DCSD/DSE/DBIS Final Project

INTRODUCTION

The System Development project is one of the core modules in diploma program. The topic for the project should be relevant to Information Technology and it shall be selected in consultation with the course director. The project is providing an opportunity for participants to apply concepts, methods and skills acquired during the course to solve a problem in a real-life business or organizational situation.

The project is carried out in groups. Students are not allowed to carry out the project individually. The group size should be **2-4**.

LEARNING OUTCOMES

At the end of this module, students should be able to:

1. Identify project scope and Apply data collection techniques.
2. Analyze a given system.
3. Design a system to meet requirements.
4. Use Programming to convert design in to a implementation.
5. Use testing strategies to test requirements of the system.
6. Write a standard report.

CONTENTS

No	Contents	Learning Outcomes
1	Project Scope	1
2	Data Collection	1
3	System Analysis	2
4	Design a computerized system	3
5	Develop a computerized system	4
6	Software Testing	5
7	Report Writing	6

PROJECT SELECTION AND REGISTRATION

Students are required to design a computerized system for a selected company. When students select a project, scope should be aligned with the group size. The students are allowed to carry out the project in two ways.

- Engineer software for a manual system.
- Engineer existing software to improve an existing computerized system.

After selecting a company and a project title the students are required to meet the course director for registration of the project.

PROJECT SUCCESS PROCEDURE

- Study previous projects in the library.
- Conduct a literature review on available solutions.
- Periodic discussions with the supervisor.
- Walk through the lecture notes before applying theories.
- Effective discussions among project members.
- Active participation in the project.

FINAL PROJECT CONTINUATION

Steps:

1) Make a group and come up with a project idea
2) Proposal submission
3) Proposal Viva → Accept/reject
4) Do the project → a working product
5) Write final report → get help from supervisor
6) Report submission – Spiral (temporary version)
7) Final viva – Present the product, correct your report
8) Submit a hard binding copy

   *Meet supervisor get advices regularly. Maintain a record book.

The panel of lecturers walks through the submitted proposals by student groups. The project groups are assigned supervisors if proposals are approved by the panel. The student's groups should be assigned supervisor to discuss project activities and progress. The log sheet should be used to record progress of each meeting with the supervisor.

LOG SHEET

The format of the log sheet is given below. Use separate log sheet for each meeting and keep all with the students in the group. Viva is eligibility is decides by comments given by the supervisor.

Meeting Date	Students Indices (participated)	Supervisor Comments	Signature of the supervisor

FINAL PROJECT SUBMISSION

Students are requested to bring a draft copy of the report (not bound) for the viva. Students are requested to refer the sample report on the NIBM LMS before finalizing the project report. Hard bound copy should be submitted only after the viva is given to the supervisor and his/her approval is obtained.

PROJECT REPORT

a) **REPORT STRUCTURE**

   Cover page and spine

   This should be hard bounded, preferably in **navy blue** leather or Rexene.

   The Cover Page

   Project Title
   Name of the Institute
   Name of the Division

Candidates' Names with Indices

Year of Submission

The Spine

Title of the project
Year of submission in letters of suitable size going from top to bottom.

Title Page

The title page contains the title of the project, authors, name of the program (Diploma in Software Engineering), name of supervisor, name of institution (Management Information System division, National Institute of Business Management), date and the following declaration.

"The project is submitted in partial fulfillment of the requirement of the Diploma of Computer System Design of National Institute of Business Management."

Declaration Page

The page should contain the following signed declaration.

"I certify that this project does not incorporate without acknowledgement, any material previously submitted for a Diploma in any institution and to the best of my knowledge and belief ,it does not contain any material previously published or written by another person or myself except where due reference is made in the text. I also hereby give consent for my project report, if accepted, to be made available for photocopying and for interlibrary loans, and for the title and summary to be made available to outside organizations"

Students name, number and, signature (*Give in table form)
Supervisor's name, signature and, date
Course director's name, signature and, date

Preamble

This section should include;

Abstract – a summary of the project carried out. (Maximum 300 words)

List of Keywords

List of Figures

List of Tables

List of Acronyms and Abbreviations

Acknowledgement

Main Chapters

Chapter 1: Introduction

The section provides introduction of the project.Main sub headings are below.

    1.1 Introduction of the Organization.

    1.2 Organization Structure.

    1.3 CurrentOperations in Organization.

    1.4 Users and Responsibilities Organization.

    1.5 Problem Definition.

    1.6 ProjectObjectives.

    1.7 Proposed Solution.

    1.8 Chapter Summery.

Chapter 2: Methodology

The section describes the plan which will be used to reach the solution. Main sub headings are below.

    2.1 Introduction

    2.2 Data Collection Method(s)

    2.3 Software Process Model

    2.4 Software Development Tools

    2.5 Testing Strategies

2.6 Implementation Plan

2.7 Chapter Summery

Chapter 3: Analysis

The section describes the way of analyzing the problem. Main sub headings are below.

3.1 Introduction.

3.2 UML Diagram.

Use Case Diagram of CurrentSystem

Use Case Diagram of ProposedSystem.

Class Diagram of Proposed System.

Sequence Diagrams (Each Use case) for Proposed System.

3.3 ER Diagram of the Proposed System.

3.4 Chapter Summery

Chapter 4: Solution Design

The section presents the design of the proposed solution. The student should use the following components to present the system design.

4.1 Introduction.

4.2 Interface Design

Each interface should have Interface Number, Interface Name, Description and, pseudo code.

4.3 Database Design

Each table should have Table Number, Table Name and Primary Key, Foreign Keys (Not Compulsory) and Description.

4.4 Report Layout Design

Each report layout should have Report Layout Number, Report Layout Name and Description.

Chapter 5: Conclusion

The section summarizes the achievements and weaknesses of the project designed and implemented briefly.

References

List any books, articles, lecture notes, web sites or other documents used to obtain information to carryout succeed your project. Should use the Harvard referencing format.

Appendices

The project Schedule.
Letter Issued by the organization.
Questioners and Interview Questions …ETC
Meeting Minutes
Log Sheet
Reviewed Documents
CD with software setup and other configuration files.

b) PROPOSAL AND FINAL REPORT FORMATTING

Margins	Top | Bottom | Rightat least 1| Leftat least 1.5
Paper size and quality	A4 size white paper80gsm
Font type	Times New Roman

Font size	Chapter Headings	14pt
	Sectional headings	13pt
	Others	12pt

Line spacing	1.5
Justification	All text should be fully justified
Page numbering	Page numbers should appear on the footer as centered text
	Pages in the preamble should be in roman numbering (I, ii..)
	Pages in the main body should be in Arabic numbering (1, 2…)

PROJECT PROPOSAL CHAPTERS

Chapter 1: Introduction

The section provides introduction of the project. Main sub headings are below.

1.1 Introduction of the Organization.

1.2 Organization Structure.

1.3 Current Operations in Organization.

1.4 Users and Responsibilities Organization.

    (Context for current system)

1.5 Problem Definition.

1.6 Project Objectives.

1.7 Proposed Solution.

    (Context for proposed system)

Chapter 2: Methodology

The section describes the plan which will be used to reach the solution. Main sub headings are below.

2.1 Introduction

2.2 Data Collection Method(s)

2.3 Software Process Model

2.4 Software Development Tools

2.5 Testing Strategies*

2.6 Project Plan (WBS, timeline)

FINAL REPORT COVER PAGE

Sample cover page format is given below. Students are required to make changes to the title according to the project. Use same size and type.

Hotel Reservation System

Diploma in Software Engineering

Final Project Documentation

2019.1F

School of Computing and Engineering

National Institute of Business Management

Colombo-7

Design stage   week 5-week 8

Implementation stage   week 8-week 16

FINAL EVALUATION

Proposal	-	20%
Final Report	-	30%
Final Software	-	30%
Final Viva	-	20%
Total Marks	-	100%