CS4101 B.Comp. Dissertation (Final Year Project Report) Format

1.   Introduction

This document describes the standard format for the final project report to be submitted as part of the fulfillment of the CS4101 B.Comp Dissertation at the Departments of Computer Science and Information Systems, School of Computing of NUS. Students have to ensure their reports conform to the required format before submission for examination.

2.   Final Project Report

2.1   Length of the Report

The total length of the main report shall not exceed **55 A4 pages**. The text of the main report shall be spaced 1.5 lines, with a font size of at least **TIMES ROMAN 12.** Appendices and other manuals can be in single space and a smaller font size. Appendices should be kept small and bounded together with the main report. However, user manuals, programmer manuals and bulky data dictionaries should be bounded as separate volumes. Please consult your project advisor if you are unsure which materials you should include in the main report and appendices and the length of appendices. The report should be clearly written, and should include only relevant information. Indeed the inclusion of too much detail may cause the evaluation committee to doubt whether the student has really learnt how to distinguish the important issues from the trivial ones.

2.2   Format

All B.Comp. Dissertation reports must be prepared in the following sequence:
  i.   Front hard cover
  ii.   Title page
  iii. Abstract
  iv.   Acknowledgment page (if any)
  v.   Table of contents
  vi.   Main report
  vii. References (or bibliography)
  viii. Appendices
  ix.   The back hard cover

Some of the important points on the report format are explained in the following sub-sections.

2.2.1   Front and Back Cover and Binding

Ring binding should be used for all reports and appendices. As sketched in the sample pages, the words "B.Comp Dissertation", the project title (bigger font size), the student's name, the words "Department of Computer Science or Department of Information Systems, School of Computing, National University of Singapore" and the academic year (e.g., 2008/2009) should appear on the front cover.

Front Cover of the Final Report – Sample

B.Comp. Dissertation

**Development of a Database Link Between
Mainframe and PC**

By

Chua Meng Lee

Department of Computer Science

School of Computing

National University of Singapore

2008/2009

2.2.2 Title Page

The first page of the final report should be a title page. It should consist of the words "B.Comp. Dissertation", the Title (centered, bold and two size larger), the Author Name, the words "School of Computing, National University of Singapore", 20XX, and Project No, Advisor's name, and deliverables (e.g., number of document volumes, software, hardware and etc.) should also be included. The cover page should fit on one page.

<u>Title Page – Sample</u>

B.Comp. Dissertation

**Development of a Database LINK
Between Mainframe and PC**

By

Chua Meng Lee

Department of Computer Science

School of Computing

National University of Singapore

2008/2009

Project No: H90000
Advisor: Assoc Prof Jarzabek Stanislaw

Deliverables:
       Report: 1 Volume
       Manual: 1 Volume
       Program: 1 Diskette
       Database: 1 Diskette

3.2.3 Abstract Page

It consists of an abstract of the report of not more than 200 words outlining the project. The abstract should be comprehensible to readers of the report and enable them to judge the report's potential interest. The Keywords and Subject Descriptions should follow immediately after the abstract in the same page, each with not more than five careful selected items. The descriptors should be chosen from the latest version of "The Full Computing review Classification Scheme" of the ACM Computer Review. Any suitable word that reflects the nature and content of the project may be chosen as a keyword. The student should consult the project advisor when in doubt which keywords and descriptors be used.

<u>Abstract - Sample</u>

Abstract

The use of Wireless Sensor Networks for environmental monitoring has become increasingly popular over the past decade due to its affordability, ease of deployment and customisation, as well as its potentiality in the processing of sensed data. One of the greatest challenges in this field would be in the design and implementation of an efficient routing protocol which takes into account the various limitations of Wireless Sensor Networks, such as battery life, limited storage capacities and high probability of packet losses. Besides this, it is also extremely difficult to evaluate the performance of such a protocol under crisis scenarios, due to its infrequency and unpredictability. In our work, we have designed a routing protocol based on optimised Virtual Polar Coordinate Routing (VPCR) (Newsome and Song, 2003) for use with our three-dimensional testbed, comprising of 48 MICAz (Crossbow) motes spread across two floors of a building. We have also developed a Java-based application with features for Event Emulation and simple nodal analysis to assist us in our experiments. The overall performance of our protocol will be gauged based on the average Path Stretch Factor and path length comparisons between optimised and naïve VPCR.

Subject Descriptors:

C.2.1	Network Architecture and Design
C.2.2	Network Protocols
C.2.4	Distributed Systems
C.4	Performance of Systems
I.2.9	Robotics

Keywords:

Wireless communication, routing protocols, distributed applications, fault tolerance, sensors

Implementation Software and Hardware:

Ubuntu Linux 7.04 Feisty Fawn, TinyOS 2.x, NesC 1.2.8a, Java 1.6 SE, Xbow Motes, Tembusu cluster

2.**2.4**   Acknowledgement

Following the abstract page, students may want to acknowledge the contributions or assistance of others to the project. It should be kept in one double-spaced A4 page.

2.2.5   Table of Contents

In addition to the heading of each section, sub-heading can also be used but its depth should be kept to a minimum. Details of appendices should also be given here. Students may use more than one A4 page for the content page.

2.2.6   Main report

The structure of the main part of the report will vary according to the nature of the project. It is both convenient and conventional to organise the report in a hierarchical structure: *Chapters, Sections, Sub-section*s, and *et*c. In general, there should be an *Introduction* giving an overview and background of the project. Also, there is generally a section for *Conclusion*s, and one for *Recommendations* where appropriate. Students should consult their project advisors on how to structure

2.2.7   References

A list of all books, report, papers, etc., referred to in the report or consult during the course of the project should be given under the References or Bibliography section. Please see Section 2 for format for references and citation.

2.2.8   Appendices

Information of secondary importance (and information whose inclusion would break the flow of the report) should be placed in Appendices. These include programme listing, electronic data sheets, data dictionary, and etc.

2.2.9   Page number and Section number

The maximum number of pages for main report is 55. The page number here starts from the first page of Introduction to the last page of conclusion/summary.

All other pages like abstract, contents, list of figures, list of tables, list of abbreviations, acknowledgements, list of references, bibliography, are not counted in these 55 pages.

Please number 1, 2, 3, to 55 (the maximum) for your main report and number i, ii   for all other pages in front of the main report. You are requested to continue your main report numbering for reference/bibliography pages that come at the end.

A hierarchical numbering scheme for section numbering shall be used. For instances, use 1 for section one, 2 for section 2, 1.1 for the subsection of section 1, and etc (See the Table of Contents).

3.   Format for Reference Citation and References

3.1   Citation in the main text (Base on Publication Manual of the American Psychological Association, 3rd ed).

Citation in the main text should be in the form of the author(s) surname(s) followed by the year of publication. When there are more than two authors and fewer than six author, cite all authors the first time the reference occurs; in subsequent citation include only the surname of the first author followed
by a **et a**l. When a work has six or more authors, cite only the surname of the first author followed by **et al** and the year for the first and subsequent citations. For instances:

> An interface processor is the basis for another human-computer interaction model (Edmonds, Jones and Davies, 1982). [First citation]

> Architecture of an application system produced using the Dialogue management System (Edmonds et al, 1982) approach is shown in Fig 9……..[Second citation]
> In Bass et al (1981), the interface for a statistical ……..[First and subsequent citation for a work more than six authors]

3.2   List of References

References should be ordered alphabetically according to the surname of the first author (use the editor name or the organisation name when the author name is absent)

3.2.1 Journal articles

Dicken, G.W., Leitheiser, R.L., Wetherbe, J.C. and Nechis, M. (1984) key information Systems Issues for the 1980's. MIS Quaeterly, Vol.8, No. 3, September 1984, pp. 135 – 160.

Gorry, G.A. and Scott-Morton, M.S. (1971). A Framework for Management Information Systems. Sloan Management review, Vol.13, No.1, Fall 1971, pp. 55 – 70.

Gorry, G.A. and Scott-Morton, M.S. (1971b). A New Framework for Management Information Systems. Sloan Management review, Vol.13, No.2, Fall 1971, pp. 20 – 30.

3.2.2 Books or a report

Kroeber, D.W and Watson, H.J. (1987). Computer-based information Systems: A Management Approach. Second Edition, Macmillan Publishing Company, New York, 1987.

3.2.3 Conference paper

Gouda, M.G. and Dayal, U. (1971). Optimal semijoin schedules for query processing in local distributed database systems. In Proceedings of ACM SIGMOD International Conference on the Management of Data, (Ann Arbor, Michican, April 29 – May 1, 1980.) ACM, New York, 1981, pp. 164 – 165.

3.2.4 Manuals

IBM. (1984). Information Systems Planning Guide. Fourth Edition, July 1984. SPSS Inc. (1983). SPSS-X User's Guide. McGraw Hill Book Company, New York, 1983.

3.2.5 Unpublished reports and theses

Thorpe, A. (1982). Stability tests on a tender-price prediction model. M.Sc. Thesis, Loughborough University of Technology, UK.; 1982.

4. Others

In case you wrote a paper describing your B.Comp. Dissertation work for possible conference publication (up to 10 pages), you can include the paper in the B.Comp. Dissertation Appendix. In such case, the page limit for your final report is 55 pages plus 10 pages for the paper. Note that it is not obligatory for you to include a paper into your FYP Report.

B.Comp. Dissertation Coordinator
May 2008