Computer System For Mental Health Services

This project is submitted in partial fullfilment of the award of the DIPLOMA IN COMPUTER STUDIES Of the HIGHER TECHNICAL INSTITUTE

CS/197

Project Supervisor: Mrs Maria Theodorou

Design by
KYRMITSI DESPO

JUNE 1998

TECHNICAL INSTITUTE
2791

CHAPTER 1
INVESTIGATION PHASE

The purpose of the Investigation phase is to determine whether a problem or need requires a full systems development effort or another course of action.

The system to be developed requires the computerization of specific operations of the Mental Health Services. The system will deal with data from patients. Reports and graphs are mainly required for reports and statistical analysis purposes.

This chapter will deal with the first phase of the System Analysis Life Cycle, the INVESTIGATION PHASE. This phase is composed of the Activity 1:Initial Investigation and the Activity 2: Feasibility Study

TABLE OF CONTENTS

1. INVESTIGATION PHASE.....1

1.1 Activity 1: INITIAL INVESTIGATION.....2

1.1.1 Information about the organization.....2

1.1.1.1 Introduction.....2

1.1.1.2 Objectives of the Mental Health Services.....3

1.1.1.3 Long term goals of the Mental Health Services.....3

1.1.1.4 Services Network.....4

1.1.1.5 Activities.....6

1.1.1.6 External Medical Clinics.....7

1.1.1.7 Communal Psychiatry.....7

1.1.1.8 Social associations for the Mental Health.....8

1.1.1.9 Psychotherapy unit.....8

1.1.1.10 Therapeutic approach.....8

1.1.1.11 Training for prevention.....9

1.1.1.12 Fighting against prejudice.....9

1.1.1.13 Education of personnel.....9

1.1.1.14 Expenses.....10

1.1.1.15 Organizational structure.....11

1.1.1.16 Policies.....12

1.1.2 Information about the various departments.....13

1.1.2.1 Authority and responsibility relationships.....13
1.1.2.2 Job duties of each department.....13
1.1.2.3 Interpersonal relationships.....16
1.1.2.4 Information needs.....17
1.1.3 Information about the work.....18
1.1.3.1 Tasks and work flows.....18
1.1.3.2 Performance criteria.....19
1.1.3.3 Control mechanism.....19
1.1.4 Information about the environment.....20
1.1.4.1 Introduction.....20
1.1.4.2 Resources available.....20
1.1.5 Problems.....20
1.1.6 Recommendations.....21
1.2 Activity 2: FEASIBILITY STUDY.....22
1.2.1 Introduction.....22
1.2.2 Recommendations.....22
1.2.3 Financial Feasibility.....25
1.2.3.1 Intangible / Tangible costs and benefits.....25
1.2.3.2 Existing system – operating costs.....26
1.2.3.3 New System – Developmental costs.....27
1.2.3.4 New System – Operating costs.....27
1.2.4 Operational Feasibility.....29
1.2.5 Technical Feasibility.....30

1.2.6 Human Factor Feasibility.....30

1.2.7 Schedule Feasibility.....30

2. ANALYSIS AND GENERAL DESIGN PHASE.....31

2.1 Activity 3: Existing System Review.....32

2.1.1 Introduction.....32

2.1.2 Existing procedures.....32

2.1.3 Data Files.....32

2.1.4 Current System Inputs.....33

2.1.5 Current System Outputs.....33

2.2 Activity 4: NEW SYSTEM REQUIREMENTS.....34

2.2.1 Introduction.....34

2.2.2 User Specification document.....34

2.2.2.1 Goals and objectives of the Mental Health Services.....34

2.2.2.2 System purposes / Major functions.....34

2.2.2.3 Changes.....34

2.2.2.4 Processing.....35

2.2.2.5 Data Dictionary.....35

2.2.2.6 Outputs of the system.....35

2.2.2.7 Inputs to the system.....39

2.2.2.8 User interface with the system.....40

2.3 Activity 5: NEW SYSTEM DESIGN.....41

2.3.1 Activity Description.....41

2.3.2 New System Design Specification document....41
2.3.2.1 Data files....41
2.3.2.2 Performance criteria....42
2.3.2.3 Security and control....42
2.3.2.4 Software packages....44
2.3.2.5 Technical support specification....44
2.4 Activity 6: IMPLEMENTATION AND INSTALLATION PLANNING....45
2.4.1 Introduction....45
2.4.2 Preliminary Detailed Design and Implementation plan....46
2.4.3 Preliminary System plan....46
2.4.4 User Training outline....47
2.4.5 Preliminary Installation plan....47

3. DETAILED DESIGN AND IMPLEMENTATION PHASE....48
3.1 Activity 7: TECHNICAL DESIGN....48
3.1.1 Introduction....48
3.1.2 Detailed Design Specification document....48
3.1.2.1 Application Software Design....48
3.1.2.2 Backup Requirements and Recovery....48
3.1.2.3 Security and control measures....49
3.2 Activity 8: TEST SPECIFICATION AND PLANNING....50
3.3 Activity 9: PROGRAMMING AND TESTING....51
3.4 Activity 10: USER TRAINING....52

3.5 Activity 11: SYSTEM TEST.....53

4. INSTALLATION PHASE.....54

4.1 Activity 12: FILE CONVERSION.....54

4.2 Activity 13: SYSTEM INSTALLATION.....54

5. REVIEW PHASE.....55

5.1 Activity 14: DEVELOPMENTAL RECAP.....55

5.2 Activity 15: POST-IMPLEMENTATION REVIEW.....55

5.2.1 General Review of the new system.....56

APPENDICES

APPENDIX A: Interview plans

APPENDIX B: Reports and Documents form the existing system

APPENDIX C: Software / Hardware prices

APPENDIX D: Systems Analysis Appendices

APPENDIX E: Diagrams

APPENDIX F: Data Dictionary