



De La Salle University - Dasmariñas

**A. Dela Cruz Maternity Hospital
Billing and Patient File Management - Information System
BPFM-IS**

2000

An Undergraduate thesis Special Problem

Presented to

The Faculty Computer Studies Department

College of Science

De La Salle University – Dasmariñas

Dasmariñas, Cavite

In Partial Fulfillment

Of the Requirements for the Degree

Bachelor of Science in Computer Science

By

Macuja Rey Anthony V.

Petalba Rizal G. Jr.

March 2000

AKLATANG EMILIO AGUINALDO ARCHIVES

05 APR 2000

Table of Contents

Abstract	
List of Tables	
List of Figures	
List of Appendices	
Acknowledgement	
1.0 Introduction	
1.1 Background of the Study	1-1
1.2 Statement of the Research Problem	1-2
1.3 Statement of Objectives	
1.3.1 General Objectives	1-3
1.3.2 Specific Objectives	1-3
1.4 Significance of the Study	1-4
1.5 Scope and Limitations of the Study	1-5
1.6 Methodology of the Study	1-6
2.0 Review of Related Literature	2-1
3.0 Theoretical Framework	
3.1 Statement of Assumptions	3-1
3.2 Operational Definitions	
3.2.1 Definition of Terms	3-2
3.2.2 Definition of Processes	3-6
3.3 Theories used in the Study	3-8
4.0 The Existing System	
4.1 Description of the System	4-1
4.2 Definition of Data Capture	4-4
4.3 Inputs	4-12
4.4 Process	4-14
4.5 File	4-23
4.6 Outputs	4-33
4.7 Data Flow Diagram	4-34
4.8 Problem Areas	4-53



5.0 The Proposed System	
5.1 System Overview	5-1
5.2 System Objectives	5-7
5.3 Scope	5-8
5.4 System Justification	5-9
6.0 Design	
6.1 Files	6-1
6.2 Process	6-6
6.3 Outputs	6-10
7.0 Implementation	
7.1 Resource Requirements	
7.1.1 Software Requirements	7-1
7.1.2 Hardware Requirements	7-2
7.1.3 Human Resource Requirements	7-3
7.2 Installation Plans	
7.2.1 System Installation	7-5
7.2.2 Training Plans	7-6
7.2.3 Conversion Plans	7-10
7.2.4 Testing	7-11
8.0 Cost Benefit Analysis	
8.1 Benefits	
8.1.1 Tangible Benefits	8-1
8.1.2 Intangible Benefits	8-3
8.2 Cost	
8.2.1 Development Cost	8-4
8.2.2 Implementation Cost	8-6
8.2.3 Annual Operating & Savings Cost	8-7
8.3 Comparing Cost and Benefits	
8.3.1 Payback Analysis	8-9
8.3.2 Return on Investments	8-10
9.0 Conclusions and Recommendations	9-1

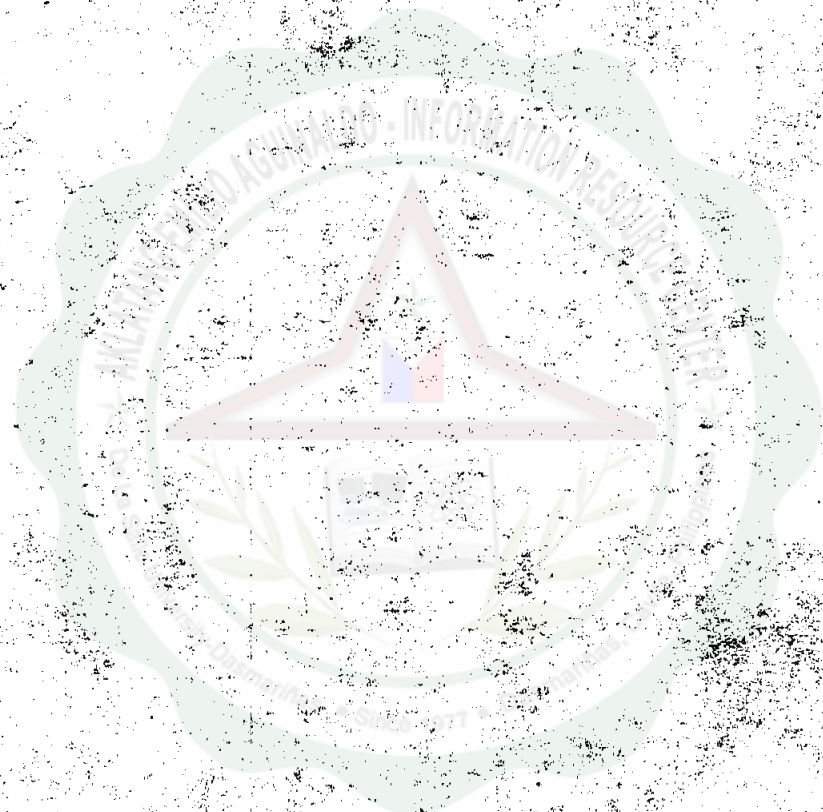
 De La Salle University - Dasmariñas

Appendices

References

Curriculum Vitae

Resource Persons





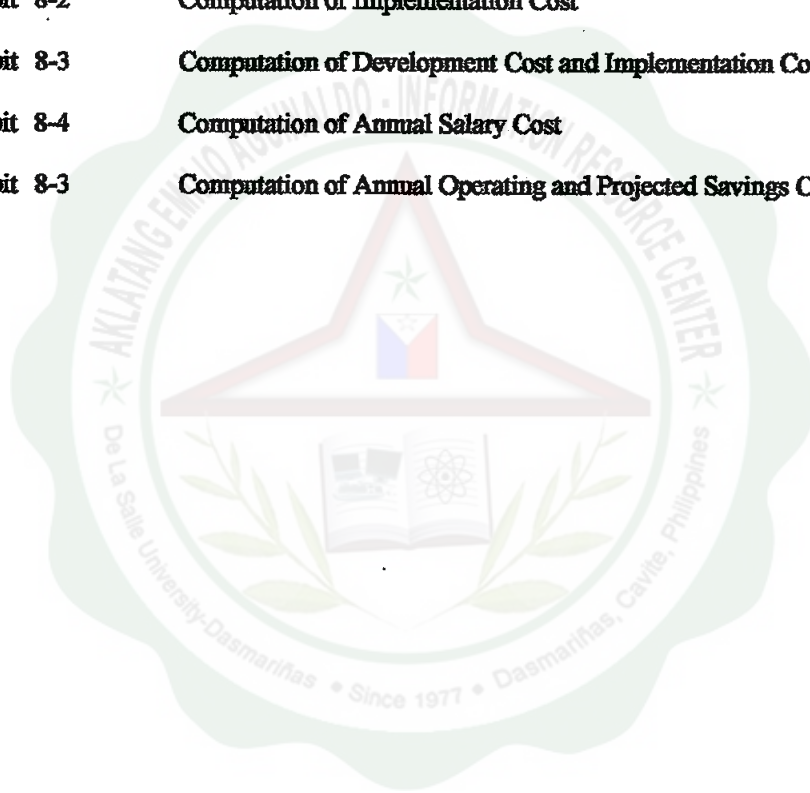
Abstract

The information system on Billing and Patient File Management is developed for the specific use of Angela M. Anggaco, head personnel and record keeper of A. Dela Cruz Maternity Hospital located at 910 Crescent St. Caridad, Cavite City. The study covers all the processes done in file management of each patient in the said institution, thus the proposed system handles all the needed records in a given transaction. The application system is developed using Microsoft Visual Basic Professional Edition Version 5.0 as the programming language. The database engine used in handling the records is Microsoft Access 97. The objectives of the system are: to provide the user with information regarding a resident patient by simply browsing the master file; to lessen the burden of typing or generating a Certificate of Live Birth and Medical Certificate every time a certain patient ask for a copy; to improve the accuracy and efficiency in the computation of billing statement; and to provide hard copy of reports and documents necessary in a medical institution.



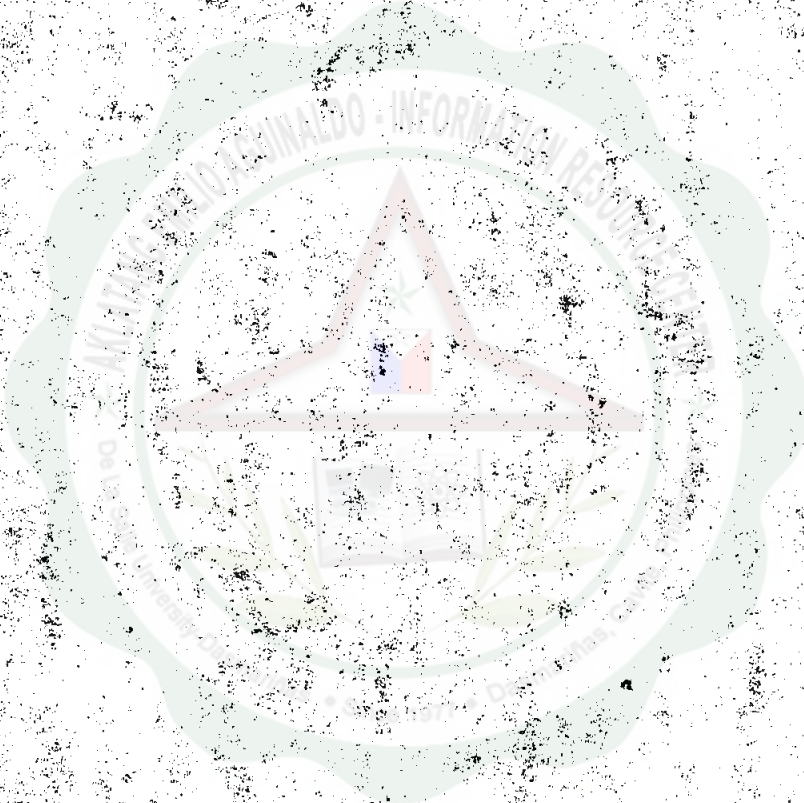
LIST OF TABLES

Table 7-1	System Installation schedule	7-5
Table 7-2	Training Schedule	7-8
Exhibit 8-1	Computation of Development Cost	8-6
Exhibit 8-2	Computation of Implementation Cost	8-7
Exhibit 8-3	Computation of Development Cost and Implementation Cost	8-7
Exhibit 8-4	Computation of Annual Salary Cost	8-8
Exhibit 8-3	Computation of Annual Operating and Projected Savings Cost	8-9



LIST OF FIGURES

Figure 1-1	System Development Cycle	1-7
Figure 3-2	Notational Elements of ER Diagram	3-15
Figure 3-3	Symbols used in DFD	3-21





LIST OF APPENDICES

Appendix A	Entity List	A-1
Appendix B	Data Dictionary	B-1
Appendix C	Screen Design	C-1
Appendix D	Program Flowchart	D-1
Appendix E	Sample Forms	E-1
Appendix F	Printer Price List	F-1
Appendix G	Entity Relationship Diagram	G-1
Appendix H	Certification (Adviser)	H-1
Appendix I	Certification (CRC Representative)	I-1
Appendix J	Certification (Editor)	J-1
Appendix K	Certification (Panel)	K-1
Appendix L	Special Problem Clearance	L-1
Appendix M	Certificate of Acceptance	M-1
Appendix N	Certificate of Installation	N-1
Appendix O	Certificate of Training	O-1