# Final Software Project Development for BSc in MIT Department of Management and Information Technology Faculty of Management and Commerce South Eastern University of Sri Lanka

#### Chapters and Contents for the Final Project Documentation

#### ARRANGEMENT OF CONTENTS

The chapters and contents should be arranged and bind as follows:

- 1 Cover Page & Title Page
- 2 Bona fide Certificate
- 3 Abstract
- 4 Table of Contents
- 5 List of Tables
- 6 List of Figures
- 7 List of Symbols, Abbreviations and taxonomy
- 8 Chapters Ex: 1,2,3,4,5,6,7 & 8
- 9 Appendices
- 10 References

#### Chapter 01: Introduction

- 1.1. Introduction (Briefly about the chapter 1)
- 1.2. Motivation towards the proposed system
- 1.3. Description of the existing process / functions (applicable only if the system exist)
- 1.4. Problem Identification and its drawbacks
- 1.5. Objectives of the proposed system with measurable outcomes
- 1.6. Key processes / function of the proposed system
- 1.7. System Development methods and Methodology . Ex: Waterfall Model
- 1.8. Brief description of the Software, hardware specification to develop the proposed system. (Optional)
- 1.9. Organisation / Time schedule of the system development
  - 1.9.1. Breakdown of tasks and Durations
  - 1.9.2. Gantt chart with Work Schedule
  - 1.9.3. Timeline and work Calendar
- 1.10. Conclusion (Briefly about the chapter 1)

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## Chapter 02: Background Analysis / Literature Review

- 2.1. Introduction (Briefly about the chapter 2)
- 2.2. Details and complete review of the similar kind of system which are in use / developed previously by others.
- 2.3. Background Analysis for the proposed System.
- 2.4 Details about how the proposed system is distinguished (its features, functions, modules...etc.) from previously available system.
- 2.5. Brief introduction of the proposed system /solution
- 2.6. Conclusion (Briefly about the chapter 2)

## Chapter 03: Feasibility Study and Requirement Analysis

- 2.1. Introduction (Briefly about the chapter 3)
- 2.2. Feasibility study for the proposed system
  - 2.2.1. Technical feasibility
  - 3.2.2.Operational feasibility
  - 3.2.3. Economic feasibility
  - 2.2.4. Behavioral Feasibility
- 2.3. Requirement Specification
  - 2.3.1. User Requirements
  - 3.3.2. Functional Requirements
  - 2.3.3. Technical Requirement
  - 3.3.4. Common functionality requirements
- 3.4. Non-Functional Requirements
  - 3.4.1.Product Requirement
  - 3.4.2.Operational Requirement
- 3.5. Software and Hardware Requirements for Implementation
- 2.6. Conclusion (Briefly about the chapter 3)

### Chapter 04: System Analysis & Logical Design

- 4. 1. Introduction (Briefly about the chapter 4)
- 4. 2. System Analysis

- 4.3. Tier / Layered architecture of web components (Only for Web Based System)
- 4.4 .Web Applications Processing (Only for Web Based System)
- 4.5.Logical Design
  - 4.5.1.ER Diagram and entities with its attributes
  - 4.5.2. Decomposition Diagram
  - 4.5.3. Use Case Diagrams -for actor's major interaction with the system
  - 4.5.4. Data Flow Diagram / context diagram
    - 4.5.4.1. Context diagram level 0
    - 4.5.4.2. Context diagram level 1
    - 4.5.4.3. Context diagram level 2,
  - 4.5.5. Structured Chart
  - 4.5.6. Class diagram and methods used in the class diagram
  - 4.5.7. Sequence Diagrams
    - 4.5.7.1. Example Sequence diagram for login
    - 4.5.7.2. Example Sequence diagram for Student registration for a course
    - 4.5.7.3. Example -Lecturer registration for a course
    - 4.5.7.4. Example -Sequence diagram for generating reports ...etc
  - 4.5.8. Activity diagram
  - 4.5.9. State chart diagram for login
  - 4.5.10. Component diagram
  - 4.5.11. Deployment diagram
  - 4.6. Conclusion (Briefly about the chapter 4)

#### Chapter 05: Physical Design and System Development

- 5.1.Introduction (Briefly about the chapter 5)
- 5.2. System development method (Ex: waterfall/spiral/prototype) life cycle
- 5.3. Story board of main interfaces / web pages of the system
- 5.4. Physically designed components of the system
  - 5.4.1. Database relationship
  - 5.4.2. Forms Ex: login form, add new user, change password, delete user.....etc
  - 5.4.3. Report generation screen shot.
- 5.5. Interfaces of the system
- 5.6. Conclusion (Briefly about the chapter 5)

#### Chapter 06: Testing and System Debugging

- 6.1.Introduction (Briefly about the chapter 6)
- 6.2. Different Test cases
- 6.3. Types of testing carried out for System
  - 6.3.1. Unit Testing
  - 6.3.2.Integration Testing
- 6.4. Software Testing Strategies
  - 6.4.1.Black-box testing
  - 6.4.2. White-Box Testing
- 6.5. Debugging Methods / approaches for system debugging
- 6.6. Conclusion (Briefly about the chapter 6)

## Chapter 07: Implementation, Maintenance and User manual with Screen Shot

- 7.1. Introduction (Briefly about the chapter 7)
  - 7.2. System Conversion
  - 7.3. Human, Technical and Procedural requirements for System implementation
  - 7.4. Stages / Types of system Implementation
    - 7.4.1. Direct implementation
    - 7.4.2. Phase implementation
    - 7.4.3. Parallel implementation
  - 7.5. System Maintenance (Ex: Four types of software system maintenance)
  - 7.6. System Maintenance process models.
  - 7.7. User manual with Screen shots -Interfaces & web pages: (Welcome Screen / Home page, Log in pages, Users login page, User name password recover page, Username password recovered page, product/ services, profile, branches, About us, Photo gallery page, Add new user/ item, remove/ delete interfaces....etc)
  - 7.8. Conclusion (Briefly about the chapter 7)

## Chapter 08: Future Improvements and Conclusion

- 8.1. Introduction (Briefly about the chapter 8)
- 8.2. Newly developed System's Features and achieved results
- 8.3. Future improvements & future avenue
  - 8.3.1. Phase I -Suggestion for future work
  - 8.3.2. Phase II-Suggestion for future work
- 8.4. Conclusion
- 8.5. Conclusion (Briefly about the chapter 8)

#### Appendices

References (Recommended IEEE, Harvard, APA)