IS52018C Software Projects

Computer Science and Business Computing Group Coursework Term 2-3 2017-18

Assessment elements

1. Final project report (60%) submitted by 23rd March 2018. This will be marked out of 100, broken down as:

Technical content: 35%

Quality of the report: 35%

Development, testing and evaluation: 30%

More details are given below.

2. Final presentation (10%) during last two weeks of term 2.

You should demonstrate your system to your supervisor before the end of term 2, and they will be asked to confirm that it functions as described in the report. You should also ensure that your code is accessible to the markers in a Git repository.

Final Report

The report should describe the development and evaluation of your software. There is no minimum word count, but the report should concisely address all of the relevant points below. Ask your supervisor for advice if you are not sure if your report meets these requirements. A reasonable length would be 8,000 – 10,000 words.

An electronic copy of the report should be submitted via learn.gold, and two hardcopies must also be submitted to the Departmental Office. The hardcopies should be appropriately bound (not with a staple or paperclip). The front page should give the project name, group letter and names of contributing group members.

Your report will be assessed on:

- The quality of the implementation (as demonstrated by the report and confirmed by your supervisor).
- The software development process, including testing and user evaluation
- The effectiveness of your work together as a team
- Your own evaluation of your project work.
- The quality of the written presentation.

See the section on **Detailed Assessment Criteria**, which are modelled on those used for the final year project. You can assume the reader has read your initial proposal. The report should contain the following information:

Introduction

Briefly recap the main points of your proposal (i.e. motivation and aims) to remind the reader, and then inform them about what this report will cover.

Development Record

Describe how the group selected the technology with which to implement the agreed functionality and what development or research methods (e.g. agile) were used. Describe the way that the development was handled by the team and reflect on how development went, what worked well and anything you would do differently next time.

Formative Evaluation

Describe any evaluation with users that was done during development. Be specific about what you did during user testing, e.g. number of users, frequency and nature of testing, versions of software tested, outcomes from the testing and lessons learned.

Design and Implementation

Give an overview of your final design and implementation, including any changes from your initial ideas. Provide justifications for any significant decisions you made.

Quality Assurance

Provide details of your approach to QA and any testing carried out, including results. How well does your final system conform to your initial requirements? Justify any changes in requirements.

Summative Evaluation

Describe the methods, results and conclusions of the evaluation of your final software.

Bibliography

A list of published sources referenced in the proposal.

Appendices

The appendix or appendices should contain additional material that is referred to in the text, e.g. more detailed documentation of technical architecture and evaluation/testing results.

DETAILED ASSESSMENT CRITERIA FOR FINAL DELIVERABLE

Implemented system and report marked out of 100, counts as 60% of overall mark.

Technical content (quality of software or software+hardware) (35/100)

- good design
- correctness
- elegance
- usability
- level of difficulty
- originality
- the significance of the work in relation to the state-of-the-art
- all parts of the system working
- good user interface
- effective error handling

Report (35/100): Software project

- Clear structure
- good introduction and fair discussion of literature
- Clear statement of problem and effective problem analysis
- Justification of design decisions
- Good argumentation and justification of claims
- clear documentation and user guide
- conclusion and discussion of future work
- sufficient and appropriate references, and good citing method
- Good layout and formatting, especially of tables, figures, formulae and code examples
- Correct and readable English in an appropriate style for academic work

Physical computing (Hardware+Software) system As above plus:

- Clear statement of system architecture, including electronic schematics and hardware designs

Testing, evaluation and development 30/100

- Description and motivation of development methodology
- Evidence of planning and regular reviews
- Systematic testing regime including design of appropriate test cases
- Justification of testing methods
- User evaluation involving representative stakeholders
- Insightful discussion of results
- Evaluation of own work in relation to original proposal and plan
- Reflection on what has been learned about coordination, negotiation and   communication within a group.
- Outcomes should be evaluated with reference to efficiency, correctness and suitability   to users' needs.
- Ethical audit: you should explain how you have handled any issues of privacy, data   protection, intellectual property...