Department of Computer Science
Ahmadu Bello University, Zaria

400 Level B. Sc. Computer Science General Project Guidelines

This document outlines the guidelines and requirements for successful completion of students' project reports. The project is one of the requirements for the award of a Bachelor of Science Honours [B. Sc. (Hons.)] degree in Computer Science. The specific aims of the document are to:

1. Guide the students/supervisor in the preparation/supervision and presentation of the project work.
2. Ensure uniformity in the project work of the students in this department
3. Ensure that the project work conforms to standard formats (Chapterization, labelling of figures, tables and formatting of references)

General Format:

1. Preliminary Pages

a. Title Page
b. Declaration
c. Certification
d. Dedication page (if any)
e. Acknowledgements
f. Abstract
g. Table of Contents

i. **Title Page**

This page bears the title of the project, names of the student, the registration number, a clause and the date (i.e., the month and year in which the project is to be presented). The clause should read as follows:

A PROJECT SUBMITTED TO THE DEPARTMENT OF MATHEMATICS, AHMADU BELLO UNIVERSITY, ZARIA-NIGERIA IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF BACHELOR OF SCIENCE   (B. Sc. Hons.) IN (state the course)

ii. **Declaration**

This page should contain a declaration statement like:

I, (state the name of the student), hereby declare that this project titled (state the project title) has been carried out by me under the supervision of (state the name of the supervisor). It has not been presented for award of any degree in any institution. All sources of information are specifically acknowledged by means of reference.

……………………………………..   ……………………….
Signature   Date

iii. Certification

This page should contain the following statement:

This project entitled "(MENTION THE TITLE OF THE PROJECT)" by (state the name of the author) meets the requirements governing the award of the degree of Bachelor of Science in (state the course) and is approved for its contribution to knowledge and literary presentation.

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(Name of the Supervisor)   Date

Supervisor

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(Name of the Head of Department)   Date

Head of Department

External Examiner

Name: ---   -------------------------

Signature: --   Date

iv. Dedication

The content of this page is expected to be in concise form and in good English Language. You may dedicate the project work to someone or some people who have affected your life in some ways, preferable with respect to your studies. THIS PAGE IS OPTIONAL.

v. Acknowledgement

This page contains some paragraphs recognising and thanking those who contributed in one way or another to the success of the project in particular and your studies in general. The language used should be clear and polite irrespective of style. THIS PAGE MUST NOT BE MORE THAN ONE PAGE.

vi. Abstract

The abstract gives a concise description of the project. An expansion of the abstract should produce the entire content of the project while on contraction, the abstract should produce the title of the project. From the abstract, one should be able to get the following information:

Introduction of topic/area of research
The work done (through a methodology)
The results obtained

It should be between 150 – 200 words and must be written in a single paragraph.

vii. Table of Contents

This gives an outline of the project's contents. The title/subtitle labels along with the titles and their respective page numbers should be arranged in the order in which they appear in the body of the project. Specifically, the following must be shown on the table of content:

1. The preliminary pages
2. The contents page and
3. All the subtitles of the content of the project in the order in which they appear in the work.
   e.g

Table of Content

In order to ensure that the table of content actually contains the entire titles and subtitles in the project, the table of content should be generated automatically in a word processing package such as the Microsoft Word or LateX.

2: Content Pages

Every project must contain the following chapters and chapter titles.

a. Chapter 1: Introduction
b. Chapter 2: Literature Review
c. Chapter 3: Design of the Propose System/Application
d. Chapter 4: Implementation of the Propose System and Discussion of Result
e. Chapter 5: Summary and Conclusions and Recommendations

    f. References

    g. Appendix (e.g Source code or other data/information to much to be in Chapters 1-5)

The chapter title may be modified/changed in agreement with the project supervisor but each chapter must have a title. However, Chapter 1: Introduction, Chapter 2: Literature Review and Chapter 5: Summary, Conclusions and Recommendations should not be changed. Each chapter may have several subtitles/sub-subtitles.

NB. 1. The references and the appendix are not parts of chapter five or any other chapter for that matter. They are standing on their own.

    2. Items a – g above must each start on a new page and should be written all in capital letters.

Chapter One: Introduction

This chapter brings to light the concept and motivation of the whole project idea. It should be able to relate to similar past work with relevant references. The introduction should eventually lead up to a definite statement that justifies the study and the mode of approaching the problems raised.

Chapter Two: Literature Review

This chapter should give the relevant background information with respect to the area under study, backed up by relevant references (both old and new). This chapter should explain what is missing in the literature to justify how the work done in the project compliments or addresses a limitation in available literature. It is very important that the candidate demonstrates knowledge of what is available in the literature to avoid repeating work done by others.

Chapter Three: Design of the Propose System/Application

The methodology or approach adopted in addressing the project's idea should be explained clearly and the tools used to accomplish the project. The relevance of any data a collected/generated and/or tools used must be justified and their limitations pointed out. This chapter should be such that anyone wanting to repeat the work done in the project should be able to do it without difficulties.

Chapter Four: Implementation of the Propose System and Discussion of Result

The findings (results) of the project should be presented in a clearly understandable form; tables, figures (graphs and diagrams etc.) should be appropriately numbered and labelled. Where a piece of software is developed, its utility should be highlighted while its major strengths and weaknesses should also be pointed out.

Chapter Five: Summary, Conclusions and Recommendations

This should relate to the significance and objectives of the whole project and presented in a concise form. Future prospects and directions should be pointed in form of recommendations. Recommendations may also contain some pieces of advice on the uses of the findings of the project.

References

Ensure that every reference cited in the text is also present in the reference list (and vice versa). Avoid citation in the abstract. The reference list should be well arranged in alphabetical order of first authors' surnames using the American Psychological Association (APA) format. The APA format is obtainable at: http://www.apa.org/books/4200061.html. More than one reference from the same author(s) in the same year must be identified by the letters "a", "b", "c", etc., placed after the year of publication. The following are acceptable materials for references.

    a. Books

    b. Journals

    c. Proceedings

    d. Reports

    e. Websites

Sources of general knowledge such as the dictionary and encyclopaedia should not be cited among the references, even if they may be consulted.

Examples

a. Book

Kashimbila, M. M., (2001). *Principles of Mechanics: For Scientists and Engineers*, Kano: Gidan Dabino Publishers, pp. 18 – 89.

b. Journal

Musa, A. O., (2001). Thin-Film Backwall Schottky Barrier Solar Cells of Cuprous Oxide (Cu_2O), *Ife Journal of Technology*, Vol. 10, pp. 41 – 47.

c. Proceedings

Bamiro, O.A., (1979). Towards a National Solar Energy Policy: Proc. Conf. on Energy Policy, (Edited by E. N. C. Osakwe). *Think Tank Publications*, pp. 375 – 394.

d. Reports

Mikhail, E., (1981). Wind Power for Developing Nation, Solar Energy Res. Inst., Tech. Rep. No. 762 – 866.

e. Websites

Smith, Joe, (1999), One of Volvo's core values. [Online] Available: http://www.volvo.com/environment/index.htm (July 7, 1999).

NB. Reference to materials gotten from the website by simply mentioning the web home page like www.google.com is not acceptable.

Appendix (if any)6

This is where extra information that may be too bulky to be kept in the main body of the project are contained. For a project where a piece of software is developed, the appendix should contain a User's Manual, Design Documents (class diagrams, activity diagram, use-cases, story boards, etc), source code and test suite (where applicable). Also, where the volume of data collected or the results obtained are bulky, such data or results should be taken to the appendix. All materials that are integral parts of the project but are too bulky to be kept within the chapters of the project can be kept in the appendix section.

The appendix should always be kept after the references. At the appendix section, the font size and the line spacing may not necessarily be the same as the other parts of the project as outlined in this guideline.

3. Pagination

Pagination is ascribing number to the pages of the written project. The paging starts from the Title page to the last page under References or Appendix (if any). Different coding systems however are used. Starting from the title page up to the last page of the table of contents, Roman Numerals (i, ii, iii, iv, etc), are used. Arabic numerals (1, 2, 3 etc) are used from Chapter One (Introduction) to the last page of Reference or Appendix (if any). The page numbers should be placed at the bottom centre of the pages.

4. Language Usage

The project is the product on which the student will be assessed. It is therefore very important that a great care is taken to ensure that the work done is appropriately reported. The writing process may not necessarily follow the sequence of presentation in the project. The student may start with review of literature (chapter two) to ensure the proposed work has not been done already. The next stage may be the actual performance of the work (chapter four) before the description of the methodology used (chapter three).

The write-up should be in ENGLISH LANGUAGE written in simple form that can be easily understood without sacrificing the technical nature of the study. Sentences should be written in third person format.

The student should ensure the following:

    a. Correctness of spellings of the words

    b. Proper punctuations

    c. Proper Capitalisation

    d. Proper use of *italics*

e. Appropriate sentence structure

5. Typing of Projects

The copy of the project is the product on which the student will be assessed. It is therefore very important that a great care is taken to ensure that the work done is appropriately reported. The writing process may not necessarily follow the sequence of presentation in the project. The student may start with review of literature (chapter two) to ensure that the proposed work has not been done already. The next stage may be the actual performance of the work (chapter four) before the description of the methodology used (chapter three).

Paper: The type of paper to be used should be A4 size (21.0cm × 29.7cm ≡ 8.27″ × 11.69″) and white in colour.

Margins: There should be a margin of 3.0cm (1.18″) on the left hand side and 2.54cm (1.0″) on the top, bottom and the right hand side margins of the paper.

Font: The font type should be Times New Roman and the size should be 12 points. The font size may be reduced in the tables, figures and appendices provided that it is legible. The font size may be increased in the cover and the title page.

Line spacing: There should double line spacing throughout the project expect in the table where single line spacing should be used. Also, the line spacing for headings (and subheadings) should be 1.5.

Paragraph: Either the indented paragraph or the block paragraph format should be used. However, the two should not be used by a particular student. Any one adopted should be used consistently throughout the project.

Headings: Maximum of three tier system should be adopted. There should be ONLY ONE BLANK line between a heading (or a subheading) and the texts of the preceding paragraph, table or figure. There should be no blank line between two headings (or subheadings) or a subheading and the text below it. ALL the headings (or subheadings) should be typed flush left on a separate line and numbered consecutively within the chapters using Arabic Numerals. The heading line spacing should not be more that 1.5. The first tier heading (The chapter title) should be typed in capital letters and bold. The second tier subheading should be typed in bold with the first letter of each main word in capital while the third tier subheading should be typed in *italics* with the first letter of each main word in capital. If a heading happens to be the last line on a page (without any part of its texts on that particular page), that heading should be moved to the next page to stay with its texts.

Tables and Figures: Tables and Figures should be numbered consecutively within the chapters using Arabic Numerals. For instance in chapter three, there should be numberings such as Table 3.1 Table 3.2, etc. When numbering figures, the word "Fig" should be used e.g. Fig. 3.1. Table numbers should be written on top of the table while figures numbers should be written below the

figure. Table and figures numbers should be followed immediately on the same line by the respective table and figure titles. Each table and figure should be on the same page with its title. In some cases, the source of the table or figure may be stated (*in brackets and in italics*) immediately below the table or figure.

Equations: All equation must be types using an equation editor such as the Microsoft Equation Editor, Rapid Pi, MathType, etc. The equations should be centred on a new line and numbered consecutively within paragraphs using the Arabic Numerals. The word "equation" should be omitted. For examples:

$$\frac{dy}{dx} = 3y^2 - 4xy + x^3$$
<div style="text-align:right">3.1.</div>

Printing: The project should be typed and printed on **one side** of paper only. It should be between 30 to 50 A4 size pages (Excluding the preliminary pages and the appendices). DO NOT USE QUARTO OR FOOLSCAP SIZE PAPER.

6. Submission of the Project

6.1. Oral examination or internal defence

The copy of the project report to be submitted for internal defence should be in **spiral bound form** and must reach the Project Coordinator within **fourteen days** after the Second Semester examination. The internal defence should be in the third week after the Second Semester examination in our Faculty.

6.2. Final copy

After making all necessary corrections from the internal defence to the satisfaction of the Project Coordinator, the final copy of the project should be bound permanently. Each student should submit four hard bound copies and a soft copy of the project to the Project Coordinator within a stipulated time by the Department and be ready for external examination as soon as it is scheduled. The binding should conform to the following colour specifications:

  B. Sc. Computer Science   Dark Green

ANY PROJECT REPORT THAT VIOLATES THE ABOVE GUIDELINES WILL NOT BE ACCEPTED.

8. Method of Assessment

 a. Supervisor Assessment   40 marks

 b. Internal Defence   60 marks