FINAL YEAR PROJECT REPORT GUIDELINE
DEPARTMENT OF COMPUTER SCIENCE, UNIVERSITY OF IBADAN

This guideline outlines the structure and content required for a comprehensive final year project report. The report should be organized into five chapters, each serving a distinct purpose and building upon the previous one. Below is a detailed description of each chapter and its key components.

The Following format must be strictly adhered to in packaging the project write-ups: A4 Paper, Font: Times New Roman, Size: 12, Left Margin: 1.3", Others: 1", 1.5-line Spacing and **appropriate alignment of justify for body of text.** Titles of Table at the top of the tables and Titles of Figures (including their sources, if not yours) at the bottom of the Figures. Tables and figures must be in separate pages; not within texts.

List of References should be in APA format. For example, (CSCDept, 2014) in the body of the write-up. List of references at the end of chapter 5 should be in alphabetical order in hanging mode, with Surname followed by initials.

Example: Lee, C. D., & Miller, P. K. (2019). "Concurrency Control in Distributed Systems." *Journal of Computer Science*, 35(4), 456-470.

Nguyen, H. T. (2015). *Web Application Development: A Practical Approach.* McGraw-Hill.

Copying the work of others without proper citation is a serious offense known as "plagiarism," akin to theft in the academic world. To avoid this, it is crucial to include accurate references at the end of your report and to correctly link these references within your text. Proper referencing acknowledges the contributions of others and demonstrates that you have conducted thorough research.

(Not more than 500 words) The one-page Abstract should contain four paragraphs as follows:

P1: Introduction, problem statement/ Justification and main objective of project
P2: Research Design and Methodology
P3: Results and Research Findings
P4: Conclusion and Recommendations

Chapter 1: Introduction

This chapter effectively sets the stage for the rest of the report, providing a clear understanding of the project's purpose, significance, and intended outcomes. No one should be bored reading this part of your project.

Introduction chapter should include the following sub chapter:

1.1 Background of Study: Provide an overview of the topic. Discuss the context and relevance of the study.

1.2 Problems Statement: Clearly define the problem your project addresses

1.3 Aim and Objectives: The aim is a broad goal of the project. While the Objectives are Specific, Detailed, measurable outcomes.

1.4 Scope and Limitations: Define the boundaries of your study. Mention any constraints or limitations faced during the project:

1.5 Significance of the Study: Explain the importance and potential impact of your project.

Chapter 2: Literature Review

In this section students need to discuss thoroughly on literature which related to the area or topics selected. In this section you should show where in current literature the problem was first recognized as well as what serves as the foundation for your research proposal or final report. The more references you can find that relate to the given problem statement, the more credibility it will have. This will give the reader an idea whether you have done your "homework" and know enough about the topic to start with the research project. Guideline for this chapter is as follows: –

• What are the past literatures in your selected topic/area?

• Are there any related and suitable theories with your selected topic/area?

• How the literatures/theories help you in determining problem statement and ideas

• Why your selected topic/area is important to do the research/system

The literature review chapter should include the following sub chapter:

2.1 Introduction: Brief introduction to the literature review section.

2.2 Review of Related Works in your area (The breakdown of sub-chapter is depending on

the student creativity). However, it should summarize previous studies and projects similar to yours and highlight gaps that your project aims to fill.

2.3 Summary: Summarize key points from the literature review. Emphasize how your project builds on or diverges from existing research.

Chapter 3: Methodology

This chapter will mainly cover your system analysis and design phase. It describes methods used along the research or project activities. In other words, it describes the flow of research activities from the beginning till the end and we need to thoroughly explain the involved steps in the activities.

The research methodology chapter should include the following sub chapter:

3.1 Introduction: Overview of the chapter (Importance of system analysis and design in the project)

3.2 System Analysis:

3.2.1 Problem Definition

Detailed description of the problem your system aims to solve

3.2.2 Requirements Analysis

Functional Requirements: Specific functionalities the system must have

Non-functional Requirements: Performance, usability, security, etc.

3.2.3 Feasibility Study

Technical Feasibility: Availability of technology and resources

Economic Feasibility: Cost-benefit analysis

Operational Feasibility: User acceptance and operational impact

3.3 System Design

3.3.1 System Architecture

High-level overview of the system architecture

Diagrams (e.g., block diagram, layered architecture)

3.3.2 Data Flow Diagrams (DFDs)

Context Diagram: Overall system interaction

Level 0 DFD: Major processes and data flows

Level 1 DFD (if applicable): Detailed process descriptions

3.3.3 Entity-Relationship Diagram (ERD)

ERD showcasing the database design

Explanation of entities, relationships, and attributes

3.3.4 Use Case Diagrams

Actors and use cases- (Description of primary use cases)

3.3.5 Class Diagrams (for Object-Oriented Design)

Classes, attributes, methods, and relationships

3.3.6 Sequence Diagrams— (Interaction between objects for key processes)

3.3.7 User Interface Design – (Wireframes or mockups of key interfaces, Explanation of design choices)

3.3.8 System Components and Modules – Description of main components and their interactions

3.3.9 Database Design – Tables, fields, and relationships as well as Normalization.

3.4 Summary – Recap of key points discussed in the chapter and Transition to the next chapter

Chapter 4: Implementation and Testing

4.1 Introduction

Overview of the chapter (Importance of implementation and testing in the project lifecycle)

4.2 Implementation

4.2.1 Development Tools and Environment

Description of the development tools used (e.g., IDEs, programming languages, frameworks)

Explanation of the development environment setup

4.2.2 Implementation of Different Modules

Detailed description of each module developed

Step-by-step process of how each module was developed

Sample codes with comments explaining the standards and conventions used

Screenshots or diagrams to illustrate module implementation where applicable

4.2.3 Sample Codes

Example snippets of code from different modules

Adherence to coding standards and conventions

Explanation of key code segments and their functionality

4.2.4 Difficulties Faced and Solutions

Description of challenges encountered during implementation

How each difficulty was addressed and resolved

Lessons learned from overcoming these challenges

4.3 Implementation Issues Addressed

4.3.1 Performance

Strategies used to optimize the performance of the system

Performance benchmarks and results

4.3.2 Consistency

Ensuring data and system consistency throughout the implementation

Techniques employed to maintain consistency

4.3.3 Scalability

Approaches to ensure the system can handle increased load

Scalability testing results

4.3.4 Security Issues

Security measures implemented to protect the system

Vulnerability assessments and mitigations

4.3.5 Real-Time Issues

Handling real-time data processing and updates

Solutions for ensuring real-time performance

4.3.6 Concurrency Control

Methods used to manage concurrent access to resources

Concurrency issues faced and solutions applied

4.3.7 Flexibility

Design choices that enhance the system's flexibility

Examples of flexible features implemented

4.3.8 Adaptability

Ensuring the system can adapt to changing requirements or environments

Techniques used to enhance adaptability

4.3.9 Fault-Tolerance

Strategies for ensuring system reliability and fault-tolerance

Fault-tolerance testing and results

4.4 Testing

4.4.1 Introduction to Testing

Importance of testing in the development lifecycle

Overview of the testing process

4.4.2 Types of Testing Conducted

4.4.2.1 Unit Testing

Testing individual components

Test data and results for each component

4.4.2.2 Integration Testing

Combining different components and testing their interaction

Test cases and results for integrated components

4.4.2.3 System Testing

- Testing the complete system as a whole (Comprehensive test cases and results)

4.4.2.4 User Acceptance Testing (UAT)-

- Testing the system from the user's perspective
- Ensuring the system meets user requirements
- Feedback from users and adjustments made

4.5 Summary- Recap of key points discussed in the chapter and Transition to the next chapter

Chapter 5: Summary, Conclusion and Recommendations

5.1 Introduction: Brief introduction to the conclusion and recommendations section.

5.2 Summary of Findings: Summarize the main findings of your study.
5.3 Conclusions: Draw conclusions based on your findings.
5.4 Recommendations: Provide recommendations for future research, practice, or policy.

References

List all the sources cited in your report in the appropriate academic format.

Appendix

It contains things that could not be directly included in the report but which will nevertheless, help the reader gain a better understanding of the project if included. This includes any supplementary material such as questionnaires, code snippets, data sets, algorithms, extra illustrations (charts, barcharts, photos), surveys, forms and templates, or additional data.

TITLE

BY

SURNAME, FIRSTNAME OTHERNAMES

MATRIC NUMBER

SUPERVISED BY

SUPERVISOR'S NAME

A DISSERTATION SUBMITTED TO THE DEPARTMENT OF COMPUTER SCIENCE, FACULTY OF SCIENCE, UNIVERSITY OF IBADAN, IBADAN, NIGERIA.

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF BACHELOR OF SCIENCE (B.Sc.) IN COMPUTER SCIENCE

MONTH, YEAR

CERTIFICATION

This is to certify that the project titled PROJECTTITLE was completed by Student's Name, with Matriculation Number ……………,, in partial fulfillment of the requirements for the Degree of Bachelor of Science (B.Sc) in Computer Science at the University of Ibadan during the 2023—2024 academic year.

………………………………,

Supervisor's Name

Supervisor

………………………………,

Signature and Date

………………………………,

Prof. A.B. Adeyemo

Head of Department

………………………………,

Signature and Date

DEDICATION

ACKNOWLEDGEMENT

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Word count: 327
Keywords:

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INTRODUCTION

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

2.2 conceptual review

2.2.1 the concept of the topic

2.2.2 the conceptual

2.3 Theoretical frameworks

2.3.1 first theories use images where appropriate

2.3.2 second theory

2.4 Empiral Review – talk about advantage/disadvantes, important, challenges, how long it takes to setup a typical javaj environments,

2.5 summary of literature review

CHAPTER THREE
METHODOLOGY

CHAPTER FOUR

IMPLEMENTATION AND TESTING

IMPLEMENTATION AND TESTING

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

REFERENCES

APPENDIX