Tin: A Language for the RISC-V Architecture

Team Software Engineering (2122 CMP2804M-2122) Assignment 3

(max 6500 words)

Introduction (max 200 words) (5%)

You have submitted a report with content in all required sections and appropriate language has been maintained throughout. The document may be verbose, but appropriate detail has been included.	You have produced a document with all required sections complete, that has clearly been proof-read and checked for errors. Presentation is neat and professional, and word-counts have been maintained throughout. Additional preamble and front matter have been added to improve readability.	You have produced a document with all required sections complete, that has clearly been proof-read and checked for errors. Presentation is neat and professional, and word-counts have been maintained throughout. Additionally, the document shows a mature understanding of domain research, and has referenced appropriate academic and non-academic sources throughout.	You have produced a document with all required sections complete, that has clearly been proof-read and checked for errors. Presentation is neat and professional, and word-counts have been maintained throughout. Additionally, the document shows a mature understanding of domain research, and has referenced appropriate academic and non-academic sources throughout. All arguments are concise and made with reference to appropriate research. All images are well presented and clear.

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Introduction (max 200 words) **1**

Software Engineering (max 800 words) **3**

Implementation (max 2000 words) **3**

Testing Strategy (max 1500 words) **3**

Release (max 500 words) **3**

Evaluation (max 1500 words) **4**

Group Work Conclusion (max 800 words) **4**

Artefact and Media Materials (Links) **4**

References (no limit) **5**

Software Engineering (max 800 words) (10%)

You have detailed some of your software engineering decisions and process, but this is poorly justified.	You have detailed your software engineering decisions and process. The decisions you have made may not be ideal for your project, but you have made some attempt at justification.	You have made good software engineering decisions, and your process is clearly justified. You have detailed an approach to your work that would be suitable in a commercial setting.	You have made good software engineering decisions, and your process is clearly justified. You have detailed an approach to your work that would be suitable in a commercial setting. In addition, you have clearly considered alternatives.

- Describe the software engineering strategy
- Include a discussion of what software development approach you took (Kanban, Scrum, Agile, Waterfall etc).
- Why we felt that strategy was appropriate for your project.
- Include diagrams regarding how your software was constructed, including references to any dependencies or libraries.
- This section should clearly detail how you have planned to build your artefact.
- Should also describe how you implemented (and used) version control.

Implementation (max 2000 words) (40%)

Implementation and Artefact (40%)	The team has produced an incomplete artefact, or an artefact that could have been produced by a single student in the same amount of time. The process is documented, but the documentation focuses on the end product rather than the process. Software documentation is weak or lacking. The team have produced a short video that details the artefact in operation.	The team have produced an artefact that works, and has clear engagement from each member of the team. The artefact is complex, or developed enough to justify a year-long engagement from a team of students, but may have elements that are unfinished or still in the prototype phase. The implementation process is documented, but decisions are poorly justified. Software documentation is present, but lacking in detail. The team have produced a short video that details the artefact in operation.	The team have produced a completed artefact that has clear engagement from each member of the team. Core elements of the artefact are polished and presentable as you would expect from a completed project. The implementation process is documented throughout, and important decisions have been justified with clear references to literature or industry standards. Software documentation is well prepared, presentable and complete. The team have produced a short video that details the artefact in operation, which could be used to promote the project.	The team have produced a completed artefact that has clear engagement from each member of the team. It is clear through the documentation how each team-member's skills have been best utilised as a resource within the development of the artefact. Core elements of the artefact are polished and presentable as you would expect from a commercial project. The implementation process is documented throughout, and important decisions have been justified with clear references to literature or industry standards. Software documentation is well prepared, presentable and complete and could be delivered to a client. The team have produced a short video that details the artefact in operation, which could be used to promote the project.

- This section should clearly explain what you have built, and how you have built it.
- Justify the approach you have taken, and the toolsets you have chosen to use.
- Should detail any challenges in implementation that you faced, and how these were overcome
- Code snippets can be used to explain any complex or novel ideas.
- This section should justify the detail and complexity of the project.
- Explaining why it was worthwhile building, and how we justify it as a year-long team project.

Testing Strategy (max 1500 words) (10%)

Testing (10%)	The team has described a general testing strategy, but it is a weak engagement. The strategy may only focus on the final product, or one specific element of the system. Results (if included) are limited.	The team have described an appropriate testing approach, but this is limited and may only focus on the final product. Results are included, and the documentation makes it clear how the team have responded to issues that have arisen.	The team have described an appropriate testing strategy and have shown evidence of ongoing testing throughout the project. Results are included, and the documentation makes it clear how the team have responded to issues that have arisen.	The team have described an ongoing testing strategy that would be appropriate for a commercial setting. The results of the tests are well documented, and it is clear how testing may have implemented ongoing implementation decisions.

- This section you should explain what your testing strategy was and how we implemented it.
- We will need to see evidence of a testing strategy that was used throughout the development cycle of the software artefact.
- Should include results of tests, and discussion about how issues were managed.

Release (max 500 words) (10%)

Release (10%)	The team has provided date-stamped evidence of a release, however, this was late in the module leaving limited opportunity for evaluation. The release plan was limited or lacking consideration.	The team has provided date-stamped evidence of a release which provided ample time for a proper evaluation. There is some evidence of a release plan but this fails to properly account for potential issues that may arise.	The team has provided date-stamped evidence of a release that provided ample time for a proper evaluation. Furthermore, the team clearly articulated a plan for the management of the release (including contingencies to respond to bugs/issues).	The team has provided date-stamped evidence of a release that provided ample time for a proper evaluation. Furthermore, the team clearly articulated a plan for the management of the release (including contingencies to respond to bugs/issues). The release plan is tied into the testing strategy, and there is clear evidence of a beta, or early release to further test/evaluate the artefact.

- This section you should describe how we released your artefact.
- Specifically, describe what platform you released it on and why that was an appropriate venue.
- Furthermore, describe what precautions you put in place to manage issues on release.

Evaluation (max 1500 words) (15%)

Evaluation (15%)	The team have undertaken an evaluation of their artefact. This appears to be rushed, or may focus largely on problems.	The team have undertaken an evaluation of their artefact. The evaluation is good, and describes positive elements and areas for improvement, but generally lacks detail.	The team have undertaken an evaluation of their artefact. The evaluation provides a detailed discussion of their released artefact. The evaluation is critical, and identified areas that could be develop should they continue to work on the project.	The team have undertaken an excellent evaluation of their artefact. The evaluation provides a detailed discussion of their released artefact. The evaluation is critical, and identified areas that could be develop should they continue to work on the project. Furthermore, the team have elicited feedback from users of the system.

- The evaluation will be partly from us, but should also include insights from users (reviews for example).
- Should include a discussion about how you could develop the artefact further in the future.

Group Work Conclusion (max 800 words) (10%)

Group Work Conclusion (10%)	There is some reflection, however this dwells largely on negative and aspects of your group engagement.	You have produced a group reflection that is critical, and identifies strengths and identifies areas that need improvement.	You have produced a group reflection that is critical, and identifies strengths and identifies areas that need improvement. In addition, you have made specific reference to the performance of individual group members. You have clearly responded to the group work reflection you produced in the interim report.	You have produced a cohesive critical reflection which details both the group's overall engagement, but also reflects on the performance of individual group members. The reflections are clear, and provide scope for an action plan that could improve the group's performance. You have clearly responded to the group work reflection you produced in the interim report.

- This section they expect a co-authored reflection on how your group has worked together throughout the project.
- Should include some discussion about your successes, as well as areas that you could improve.
- This should be an honest and critical statement, and should help you to set personal development targets for future work.
- As part of the reflection we should include a table which details each member's individual involvement in the work (as a percentage).

Artefact and Media Materials (Links)

- This should be in the form of a link to the platform that the final project has been released on.
- If your platform only hosts the executable, you should also provide a link to where the code can be accessed (GitHub for example).
- In addition, this should provide a link to some 'media materials' that could be used to promote your artefact to its target audience. This should include a video no longer than 2 mins long.

References (no limit)