

COURSEWORK

COM1012 Systems Analysis & Design COM1015 Communication and Group Work

This is a **group** exercise which must be completed by 16:00 Friday 1st May 2009. It should be handed in electronically via U-Learn (COM1012), preferably as Acrobat pdf format, but failing that, as Microsoft Word format (Note pdf995 from www.pdf995.com is a good utility to use to convert Word to pdf). You should **also submit a paper copy** to the LTS Office (48AP02), as your submission for COM1015.

This assignment comprises combined coursework for COM1015 Communication & Group Work and COM1012 Systems Analysis & Design. The structure, presentation etc. of the report contribute to the assessment for COM1015 (Report: 30%, Presentation: 25%), whereas the systems analysis & design content, relating to the diagrams and answers to questions and exercises, form 30% of the total assessment for the COM1012 Systems Analysis & Design module, and represent the single piece of coursework for that module.

You may, if you prefer, use a CASE tool to produce the diagrams (*providing the above mentioned syntax is followed*), but for this coursework, it is perfectly OK to use a drawing package such as MS-Paint, MS-Word, MS-Powerpoint, or MS-Visio, or you may submit your diagrams neatly drawn on paper if you prefer (scanned to allow electronic submission).

IMPORTANT NOTE: You **MUST** follow the diagram syntax and terminology as presented in the lectures, and as given in Dennis, Wixom & Tegarden (2005, second edition), the main COM1012 course textbook.

An assignment submitted after the deadline, in the absence of an authorised extension, **will be marked out of half marks. Plagiarism or copying will not be tolerated.**

The topic to be considered here is Retro Computing. That is, you will need to consider the classification and capabilities of so-called 'Vintage' computers from the 1980s. There is quite a lot of information on these machines on the Web. You are expected to conduct research into the following 12 machines:

ZX Spectrum, Spectrum 48, Spectrum+, Spectrum 128, Spectrum +2, Spectrum +3, Commodore 64, SX64, C128, Amstrad CPC 464, CPC664, CPC6128.

These machines, released in the 1980s, pre-dated modern IBM-based PCs, and had differing capabilities, e.g. with regard to memory, means of data storage and display methods. This was a very active time in the development

of home computers, and although they were used largely for playing games, their capability for program development inspired a whole generation of computer scientists in an exciting and imaginative way. Indeed, many features of modern games have their roots in that era. There are also a number of emulators available for modern PCs, allowing simulation of these retro-computers, and playing of downloaded software/games.

You are required to provide a written report on your findings including a comparison of the different models and their capabilities, advantages, and disadvantages.

Your research is intended to be at a level such that it is possible to construct a **class diagram**, using the information you have found, and **following the syntax in the COM1012 textbook and lectures**. Remember this is to show a classification of these kinds of computer, and should *not* contain any information about software/games. Although these computers can have many peripheral devices, you should restrict yourself to considering those that were bundled with the retail packs, and those that are necessary for the machine to function normally as a computer.

Your report **must** include:

- **A UML Class Diagram** derived from all the information in the above scenario. Remember: you should use the syntax, structure and concepts as shown in the main course textbook (Dennis, Wixom & Tegarden, 2005).

[60 marks for COM1012]

- **An explanation** in words of the structure of the **Class Diagram**. You should explain all syntax, clarify meaning and explain why you have drawn your diagram in the way that you have.

[25 marks for COM1012]

- **A UML Object Diagram** created using information about processor (CPU), memory and storage methods, derived from the research you have conducted. The starting point for this should be your Class Diagram as described above. You should also explain your answer in words.

[15 marks for COM1012]

This coursework is a **group/team** exercise, which will be assessed by a **presentation** and a **written report from each group/team**. An outline or plan of the report must be submitted to the LTS Office (48AP02) by 16:00 on Friday 27th February, 2009. A paper copy of the final written report must be submitted by 16:00 noon on Friday 1st May, 2009 to the LTS Office (48AP02). However, you are recommended to complete your group meetings before the Easter break! Each team/group should submit one agenda and one set of minutes from their meetings. The presentations will take place after the

Easter break (date to be confirmed). **Each member of the group must participate in the presentation in order to receive a mark.**

Report Length: c. 2,000 words, excluding the bibliography

The report should be written in accordance with instructions given in the COM1015 module sessions, and include a short paragraph from each member of the group detailing their contribution to the project and report.

You are expected to conduct research into retro computing and to investigate published works, both electronic and non-electronic, e.g. books and published academic papers. The structure of the report should follow guidelines for scientific reports and include the following sections:

- Abstract
- Introduction
- Literature Survey
- Methodology
- Results
- Discussion
- Conclusions
- References
- Appendix

Assessment

Assessment for COM1015 will focus on the report and presentation and will take into account the following factors:

Report: Organisation, structure, presentation, style of writing, referencing, linguistic accuracy

Presentation: preparation, professionalism, suitability for audience, structure, language & style, visual aids

Teamwork will be taken into consideration and a reflective exercise will be assessed through an online discussion to be conducted between 13th March and May 2009 (end date to be confirmed).