Coursework report 2010–2011
2910320 Final project report

As with every year, the standards of the submitted project reports ranged from excellent to poor. Some students tackled very interesting academic questions, and the Examiners could see the potential for publishable material arising from a number of projects. Projects which scored poorly were often ones which involved only the implementation of a piece of software of a website, without attempting to answer any specific academic question.

Ideally, the Examiners are looking for a project to address a specific problem by following the structure of an academic research project: identifying a specific question to be addressed, proposing a means of answering that question (which may entail proposing a solution to an identified problem), performing some sort of experimental data collection relating to the proposed means of answering the question, analysing the collected data, and drawing conclusions from the analysis which relate back to the original research question.

Projects which merely involve the implementation of a piece of software or website, with no academic question driving the development, will not achieve high marks. They may, however, be deemed sufficient for a pass if they demonstrate the application of solid software development practice. Even a project which is, on the face of it, a straightforward software development task, can be cast as an academic research project if appropriate questions can be addressed (e.g. can novel feature *X* improve some aspect of a business process?, can novel user interface feature *Y* improve customer satisfaction of the system?). The more specific a question that can be framed, and the more specific the means of analysis, the easier it will be to provide a definitive answer to it in the project.

For projects which involve developing software for a group of intended users, be sure to include in your project plan a process of stakeholder consultation at the start of the project to establish their requirements and their views on your proposed solutions. There are very few cases where such stakeholder consultation will not be appropriate. Even if no such consultation is attempted, be sure to explain and justify how the requirements have been arrived at.

For this type of project, in addition to stakeholder consultation at the design stage, it is also important to include some element of stakeholder evaluation after the system has been developed. For such projects, care should be taken at an early stage to decide who will evaluate the end product, and how such evaluation will be carried out. It may be that different sorts of evaluation are appropriate for different groups of stakeholders. Without seeking stakeholder evaluation and analysing the results, it can be hard to evaluate whether the project has succeeded or failed in its goals.

Of the projects which *did* attempt to address a specific academic question, while many were done well, some were not done so well. A common problem with these types of project is that students apparently ran out of time; in these reports, the initial chapters on literature review, project design, etc., would often be done well, but later chapters

on analysis of results and discussion would be very superficial. This demonstrates the importance of good time management during the execution and writing up of the project. It can be tempting to spend too much time on certain sections of the project – often those sections which the student finds particularly enjoyable – while losing sight of the overall timetable and of the time available in which to complete all of the remaining tasks. It is vital to have a detailed project timetable, and to regularly check your actual progress against it. If necessary, be prepared to change the timetable, and possibly cut down on some non-essential items, if you find that you are falling behind schedule. It is better to submit a smaller, complete project report than a more ambitious, but incomplete piece of work.

A few of the submitted projects were essentially just literature reviews on a particular topic. A literature review is *not*, in itself, an acceptable project. If no code is being developed, a project based on a literature review should be enhanced by the student's own critical analysis and evaluation of previous work, with ideas for moving the topic forward, future developments, etc.

A small number of students developed a piece of software but did not submit their code either electronically (e.g. on a CD) or in hard copy (as an appendix to the project report). Instead, they just showed screenshots of the software in the report. If a project involves software development, it is essential that you submit the code (in either soft- or hard copy), in order for the Examiners to evaluate it. If no code is submitted, a software project is unlikely to pass. Even if the code is not stand-alone (e.g. if it relies on other third-party libraries), the Examiners should at least be able to see the code even if they cannot run it.

In some projects, students adapted software from third-party sources (e.g. open source code). While this is perfectly permissible, care should be taken to comment which sections of code were obtained from elsewhere (with appropriate acknowledgement of the source), and which sections of code were written by (or modified by) the student. Failure to make this clear may result in a suspicion of plagiarism.

If using third-party software (e.g. a web development framework such as Ruby on Rails or CakePHP), justify your choice in the report, and say what alternatives you considered and why they were not selected.

A common problem in the literature review section of the reports was to include long descriptions of literature of little or no direct relevance to the project. The literature review should discuss *relevant* literature and carefully consider how it relates to the project; it should not just be a summary of every single item you have read.

Many students made good use of surveys for various purposes, e.g. to canvas opinions on a topic, or to obtain feedback on the usability of the developed software. However, in many cases the students failed to explain who the survey participants were or how they were chosen. Be sure to think carefully about participant selection, and to explain this in your report.

Many students made appropriate use of appendices for providing extra information, source code listings, more detailed analysis, etc. However, some students included information in the appendices which was not referred to in the main text, and therefore might easily not have been noticed by the Examiners. Be sure to mention at the appropriate point in the main text where extra information is provided in an appendix.

The majority of the submitted reports were of appropriate length. However, some were too short, missing out important details about what was done and how. Others were far too long, including irrelevant details (often in the literature review section as described above). Projects are judged on the originality and quality of the work, not on the length of the report. Indeed, very long reports risk being marked down if the content is of little relevance to the project topic.

Although most of the submitted reports were well structured, a small number were not. It is expected that the report will be divided into a number of chapters, and each chapter will likely be divided into a number of sections. Chapters and sections should be numbered for easy reference, as should figures, tables, etc. Although no specific numbering system is prescribed, it is a good idea to number figures in parallel with chapter numbers (e.g. such that the third figure in Chapter 2 would be labelled Figure 2.3). A small number of submitted reports had strange numbering systems, or no numbering at all, which makes reading the report and finding figures, etc., difficult.

The style of writing in the reports was generally good or at least acceptable, with a few exceptions. In the worst cases, the quality of writing was so bad that it became impossible to understand the meaning of some sections of the report.

Most of the stylistic problems mentioned in the previous few paragraphs are very easy to avoid. It is always a good idea to make the report as easy for the Examiners to read as possible, so that they do not have to struggle to understand exactly what you have done, how and why.