

School of Engineering and Computing
Computing-Based UG Programmes

Honours Project marks
Develop & test style project

Student: Ironman

Supervisor: Richard Foley

Second marker: Iain Lambie

Honours year: 2010/2011

Date of report marking: _4_ / _5_ /11

Agreed summary of marks

Interim report	mark out of 20	_____
Honours report	mark out of 70	_____ 45.0/70 = 64% _____
Poster Presentation	mark out of 10	_____

Total mark out of 100 _____

Signed (Supervisor) _____

Signed (Second Marker) _____

Literature review update

This section is included to allow students to gain credit for improving their literature review following feedback on the interim report. Higher marks should be awarded where there is evidence of a substantial improvement in the students review or where there is little or no change and the initial review was of high quality. In general marks for the literature review relate to the identification of key issues and & proper referencing of literature relevant to project area. A review should be a concise and critical discussion of key issues and works relevant to project area. The literature review should clearly address the identified areas of the research question which is set out in the student's Introduction Chapter of the final report.

Grade	Description	Mark range
1 st	Excellent improvement. Student has gone beyond the comments on the original review and produced a very well integrated critical discussion with a high percentage of journal articles. <i>Or</i> Little or no change and initial review section in interim report was rated as 1 st class (in this case award the lower value 70)	70-100
2.1	Good improvement. Student has taken obvious note of the comments on the original review and produced a well-integrated critical discussion with a good percentage of journal articles. <i>Or</i> Little or no change and initial review section in interim report was rated 2.1. (in this case award the lower value 60)	60-69
2.2	Fair improvement. Student has taken some note of the comments on the original review and produced a discussion with some critical analysis and some journal articles. <i>Or</i> Little or no change and initial review section in interim report was rated 2.2. (in this case award the lower value 50)	50-59
3	Poor level of improvement. Student has taken little note of the comments on the original review. <i>Or</i> Little or no change and initial review section in interim report was rated 3. (in this case award the lower value 40)	40-49
Fail	No improvement. Student has taken no note of the comments on the original review. <i>Or</i> Little or no change and initial review section in interim report was rated Fail. (in this case award zero)	0-39

Mark awarded: 65

Comment:

There is an improvement in the number of sources used (49 from 36 in the Interim Report). There is also an improved structure and length/depth of review (whilst still 6 pages, it is a much smaller font with no whitespace and is an overall increase of a little over 50% in size). It should also be noted that to some extent this "Literature review" is following the correct emphasis in a "straight forward" D&T project. That is, it has a degree of emphasis on including a "technical" review of the technologies within it and less emphasis on the "so called" research element of the project. This is good and something which all D&T students should note (and try to follow). Students undertaking D&T projects must understand that a significant part of their literature based "investigation" is on the technology they are using (and often have to learn) if that is a "key" part of the project (as is the case with this project). Certainly it could be argued that his literature review chapter could have been a bit more detailed in it depth of discussion of these issues, but he is applying the correct emphasis. This is probably the reason why I have been a bit generous with this mark since, as I said, overall the review is a bit "light" in size.

Problem and systems analysis.

Marks relate to the detail of the analysis of the problem the project is trying to solve. This relates not just to the application the student decides to develop, but also the analysis of the specific problem (area) which this application is trying to investigate/provide a solution for and the existing issues it is endeavouring to deal with. Marks should also relate to the clarity and completeness of the statement of functional and non-functional requirements; however these cannot simply be stated. It is expected that the student would analyse the aim of the project and the findings of the literature review and through their discussion justify the functional and non-functional aspects of their development as appropriate and sufficient for investigating the technology and/or application which is at the core of their project's research question.

Grade	Description	Mark range
1 st	Excellent. A very clear, well structured and argued problem and systems analysis section. It provides a very clear and complete justification for the requirements incorporated within the development as well as a complete specification of requirements, both functional and non-functional. All arguments and decisions being backed up by supporting material and literature review conclusions as appropriate.	70-100
2.1	Good. A clear and well structured problem and systems analysis section. A good justification for the requirements incorporated within the development as well as a clear specification of requirements, both functional and non-functional, backed up by supporting material and literature review conclusions where appropriate.	60-69
2.2	Fair. A description of the problem and systems analysis is provided. Some justification for the requirements incorporated is presented, as well as a clear specification of requirements, both functional and non-functional. There are however some gaps in the analysis.	50-59
3	Poor. While some description of the problem and systems analysis exists it is in limited detail. The specification of requirements is incomplete and little justification is presented.	40-49
Fail	Very poor. Very limited or no description of the problem and systems analysis. Limited or no requirements.	0-39

Mark awarded: 62

Comment:

The student does make a very clear attempt to provide a proper justification for the key elements. This included the type of application, its underlying subject area and the key elements of functional and non-functional requirements it should follow. That said it did “peter out” a bit when he then simply ended by stating what he was going to include in the application, rather than give a bit more of the detail of the analysis of (for example) the existing set of Taekwondo apps he said he looked at. One could “see” where he was getting these requirements from, but one would have liked a more explicit discussion to “connect” these with his overall justification from the main part of this chapter.

Project Design, Implementation and Testing

Note: In order to fully review the quality of the development's construction (i.e. project's design, implementation and testing), a demonstration of the developed application must be given by the Student to the Supervisor and 2nd Marker. This demonstration should be undertaken at a mutually agreed time and place between the submission of the report and the Poster Presentation event. This demonstration should be a demonstration of the functionality of the software. The demonstration of the functionality should be planned and driven by the student. However during and after that demonstration, the staff involved will ask questions of the development. In that questioning, the staff would expect to be able to view the source code and ask student questions relating to it and its design and testing.

The marks relate to: the quality and clarity of the design of the solution (including its software architecture/technology implementation as appropriate); the clarity and detail of the explanation for the design choices; clarity of the description of problems and issues involved in the implementation. These design and implementation choices at both high and low level must be justified through reference to and appropriate combination of the problem analysis, literature review conclusions as appropriate. The student should be able to demonstrate that reasonable testing of the logic and functionality of the development has been undertaken.

Grade	Description	Mark range
1 st	Excellent. A well presented and original/innovative solution which clearly fits the problem/task described in the earlier sections and is very well supported by detailed justification of all aspects of its design and implementation, with clear and explicit linkage made to conclusions of the literature review/problem analysis. A clear and detailed explanation of the issues involved in selecting the design and the problems experienced and how these were addressed. The development should have significant functionality and good quality design/coding (as confirmed through the demonstration) and these aspects should be also be well-presented in the associated elements of the final report.	70-100
2.1	Good. A well presented solution which clearly fits the problem/task described in the earlier sections and is clearly justified by direct reference to the findings of the literature review/problem analysis. A clear explanation of the issues involved in selecting the design and the problems experienced and how these were addressed. The development should have sufficient functionality and quality of design/coding (as confirmed through the demonstration) and these aspects should be also be clear from the associated elements of the final report	60-69
2.2	Fair. A solution which fits the problem/task described in the earlier sections with some justification given, which references the findings of the literature review/problem analysis. The student provides some explanation of the issues involved in selecting the design and the problems experienced and how these were addressed. Again a combination of the demonstration and final report should be used to determine this grade. However, a good quality of functionality/design/implementation (as confirmed through the demonstration), but which is accompanied by a poor quality in its reporting can also still be given a grade in this range.	50-59
3	Poor. A weak solution which inadequately fits the problem/task described in the earlier sections and is weakly justified through the accompanying report. The student provides little explanation of the issues involved in selecting the design and the problems experienced and how these were addressed. If the development has at least some realistic features relating to the initial problem, reasonably coded, then one would expect a bare pass to be given, even if there was a very poor quality in the accompanying report.	40-49
Fail	Very poor. The solution does not fit the problem/task described in the earlier sections and little/no justification is offered. The student provides little or no explanation of the issues involved in selecting the design and the problems experienced and how these were addressed. If the student has no meaningful development to demonstrate which can reasonably be related to the initial project aim, then one would expect a grade in this range, no matter the accompanying report sections.	0-39

Mark awarded: 65

Comment:

The student clearly has demonstrated a systematic approach to the development of the application. Again more of this could have been given with a more detailed discussion within the report. The

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application is probably still a bit limited, but it does exhibit the basic core functionality. To be honest since his application has a clearly defined set of high level components, I would have thought that he should have structured the presentation of this in his report under each of these distinct headings so that the implementation comparison between each development environment was clear. (Possibly he miscalculated just how much time it would take to develop this in the final write-up?) Anyway, his actual demonstration showed that he clearly understood the two development environments and their pros and cons and that he had developed a reasonable solution to meet the objectives of the project.

Evaluation, Discussion, Conclusions and further work:

The student may have a separate Evaluation section and Conclusion section in their report, or it may be a single larger combined section. It would not, however, be expected that a D&T project would have the same in-depth (and subsequent) evaluation as other project types. However, in relation to the emphasis of the Evaluation aspect, it should be an evaluation of the development as appropriate as a potential solution to the problem or as a means of enabling the investigation of the solution approach which is being demonstrated through the development and its application in a “realistic” setting. The development of the evaluation “instrument”/environment or criteria should also be discussed, presented and justified.

In terms of the Finals conclusions of the project, the marks relate to: the degree to which the student summarises and explains the outcome of their project, the degree to which they put their results in the context of what is known about the topic area; the extent to which they discuss the relevance of the results to the stated research questions/hypotheses; the extent of the critical analysis of their own work, the quality and appropriateness of the suggested areas for further study.

Grade	Description	Mark range
1 st	Excellent. Thorough, and comprehensive evaluation given which is clearly described, discussed and justified. There should also be a thorough, concise and critical evaluation of the results of the project in the context of what is known about the topic area. Good discussion about the meaning of the results in the light of the work of others. A clear and constructive critical analysis of the students own work, including the project results, but also the execution of the project methodology. The discussion clearly identifies the extent to which research questions were addressed and lays out interesting and innovative areas for further development/research. The student should set out the possible implications which aspects of their findings might have for the problem (and related) area(s).	70-100
2.1	Good. Critical evaluation using appropriate evaluation procedure/criteria clearly described and justified accompanied by critical discussion of the results of the project in the context of what is known about the topic area with reference to the work of others. A constructive analysis of the students own work. The discussion identifies the extent to which research questions were addressed and lays out areas for further development/research.	60-69
2.2	Fair. Reasonable evaluation, with a clear description of the evaluation procedure/criteria but limited in their justification accompanied by discussion of the results of the project in the context of what is known about the topic area with some reference to the work of others. Some critical analysis of the students own work. Some discussion of the research questions and the extent to which they were answered. Some discussion of further areas for development/research.	50-59
3	Poor. Limited description of evaluation procedures/criteria and/or procedures/criteria inappropriate accompanied with little discussion of the results of the project. Limited reference to what is known about the topic area and little or no reference to the work of others. Limited reference to the research questions and how they were answered. Limited critical analysis of the students own work. Limited discussion of further areas for development/research.	40-49
Fail	Very poor. Little or inadequate evaluation described or completely inappropriate procedures adopted. Little realistic discussion of the results of the project. Limited or no reference to what is known about the topic area and no reference to the work of others. No reference to the research questions and how they were answered. Little or no critical analysis of the students own work. No real discussion of further areas for development/research.	0-39

Mark awarded: __62__

Comment:

Again he does attempt to be systematic in his evaluation taking each application and trying to discuss the implementation of the similar elements. It is a bit high level in terms of discussion though. It would have been useful if he could actually present some more precise times in relation to the separate developments. He said that he reviewed the “development logs” for each app, but I saw no evidence of formal development logs being used. Clearly, however, the code for the QuickConnect version is significantly shorter and thus development time is quicker. I would also have liked a deeper discussion of the

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adherence to the Apple iStore guidelines. Again it is a bit “high level” in its coverage. Exactly what are the differences in either implementing them from a code perspective? Some code fragments with explanation is really what I would be looking here is an excellent project. His presentation of the Instrument Benchmarks also makes comparative comparison a bit difficult. Still it was good that he attempted these. Certainly his basic research question has been appropriately investigated even if more overall depth and analysis could have been given.

Final Documentation:

The marks relate to: the quality of the presentation of the report (both format and writing style); the appropriateness of the structure of the report; and the presence of the appropriate and specified sections within the report and the overall depth given in these sections.

Grade	Description	Mark range
1 st	Excellent. Exceptionally well structured and presented report. All sections complete and appropriate.	70-100
2.1	Good. Well structured and presented report. All sections complete and appropriate.	60-69
2.2	Fair. Adequate presentation and attention to structure. All sections complete and appropriate	50-59
3	Poor. Inadequate presentation and attention to structure. One section may be incomplete or missing.	40-49
Fail	Very Poor. Little attention to appearance and structure. Several sections may be incomplete or missing.	0-39

Mark awarded: ____ 65 ____

Comment:

Structurally very complete and reasonably well laid-out. A bit “high level” in coverage in some places and a number of grammar/spelling errors every now and again.

Supervisor only

Student effort and self reliance

The marks relate to: the effort that the student put into the project work; the extent to which the student needed staff support.

Grade	Description	Mark range
1 st	Excellent. Student consistently worked above levels normally expected at honours and/or was extremely self reliant .	70-100
2.1	Good. Student worked hard on project and/or was generally self reliant	60-69
2.2	Fair. Adequate effort applied to project but student needed additional support in some areas.	50-59
3	Poor. Inadequate effort applied to project and/or student needed high levels of support.	40-49
Fail	Very Poor. Appeared to make little effort and/or student needed constant support.	0-39

Mark awarded: ____ 68 ____

Comment:

The student worked effectively and was generally self-reliant. Taking on board feedback given at supervisor meetings.

Summary of marks for honours report

Section	Section mark (out of 100)	Weighting (70%)	Weighted mark
Literature review update	65	0.05	3.3
Problem and systems analysis.	62	0.1	6.2
Project Design, Implementation & Testing	65	0.25	16.3
Final Discussion, Conclusions and further work	62	0.15	9.3
Final Documentation	65	0.1	6.5
Student effort and self reliance	68	0.05	3.4
		0.70	Total out of 70: 45.0

Supervisor mark (out of 70): _____ **45.0** _____

Second marker mark (out of 70): _____

Agreed mark for honours project (out of 70): _____

Comment: