



HIGHER TECHNICAL INSTITUTE  
COURSE IN COMPUTER STUDIES

DIPLOMA PROJECT

A NURSERY SCHOOL WEBSITE  
INFORMATION SYSTEM

CS/387

DEMETRIS HADJIELIA  
4/6/2008

|                                  |            |
|----------------------------------|------------|
| HIGHER<br>TECHNICAL<br>INSTITUTE | PROJECT NO |
|                                  | 3732       |

# A NURSERY SCHOOL WEBSITE INFORMATION SYSTEM

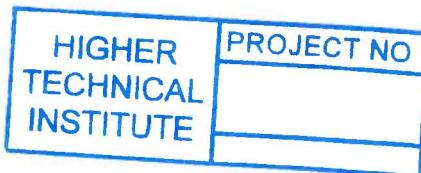
Project Number: CS/387

Project Report Submitted by: Demetris Hadjielia

In partial fulfillment of the requirements for award of the diploma in Computer Studies of the Computer Studies Department of Higher Technical Institute, Nicosia Cyprus

Project Supervisor: Dr. Panicos Masouras  
BSc, MSc, MCCS  
Senior Lecturer in  
Computer Studies Courses  
Higher Technical Institute  
Nicosia - Cyprus

External Assessor: Giannos Aletraris



## **Methodology of SDLC**

### **Investigation phase**

Activities:

- 1 Initial investigation
- 2 Feasibility Study

Purpose: To study the problem in-depth and determine whether it requires a full system development or another action is appropriate.

### **Analysis and General Design Phase**

Purpose: To establish definitions and descriptions of existing system. Users become involved in understanding their own problems and on determining the value of proposed new methods. These definitions and descriptions will ultimately become new system.

### **Detail Design and Implementation Phase**

Computer Oriented Work

1. Programs written and tested
2. Group of Users are trained
3. User Confirmation and Acceptability

### **Installation Phase**

1. Conversion from the existing procedures to new ones
2. Remaining Users are trained

### **Review Phase**

Review what been accomplished

## **Introduction**

As graduated student of the HTI it is assigned to me a project based on which we have to develop a Nursery School website information system. The system should keep at least information about the members, the children and the staff of the school.

Additionally it will provide the basic scheduling facilities for the activities of the school as well as a calendar of events. Furthermore it will provide the basic accounting facilities for handling the financial activities of the school. The system will be flexible as possible for drawing queries based on various parameters, on line help and general reports in suitable forms. Security measures will be provided: there are user levels and passwords

# CASTLE NURSERY SCHOOL WEB PAGE INFORMATION SYSTEM

## Index

| Content   | Page      |
|---|-----------|
| <b>1. INITIAL INVESTIGATION PHASE.....</b>                | <b>1</b>  |
| <b>1.1 INVESTIGATION PHASE.....</b>                       | <b>1</b>  |
| <b>1.1.1 INTRODUCTION.....</b>                            | <b>1</b>  |
| <b>1.1.2 GOAL OF THE PROJECT.....</b>                     | <b>2</b>  |
| <b>1.1.3 INFORMATION ABOUT THE SCHOOL.....</b>            | <b>3</b>  |
| <b>1.1.3.1 GENERAL INFORMATION.....</b>                   | <b>3</b>  |
| <b>1.1.3.2 DEPARTMENTS.....</b>                           | <b>4</b>  |
| <b>1.1.3.3 OBJECTIVES.....</b>                            | <b>4</b>  |
| <b>1.1.3.4 ORGANIZATION TABLE.....</b>                    | <b>5</b>  |
| <b>1.1.3.5 SCHOOL POLICIES.....</b>                       | <b>5</b>  |
| <b>1.1.4 DEFINING THE PROBLEM.....</b>                    | <b>7</b>  |
| <b>1.1.5 EXISTING PROCEDURES.....</b>                     | <b>9</b>  |
| <b>1.1.6 INFORMATION ABOUT THE PEOPLE.....</b>            | <b>10</b> |
| <b>1.2 FEASIBILITY STUDY.....</b>                         | <b>11</b> |
| <b>1.2.1 INTRODUCTION.....</b>                            | <b>11</b> |
| <b>1.2.2 TECHNICAL FEASIBILITY.....</b>                   | <b>11</b> |
| <b>1.2.2.1 RECOMMENDATIONS.....</b>                       | <b>11</b> |
| <b>1.2.3 FINANCIAL FEASIBILITY.....</b>                   | <b>14</b> |
| <b>1.2.3.1 DEVELOPMENT COSTS.....</b>                     | <b>14</b> |
| <b>1.2.3.2 OPERATIONAL COSTS.....</b>                     | <b>16</b> |
| <b>1.2.3.3 OPERATIONAL BENEFITS.....</b>                  | <b>16</b> |
| <b>1.2.4 OPERATIONAL FEASIBILITY.....</b>                 | <b>17</b> |
| <b>1.2.5 SCHEDULE FEASIBILITY.....</b>                    | <b>17</b> |
| <b>1.2.6 POLICY LEVEL DECISION.....</b>                   | <b>18</b> |
| <b>2. ANALYSIS AND GENERAL DESIGN PHASE.....</b>          | <b>19</b> |
| <b>2.1 EXISTING SYSTEM REVIEW.....</b>                    | <b>19</b> |
| <b>2.2 NEW SYSTEM REQUIREMENTS.....</b>                   | <b>19</b> |
| <b>2.2.1 OVERVIEW NARRATIVE.....</b>                      | <b>19</b> |
| <b>2.2.2 SYSTEM FUNCTION.....</b>                         | <b>19</b> |
| <b>2.2.3 PROCESSING.....</b>                              | <b>19</b> |
| <b>2.2.3.1 CONTEXT DIAGRAM.....</b>                       | <b>19</b> |
| <b>2.2.3.2 DIAGRAM 0.....</b>                             | <b>20</b> |
| <b>2.2.4 DICTIONARY.....</b>                              | <b>20</b> |
| <b>2.2.5 DATA STRUCTURES AND DATA ACCESS DIAGRAM.....</b> | <b>20</b> |
| <b>2.2.6 PROCES DESCRIPTIONS.....</b>                     | <b>20</b> |
| <b>2.2.7 INPUTS TO THE SYSTEM.....</b>                    | <b>20</b> |
| <b>2.2.8 USER INTERFACE WITH SYSTEM.....</b>              | <b>20</b> |

|            |  |           |
|------------|--|-----------|
| <b>2.3</b> | <b>NEW SYSTEM DESIGN.....</b>                        | <b>21</b> |
| 2.3.1      | OVERVIEW NARRATIVE.....                              | 21        |
| 2.3.2      | SYSTEM FUNCTION.....                                 | 21        |
| 2.3.3      | SECURITY AND CONTROL.....                            | 21        |
| 2.3.3.1    | USER AUTHENTICATION.....                             | 21        |
| 2.3.5      | TECHNICAL SUPPORT SPECIFICATION.....                 | 21        |
| <b>3.</b>  | <b>DETAILED DESIGN AND IMPLEMENTATION PHASE.....</b> | <b>22</b> |
| <b>3.1</b> | <b>TECHNICAL DESIGN.....</b>                         | <b>22</b> |
| 3.1.1      | INTRODUCTION.....                                    | 22        |
| 3.1.2      | SECURITY AND CONTROL MEASURES.....                   | 22        |
| <b>3.2</b> | <b>PROGRAMMING AND TESTING.....</b>                  | <b>22</b> |
| <b>3.3</b> | <b>TEST SPECIFICATIONS AND PLANNING.....</b>         | <b>22</b> |
| 3.3.1      | INTRODUCTION.....                                    | 22        |
| 3.3.2      | UNIT TEST.....                                       | 23        |
| 3.3.3      | INTERGRATION TESTING.....                            | 23        |
| 3.3.4      | FUNCTION TESTING.....                                | 23        |
| 3.3.5      | SYSTEM TESTING.....                                  | 23        |
| 3.3.6      | ACCEPTANCE TESTING.....                              | 23        |
| <b>4.</b>  | <b>INSTALLATION PHASE.....</b>                       | <b>24</b> |
| 4.1        | SYSTEM INSTALATION.....                              | 24        |
| <b>5.</b>  | <b>REVIEW PHASE.....</b>                             | <b>25</b> |
| 5.1        | INTRODUCTION.....                                    | 25        |
| 5.2        | DEVELOPMENT DECAP.....                               | 25        |
| 5.3        | POST IMPLEMENTATION REVIEW.....                      | 25        |
| 5.4        | SYSTEM EXPLANATORY.....                              | 25        |

|                                       |    |
|---------------------------------------|----|
| <b>APPENDIX A</b>                     |    |
| PROJECT SPECIFICATIONS.....           | 26 |
| <b>APPENDIX B</b>                     |    |
| GANTT CHART.....                      | 28 |
| <b>APPENDIX C</b>                     |    |
| PROGRAMMING LANGUAGES.....            | 29 |
| <b>APPENDIX D</b>                     |    |
| ORGANIZATION CHART OF THE SCHOOL..... | 32 |
| <b>APPENDIX E</b>                     |    |
| CONTEXT DIAGRAM OF THE SCHOOL.....    | 33 |
| <b>APPENDIX F</b>                     |    |
| LOGICAL DFD DIAGRAM LEVEL 0.....      | 34 |
| <b>APPENDIX G</b>                     |    |
| LOGICAL DFD DIAGRAM.....              | 35 |
| <b>APPENDIX G1</b>                    |    |
| DATA STRUCTURES.....                  | 39 |
| <b>APPENDIX G2</b>                    |    |
| DATA STORES.....                      | 48 |
| <b>APPENDIX G3</b>                    |    |
| PROCESSES.....                        | 67 |
| <b>APPENDIX I</b>                     |    |
| INPUT SCREENS.....                    | 86 |