School of Engineering and Built Environment

Computing-Based UG Programmes

Honours Project marks

Develop & Test style project

Student: Student D (68%)

Supervisor: Brian Hainey

Second marker: Richard Foley

Honours year: 2011/2012 **Date of report marking: _18 /_4_/12**

Agreed summary of marks

Interim report	**mark out of 20**	_____
Honours report	**mark out of 70**	__47.3/70 = 68%_____
Poster Presentation	**mark out of 10**	_____

Total mark out of 100 _____

Signed (Supervisor) _____

Signed (Second Marker) _____

Richard Foley - 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
1st	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. *Or* Little or no change and initial review section in interim report was rated as 1st 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. *Or* 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. *Or* 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. *Or* 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. *Or* Little or no change and initial review section in interim report was rated Fail. **(in this case award zero)**	0-39

Mark awarded: ___75_____

Comment:

This is good for a Develop and Test project in the sense that it is concentrating on the implementation issues (e.g. Touch Screen usability and Distributed/Mobility issues) which the application has to utilise in order to be successful. This is a classic approach for D&T projects for the use of supporting literature to provide that conceptual framework for the project's primary work. Possibly some elements could have a bit more "depth", but certainly this is a solid effort which incorporates a clear element of Technical review as part of that "literature review".

Richard Foley - Second Marker

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
1st	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: __70_____

Comment: The approach taken here was clearly set out on the first page of this chapter and demonstrates a "classic" "R&D" approach to the problem. I really liked the approach of conducting a series of specific "technology tests" to identify the appropriate technical solutions (based on the findings of the literature review). he also showed great "time management" by conducting these "tests" in the latter part of semester A, so that he had "sussed out" that element of key technology/IDE learning in readiness for the actual primary development work. Far too many students who undertake "D&T" projects try to "learn" (and often even worse, try to decide upon) the technology they will use for the application at the same point as they try to develop the application itself. To be successful in a D&T project you must do what this student has done, and use the pre-Interim Report stage to combine both the literature conceptual framework with the technology determination/familiarisation. A number of the experiments he conducted/test programs he developed, had their "conception" in aspects of the literature review and perhaps he could have drawn this out more explicitly with more direct reference to that literature review, but the whole "thrust" of his approach is excellent.

The student has clearly also benefited from this being a "real-life" project and his approach in the use of SCRUM where he works as part of a team also is very good and very well presented. He is clearly demonstrating "rigour" in his approach and application. he also presents the key elements of that as it related to the identification of requirements. This is really quite impressive as an attempt at a "D&T" project.

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
1st	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 corresponding "Design and Implementation" section of the report is again well presented and clearly written. It would have benefited from giving a bit more of the "highlights" of the key decision. Certainly he gives some discussion of all of the key decisions as he developed his

implementation. I am not absolutely sure if he has struck the right balance between material in the main body and referring to appendices, but it is certainly clear that it is a well-presented solution, based on sound literature and problem analysis, with a detailed explanation of the issues involved in that design and implementation.

The demo itself showed that the student had a very good understanding of the coding and technologies. It was quite a substantial effort for an Information Systems Development student.

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
1st	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:___58_____

Comment: This (to be honest) is a bit weaker that the other elements. Viewing it across the last two chapters (5 & 6), one thing which is missing is a basic "fitness for purpose" qualitative/discursive evaluation. By that I mean (for example) in the first chapter of the report he gave an overview of the existing (mostly manual) mechanism for booking a room and briefly commented on the problems involved. He should really, therefore, also have included a discussion about the specific ways in which the new system addressed the problems of the old system. He is also too "apologetic" about his development of the system, and he shouldn't really be. For example, in section 6.2.1 he talks at various points about

"abandoning" various "initial requirements", but he is doing himself a "disservice" presenting it like that. He adopted an Agile approach and as such it is an approach which "accepts changing requirements". Thus these are not "abandoned requirements" as if they are a "failure", but are "adapted requirements" which are part of an agile approach and why such an approach is beneficial to the production of high quality software. Thus in his reflection on the software development approach he should be identifying it as a "success" of the approach rather than it coming across as some kind of "failure on his part" (which it isn't)! He also attempted as part of his "evaluation" to conduct an HCI based "experiment". He really shouldn't have even tried to do this for this type of "D&T" project. Too many students somehow think that a user based HCI evaluation is needed for a "D&T" project. Even in this type of "D&T" project, in which HCI of the tablet based interface is a part of the application, a user based HCI evaluation is not necessary. How can a student who develops an application with some "novel" technologies also be expected to undertake such an HCI evaluation? A successful user-based HCI evaluation needs a large number of participants with a reasonable understanding of the application (or similar applications) and has to be conducted in a reasonably in-depth experiment/timescale. Students in Honours all too often think that "research-based" means (something like) a detailed HCI evaluation of a development, when for a "D&T" project the research basis involves the systematic identification of solution approaches (most technical) to solve a particular "problem". Thus its evaluation should concentrate on those elements. To attempt a "D&T" development and also a detailed HCI user-based evaluation is really TWO projects! No student should even attempt this (although Jessica Rabbit did and she also shouldn't have)! He had plenty of existing material all based around the development and the solution to the original problem (both functionally and technically) which he could have used to present an evaluation. He ended up "commenting around that" rather than "systematically evaluating that". He also continued with the "apologetic tone" (for example) when he presents the fact that he didn't use Ajax "getJSON" as a "failure on his part" rather than an element of "future work". The discussion in his final part of the report is all "downbeat" when really he has implemented a very sound "D&T" project and he should be far more "upbeat" about it.

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
1st	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:___75_____

Comment: His general writing style and the completeness of the report is excellent. Overall there is a very good reporting style as well as clear academic writing when required.

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. You should also consider the initiative and contribution the student demonstrated at Supervisory Meetings with you during the course of the project when assessing against the criteria here.

Grade	Description	Mark range
1st	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:___80____

Comment: The abstract was excellent. It is an exemplar in terms of giving the "classic" structure of a solid "Develop and Test" project.

Richard Foley - Second Marker

Summary of marks for Honours Report

Section	Section mark (out of 100)	Weighting (70%)	Weighted mark
Literature review update	75	0.05	**3.8**
Problem and systems analysis.	70	0.1	**7**
Project Design, Implementation & Testing	65	0.25	**16.3**
Final Discussion, Conclusions and further work	58	0.15	**8.7**
Final Documentation	75	0.1	**7.5**
Student effort and self reliance	80	0.05	**8.0**
		0.70	Total out of 70: **47.3**

Supervisor mark (out of 70): _____

Second marker mark (out of 70): ____**47.3**_____

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

Comment: