan fails to provide a realistic or workable framework for the project's success.

	foresight in addressing both current and future project needs				
Project Schedule ***20%***	**The project schedule is highly detailed, realistic, and well-structured, with clear milestones and deadlines**. The schedule is thoughtfully planned, with all phases of the project broken down into manageable tasks. Each task is clearly defined with appropriate time allocations, and dependencies between tasks are accurately represented. The schedule anticipates potential delays or bottlenecks, offering proactive solutions or buffers. It demonstrates a thorough understanding of the project's scope and resources, and it ensures that the project is completed within the desired timeframe while maintaining high quality.	**The project schedule is well-organized, with clear milestones and task breakdowns, showing a realistic approach to project timing**. Key tasks are identified with reasonable deadlines and appropriate sequencing. The schedule covers all essential phases of the project, with some consideration of task dependencies. There is a good understanding of the project's scope, and the schedule is achievable, though it may not be as detailed or flexible as in the HD level. Potential risks or delays are considered, though the schedule may not fully address all contingencies.	**The project schedule is clear but may lack detail or consideration of some dependencies.** The schedule includes basic milestones and timelines for major tasks, but it may be overly simplistic or lacking in clear breakdowns for all tasks. Some phases of the project may not be fully planned, or the task durations may not be realistic. While the schedule provides a general outline of project timing, it may lack flexibility in accommodating unforeseen delays, and there may be insufficient attention given to task dependencies or resource allocation.	**The project schedule is minimally developed and may lack clarity or realistic timeframes.** The schedule covers only basic phases of the project with minimal breakdown into tasks or milestones. The timeline may be overly optimistic or lack sufficient detail to guide the project effectively. There are few or no task dependencies considered, and the schedule may not accurately reflect the true scope or complexity of the project. The schedule lacks buffers for potential risks or delays, and it may not be achievable or practical in some areas.	**The project schedule is either missing or highly inadequate.** The schedule is either not provided at all or is unrealistic and incomplete. Key tasks and milestones are either not identified, or their time allocations are impractical. The schedule fails to reflect the full scope of the project, and there is no consideration of task dependencies or potential risks. The project timeline is either too vague or overly ambitious, making it unlikely that the project will be completed within the given timeframe.
Budget Estimates	**Budget estimates are**	**Budget estimates are well-**	**Budget estimates are clear**	**Budget estimates are**	**Budget estimates are either**

10%	**highly detailed, realistic, and thoroughly justified.** All potential costs, including resources, tools, labour, and contingencies, are accounted for with precise figures and a clear rationale. The budget is comprehensive and well-structured, demonstrating a deep understanding of the project's financial requirements. Potential risks that could impact the budget are anticipated and addressed with buffer allocations. The estimates reflect a strategic, well-researched approach to resource allocation, and the budget is designed to ensure the project's success while staying within financial constraints.	**developed, reasonable, and appropriately justified.** The main cost components of the project, including resources, tools, and labour, are clearly identified with adequate figures and sound reasoning. The budget is realistic and covers essential expenses, though it may lack the level of detail or foresight found in the HD level. Potential risks and contingencies are considered but may not be as fully accounted for. The project demonstrates a solid understanding of the financial needs, with a clear plan to manage costs effectively.	**but may lack some detail or depth in justification.** The project includes basic cost estimates for major components like resources, tools, and labour, but some areas may be underdeveloped or lack precise figures. The budget is generally realistic but may not fully account for all potential costs or contingencies. There may be minimal consideration of financial risks, and some estimates may be vague or overly generalized. The budget provides a general sense of project costs but could benefit from more in-depth analysis.	**minimally developed, with some key elements missing or unrealistic.** The budget covers basic costs but may not include all necessary components, such as resources, tools, or labour. The estimates may be overly simplistic, with minimal justification or explanation of cost allocations. Some areas may be vague, and the budget may not fully reflect the project's financial needs. Potential risks or unexpected costs are not adequately considered, and the estimates may not be realistic given the project scope.	**missing or highly inadequate.** The budget is either not provided or fails to account for key costs such as resources, tools, or labour. The estimates are unrealistic, incomplete, or entirely absent, making it impossible to assess the project's financial feasibility. There is no clear justification for the costs provided, and the budget does not demonstrate an understanding of the financial needs of the project. Potential financial risks or contingencies are ignored or completely overlooked.
Clarity and Presentation of the report ***5%***	**Report is exceptional. The underlying logic was clearly articulated and easy to follow.** Words are chosen that precisely express the	**Report is well organised and clearly written.** Logic or flow of ideas is easy to follow. Words are well chosen. Diagrams are consistent with	**Report is organised and clearly written for the most part. In some areas, the logic or flow of ideas was difficult to follow.** Words are well chosen with	**Report is organised via topic/flow, but in some areas, it is difficult to follow the flow of ideas.** Words can be further improved. Some diagrams	**Report lacked an overall organisation. Reader had to make considerable effort to understand the underlying logic and flow of ideas.** Diagrams were absent or

	intended meaning and support reader comprehension. Diagrams or analyses enhanced and clarified presentation of ideas. Sentences are grammatically correct and free from spelling errors.	the text. Sentences were grammatically correct and free from spelling errors.	some minor improvements needed. Diagrams were consistent with the text. Sentences were mostly grammatical and only a few spelling errors were present, but they do not hinder the reader.	were not well explained. Grammatical errors impede the flow of communication.	inconsistent with the text. Grammatical and spelling errors make it difficult for the reader to interpret the text in places.
Contribution report 15%	**Report is exceptional in organisation and structure.** Contribution to the process was described in an exceptional way with emphasis on the important contributions made to the process. Very good analysis of the problems faced and good discussion of the proposed solutions and good reasoning for the choice of the applied solution. Sentences are grammatically correct and free from spelling errors	**Report in total is well structured and organised.** Clearly identified own contribution to the whole planning process with detailed description of the problems faced, solutions adapted and reasons for the choice of these solutions. Free from spelling and grammatical mistakes	**Report is well structured and organised for the most part.** Detailed description of own contribution to the planning process, problems faced and solutions Few spelling/grammatical mistakes that does not affect the flow of the document.	**Some parts of the report are structured in a good way but others are not.** A good level of details is given about own contribution, problems faced and solutions. Report contains some grammatical/ spelling mistakes that would interrupt the flow of the document.	**Report is poorly structured.** The report lacked a lot of details about own contribution to the preparation of the plan and the problems faced and solved. Report contains a lot of spelling and grammatical mistakes Word count is not met