BSCS Thesis Skeleton (Ready-to-Fill)

# Preliminaries

Title Page  
Approval Sheet  
Acknowledgement  
Abstract (200–300 words: background, methods, results, conclusion)  
Table of Contents  
List of Tables  
List of Figures  
List of Appendices

# Chapter 1: Introduction

## 1.1 Background of the Study

Introduce the research problem. For system development: describe current manual/legacy system issues and importance of automation. For AI/algorithm: describe real-world problem, global/local research trends, and need for AI solution.

## 1.2 Statement of the Problem

State the general problem, followed by specific problems (numbered). Ensure alignment with objectives.

## 1.3 Objectives of the Study

General Objective: broad goal.  
Specific Objectives: mirror problem statement (e.g., system modules, dataset preprocessing, model training, evaluation).

## 1.4 Significance of the Study

Identify beneficiaries such as students, faculty, administrators, IT staff, researchers.

## 1.5 Scope and Limitation

Clarify coverage (scope) and exclusions (limitations). System Dev: features and environment. AI: dataset classes, computational limits.

## 1.6 Definition of Terms (optional)

Provide alphabetized glossary of specialized terms and acronyms.

# Chapter 2: Review of Related Literature and Studies

## 2.1 Local and Foreign Studies/Literature

Summarize concepts (literature) and empirical works (studies), both local and foreign. Organize thematically. End each theme with a mini-synthesis.

## 2.2 Synthesis of the Review

Summarize the gaps and highlight how the present study will address them.

# Chapter 3: Theoretical and Conceptual Framework

## 3.1 Theoretical Framework

Discuss 2–4 theories or models relevant to the study (e.g., SDLC, ISO/IEC 25010, Neural Network Theory).

## 3.2 Conceptual Framework

Explain the study’s conceptual flow. Insert Paradigm of the Study (IPO or AI workflow diagram) and provide narrative explanation.

# Chapter 4: Research Methodology

## 4.1 Research Design

Describe research type: System Dev → Descriptive-developmental (SDLC). AI/Algorithm → Experimental (AI workflow).

## 4.2 Research Respondents (if applicable)

System Dev: describe respondents for system evaluation. AI/Algorithm: replace with Research Environment (dataset description, hardware specs).

## 4.3 Research Instruments / Tools

List tools and instruments (UML diagrams, databases, programming languages, surveys, labeling tools, metrics).

## 4.4 Research Implementation (SDLC Phases)

System Dev: Planning, Analysis, Design (UML, ERD, UI), Development (coding), Testing.  
AI/Algorithm: Data collection, preprocessing, model training, testing, validation.

## 4.5 Research Deployment (System Testing, User Acceptance)

System Dev: pilot deployment, user acceptance testing. AI/Algorithm: model testing/deployment environment.

## 4.6 Research Evaluation

System Dev: evaluate with ISO/IEC 25010 survey, descriptive stats. AI/Algorithm: accuracy, precision, recall, F1, confusion matrix.

# Chapter 5: Results and Discussions

## 5.1 Presentation of Results

Present system screenshots, tables, survey results, training graphs, confusion matrix, etc.

## 5.2 Discussion of Findings

Interpret results, connect them to objectives and related studies.

# Chapter 6: Conclusion and Recommendations

## 6.1 Conclusion

Summarize findings aligned to objectives (no separate 'Summary' here).

## 6.2 Recommendations

Suggest improvements, scalability, future work (system enhancement, larger dataset, alternative models).

# References

Follow APA 7th or ACM format. Ensure consistency between in-text citations and references.

# Appendices

Appendix A: Letter to Conduct the Study  
Appendix B: Letter Asking Permission to Float the Questionnaire / Conduct Interview  
Appendix C: Documentation during Data Gathering (photos, screenshots)  
Appendix D: Letter Asking Permission to Deploy the System  
Appendix E: Minutes of Proposal Defense and Final Defense  
Appendix F: Curriculum Vitae of Researchers  
Appendix G: Evaluation Instruments