Assessment details.

Prepared by Varun Mathur, Alan Dorin, Daniel Jitnah Version 06092024

Final project report (Group submission)

35%, Due Monday 28 October 2024 11:55 pm, week 14

Learning Outcomes

- 1. Work effectively in collaborative teams.
- 2. Explain and reflect upon the purpose, operation, success and value of the developed project in writing and orally.
- 3. Write a report explaining the methodology, outlining their contributions and the contributions of others, and documenting the developed project from appropriate perspectives, for instance, that of a user, researcher or developer.

Assignment Specification

Introduction

Team members must contribute to a single, cohesive, well-structured and professionally formatted final project report submission. Ensure the submission reads as one coherent document and not as a copy-paste of separate, poorly related sections created by team members working in isolation. To achieve this, it is suggested that:

- The team agrees early on overall formatting, writing and diagram style and content arrangement.
- The team plans how to allocate sections to be written / diagrams to be drawn by each contributor.
- A team member acts as the overall document proof editor and style wrangler before submission.

Team members should contribute to one single team report. The report will cover several aspects of your project. It is important that it is written cohesively and is well organized. This means that the content included must be in the correct section, appropriately labelled, and logically organised. For example, content related to the project outcome should be primarily discussed in a section titled "Outcomes".

Length of report

- 7500 12,500 words (~2500 words per team member).
- Variation +/- 10% in word count from this target is acceptable.
- Word count excludes text in figures, tables, source code, cover sheet, references, appendices and annexes.
- State the word count clearly on your submission cover page.

Structure of the Final Project Report

It is important that the students consider the following 2 points when writing the report relating to their own particular team project.

- FIT3162 (Computer science project): provide an explanation of the computer science and software development aspects of your project (e.g., coding, version control, bug tracking).
- FIT3164 (Data science project): provide relevant information about the data science aspects of your project, such as data pre-processing, visualisation, data transformation, and the methodology used for the data analysis.

1. Front matter

- a. Title sheet, table of contents
- b. Team member names
- c. Word count
- d. Other key elements may be added here at the discretion of individual project teams

2. Introduction

- a. Introduce the report and its contents.
- b. Introduce the project and its aims.

3. Project background

- a. Provide background information needed to understand the project and explain its rationale.
- b. Update the literature review from your Project Proposal (FIT3161/63) by summarising previous related work and relevant literature.
- c. This section may borrow from your FIT3161/63 submission, but it must contain at least some improvements. Indicate improvements by using dark blue as a text colour.

4. Outcomes

Critically discuss your project outcomes, being sure to include text on the following:

- a. Explain what has been implemented.
- b. Present the results, achievements and/or the delivered product.
- c. Explain how project requirements are met by your deliverables.
- d. Justify decisions made.
- e. Discuss your project results (E.g., how do your deliverables compare to previous results or products? How do your deliverables fit within the context of the area your requirements addressed? How do they extend the state of the art? How do they solve a problem or meet a need?)
- f. Outline and explain the limitations of your project outcomes.
- g. Discuss potential improvements and future work that could usefully extend or improve your project's impact.
- h. Discuss any other outcome-related issue of relevance and interest.

5. Methodology

This section describes how you developed your project (not your project management approach).

- a. Explain the final project design.
- b. Discuss deviations from the initial design proposed in FIT3161/63.
- c. How was the design implemented? What software and tools were used? What activities were carried out?

6. Software Deliverables

- a. Summary of software deliverables
 - i. Provide a brief description of the deliverables. (E.g., a full executable program, library, website, web application, source code).
 - ii. Provide illustrative screenshots and describe the use of your software (A complete set of screenshots should be included in the separate user guide assignment. The material here is to provide a brief visual overview of the software's look and feel, professionalism, features and your overall project outcome).

b. Software Quality Summary

Summarise and critically discuss how the following software qualities are addressed by the software. Include a discussion of shortcomings. (e.g. mention potential security issues, issues with usability that could be improved etc.).

- i. Robustness
- ii. Security
- iii. Usability
- iv. Scalability
- v. Portability
- vi. Maintainability

c. Sample Source Code

- i. Provide 50-100 lines (total) of sample source code **in an appendix** that is representative of your source code overall.
- ii. Demonstrate in this code full inline documentation and **include at least one function** and its call.
- iii. Include in this code some lines that show how one or more specific software requirements are satisfied.
- iv. The code sample does not need to be consecutive lines of code.
- v. The sample code does not count towards the word limit.

7. Software and Project Critique

- a. Critically discuss how well your project was executed overall.
- b. Compare the realised project outcome to the initial project proposal (FIT3161/63). Discuss how your thinking changed during project execution.

- c. Note that you do not have to follow the initial proposal closely to earn good marks, but you need to explain how and why you deviated from the initial project proposal if this is the case. Or, if you did not deviate, why do you think you were successful in remaining on your initial path.
- d. If you believe that your project was unsuccessful overall, thoroughly discuss why. What could you have done differently? For example, were there serious limitations in the software tools you used? Was poor project management to blame? What could *you*, as a team, have done differently?

8. Conclusion

a. Provide a summary of your report's key contents and the outcome of your project.

9. Appendices

- a. Sample source code refer to the Software Deliverable Section 6 c. above for details.
- b. Any other relevant material that the team wishes to provide.
- c. The Appendices do not count towards the document word limit.

10. References

- a. Provide a complete list of references cited in the report. List only references cited in the report.
 Consider using reference management software, such as EndNote, BibTeX or Zotero to generate a correctly formatted reference list.
- b. Provide full bibliographic details of references in APA format.
- c. The reference list does not count towards the document word limit.

Report Style and Presentation

Excellent written and diagrammatic communication skills are expected. The document should be formatted and presented at a professional level. All text sections, figures and diagrams should be clearly structured, labelled and numbered.

You do not need to follow the above structure strictly in regard to the subsections. Re-order or adjust subsections as appropriate to your project. Exercise judgment as to what is most important to discuss in relation to your project. Not all projects will need to address all the subsections shown above. However, the numbered top-level sections: 2. Introduction, 3. Background, 4. Methodology, 5. Outcome, 6. Software Deliverable, 7. Software and Project Critique, 8. Conclusion, 9. Appendix and 10. References are required.

Addenda (Optional)

You may include in an addendum any relevant work completed by a team member that was not included in the main report submission. For example, if a section of the report or a diagram was produced by a

team member but subsequently replaced by other content, the replaced content may be included in an addendum. **Clearly indicate who produced the replaced content and why it was omitted**. This will allow teaching staff/markers to understand how much work was completed by each team member.

Team Members' Contribution Declaration

Team members' contributions must be declared in the Team Members Contribution declaration spreadsheet.

IMPORTANT: Failure to include a final Team Members Contribution declaration will incur an automatic 10% penalty on the final mark for the assessment.

Make sure that <u>ALL</u> team members need to click the <u>SUBMIT button</u> for the submission to be marked for grading.

- 1. 1 week before submission or earlier: Pre-declaration
 - a. Download the contribution declaration spreadsheet from Moodle.
 - b. Fill it in and submit it on Moodle at least 1 week before the assessment submission date.
- 2. On submission day: Final declaration
 - a. Update the Pre-declaration spreadsheet with actual contributions.
 - b. Submit the updated declaration form on Moodle on the 'FINAL- Team contribution (Final Project report)' link by the same deadline.

Marking

All team members are expected to make equitable contributions to this team task. However, marks are adjusted if the contributions of individual team members differ significantly.

Marking Guide

This assignment will be marked over 100 points but contribute 35% to the final unit marks.

	Assessment	Total
	Criteria	marks
1.	Front cover sheet	2
2.	Introduction	8
3.	Project background	10
4.	Outcomes	20
5.	Methodology	15
6.	Software deliverables	15
7.	Software and project critique	10
8.	Conclusion	5
9.	Code listing in appendix	5
10.	References	5
11.	Style and presentation	5
	Total	100

(*) Discussion points may also be included in other sections if they relate directly to the particular section. Please note, keep your discussions focussed on your own project and not generic to any project.

Content that may be included in an appendix will be assessed as part of the section to which it relates. Appendix content must relate directly to content in the main body.

Please note, a detailed marking rubric appears under the Additional Files section on Moodle below the assignment specification.

Additional Notes and Suggestions

While this assignment may appear as an overwhelming task, careful planning by teams in the past, has shown that this task is very manageable.

- 1) Spend some time carefully planning the write-up.
- 2) Consider carefully what material needs to be included.
- 3) Carefully prioritize what is more important to include and add detail later if needed.
- 4) You need to read this specification as pointers to what is likely to be relevant to your project and what you need to include and not as a set of "questions" you need to answer.
- 5) Don't feel you need to cover everything in the assignment specification. Each project and each team's execution of the project will generate different outcomes and experiences. Therefore each team report will be specific to the project. Markers will NOT be looking for a specific "solution" to the problem you tackled. Instead, they will look for how well you understand and explain what you have been doing and how you relate your project execution to applying appropriate project management principles, computing principles and technologies in delivering a solution.
- 6) Discussion of decisions and results is important.
- 7) In planning your outcome sections, remember that you are trying to "satisfy a set of requirements" with your software.
- 8) Content in structured point form is acceptable instead of a long narrative, but the use of clear language is important as well.
- 9) With the Project Background section, literature review, you should adjust the content to support what **you have done**, while the FIT3161/63 literature review was used to support what **you will do.**

- 10) It is suggested that you share the task of writing the report based on the marks allocated to each section. So each member would ideally contribute approximately the same number of marks. However, the number of words contributed should also be considered. As a guide, each team member would be expected to contribute about 2500 words (roughly 5 pages, single-spaced lines).
- 11) You should allocate additional effort for other material: cover page, appendix, references etc, and reviewing, proofreading and final formatting.

Late Submission

- 1. Submission must be made by the due date. Late submission penalties will be deducted according to Monash University policy. (See Moodle, "Additional information and resources" section).
- 2. If you believe that your assignment will be delayed because of circumstances beyond your control such as illness, apply for an extension prior to the due date. Extensions and individual alterations to the assessment regime will only be considered using the University Special Consideration Policy (See Special Consideration website, and follow the procedure).

Use of Generative AI tools in Projects and Assignments

See this assessment's Moodle module for the policy regarding use of GenAI in this unit.