Office Management System for smart shirts



I. U. Manthilake108567G(MSCIT/09/038)

Supervised by: Dr. Thilak Chaminda
February 2015

This dissertation is submitted in partial fulfillment of the requirement of the Degree of MSc in Information Technology

Of

The University of Moratuwa

Declaration

I certify that this dissertation does not incorporate, without acknowledgement, any material previously submitted for a degree and to the best of my knowledge and it does not contain any material previously published or written by another person or myself except where due reference is made in text. I also hereby give consent for my dissertation, 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.

Signature	



Acknowledgement

The writing of this dissertation has been one of the most significant academic challenges I have ever had to face. Without the support, patience and guidance of the following people, this dissertation would not have been completed. It is to them that I owe my deepest gratitude.

- Dr. Thilak Chaminda who undertook to act as my supervisor despite his many other academic and professional commitments. His wisdom, knowledge and commitment to the highest standards inspired and motivated me. His enduring encouragement and his practical advice have been an inestimable source of support for me during this process of completing the dissertation.
- My Subordinates at the working place, who inspired my final effort despite the enormous work pressures we were facing together.
- Top management vants all managers in vanasir shirts who gave their fullest support to implement the system and helping the 9th various difficulties in many stages of the development life cycle.
- Shanthi Mudalige, my wife, without whom this effort would have been worth nothing. Your love, support and constant patience have taught me so much about sacrifice, discipline and compromise even if there were times when you said "I told you so". Kavishka my son who tolerated in many ways and missing his dad for his many important occasions, still encourage me to concentrate on the dissertation with his love.

Abstract

Smart shirts Lanka Limited is a sister company of Smart shirts Hong Kong which is a subsidiary of M/s Younger Group of company limited, an apparel manufacture in People's Republic of china. Smart shirts operate manufacturing facilities in various parts of Asia such as in Srilanka, Philippines, China (Chong Quing, Ningbo and Jilin) and Vietnam. There are over 30,000 personnel employed in these locations to perform different functions, processers and task in different positions.

In smart shirts we believe in quality. Besides having the reputation of being one of the finest shirts makers in the world in terms of workmanship, our concepts of quality extends to the end user, quality of on-time delivery, and the quality of our corporate social responsibility.

Smart shirts Srilanka has scattered around the Srilanka having eight factories and a two Warehouses with over 10,000 employees. Smart shirts produces high fashion garments to a reputed international clientele such as Polo, RalphLauren, LLBean, Jos ABank, Dillard's, JCrew, and Nautica which are sold in for most Departmental Stores throughout the United States and Europe Dissertations

Smart shirts is a company that always try to identify the limitations, inefficiency, and un procedural process that need procedures to be in place, to improve inefficiencies and to get rid of the limitations. in this process it was identified smart shirts has some issues in few areas that can be improved a well-designed computer system.

Smart shirts has decided to introduce a new Office Management system which is going to consist of document sharing system, meeting management system and IT related help desk system in order to share the documents to relevant nominated staff or staff groups, initiating, managing meetings and sending meeting minutes to staff or staff groups without using the E-mails, since the e-mail system is to going to be outsourced to a company. Current IT related problems reporting are happening through by using telephone, e-mails, and warble communication that doesn't keep records methodically, and the process of completing the issues/problems will not be closely monitored and recorded are major draw backs of the current process.

Table of Contents

Chapter 1 - Introduction	
1.1. Introduction	09
1.2 Background and Motivation	10
1.3 Problem in Brief	10
1.4 Aim and Objectives of the project	11
1.5 Proposed solution	12
1.6 Structure of the Report	12
1.7 Summary	13
Chapter 2 - Literature Review	
2.1. Introduction	14
2.2 Document sharing function	14
2.2.1 Literature review - Document sharing system available in the market	t14
2.3 Meeting management function	15
2.3.1 Literature review - Meeting management system available in the ma	rket16
2.4 IT help Desk system versity of Moratuwa, Sri Lanka.	16
2.4.1 Literature review - IT help desk system available in the market	17
2.5 Issues and limitations	17
2.6 Summary	17
Chapter 3 - Technology and Architecture	
3.1. Introduction	19
3.2 Technology	20
3.2.1 XAMPP	20
3.2.2 PHP	20
3.2.3 MySQL	21
3.2.4 APACHE	21
3.2.5 Java Scripts	21
3.2.6 HTML	22
3.2.7 Windows Operating System	22
3.3 Architecture	22
3.4 System Approach	24
3.4.1 The Spiral Model	24
3.4.2 Step by step approach	26

3.5 Summary	26
Chapter 4 - Analysis and Design	
4.1 Introduction	27
4.2. Context Diagram in brief	29
4.2.1 Benefits of a Context Diagram	30
4.2.2 Context Diagram of the Office management system	30
4.3. ER Diagram	33
4.4. Use Case Diagram	34
4.5. Database Implementation	36
4.6 Summary	37
Chapter 5 – Implementation	
5.1. Introduction	38
5.2 Program Logic of the Three Major functions in OMS using Flow charts	38
5.2.1 Meeting management function flow chart	39
5.2.2 Activities in the Meeting management system	40
5.2.3 Document sharing function flow chart	41
5.2.3 Document sharing function flow chart University of Moratuwa, Sri Lanka. 5.2.4 Ctivities in the document sharing function Electronic Theses & Dissertations	42
5.2.5 THelp desk function flow chart WWW.IIO.IIIIt.ac.ik	43
5.2.6 Activities in the IT help Desk system	
5.2.7 Proposed notifications distribution in the help desk system	45
5.3 Implementation of the OMS	46
5.3.1 Document Sharing	46
5.3.1.1 User Login	46
5.3.1.2 Create Groups	47
5.3.1.3 Share Document by Groups	47
5.3.1.4 Share Document by Individual	48
5.3.2 Meeting Management	48
5.3.2.1 Initiate Meeting by Groups	48
5.3.2.2 Initiate Meeting by Individuals	49
5.3.3 IT Help Desk	50
5.3.3.1 Initiate Problem Reporting Form	50
5.3.3.2 IT User Actions on the PRF	51
5.3.3.3 Setup Problem Indicators	51
5.4 Summary	52

Chapter 6 – Evaluation	
6.1. Introduction	53
6.2. Black Box Testing	53
6.3. User Interface Testing	54
6.4. Functional testing	56
6.5. Acceptance testing	60
6.6. Evaluate System	60
6.7 Summary	63
Chapter 7 – Conclusion and Further Work	
7.1. Introduction	64
7.2. Achievement of the Aim and the Objectives of the project	64
7.3. Challenges of the project and Problems encountered	64
7.4. Usability Evaluation	65
7.5. Further work	68
7.6. Summary	68
Reference	69
Liniversity of Moratuwa Sri Lanka	71
1. Table Structures of the Database WWW.IIO. Init. ac.1k	71
2. OMS Test Cases	81

List of Figures/Tables

1. Figure 3.1: Client server architecture	19
2. Figure 3.2: Model View Controller	22
3. Figure 3.3: Generic Spiral Model	_25
4. Figure 4.1: Phases of Systems Development Life Cycle	29
5. Figure 4.2: OMS Context Diagram	32
6. Figure 4.3: ER Diagram	_33
7. Figure 4.4: Use case Diagram – Document sharing and Meeting management	34
8. Figure 4.5: Use case Diagram – IT help Desk and OMS Admin	35
9. Figure 4.6: OMS table relationship	36
10. Figure 5.1: Meeting Management Function flow	39
11. Figure 5.2: Document Sharing Function flow	41
12. Figure 5.3: IT Help desk high-level function flow	43
13. Figure 5.4: Proposed IT Help desk Notification table	45
14. Figure 5.5: User login Screen University of Moratuwa, Sri Lanka.	46
15. Figure 5 Create Groups nic Theses & Dissertations	47
16. Figure 5.7. Share document by Groupsk	
17. Figure 5.8: Share document by Individuals	_48
18. Figure 5.9: Initiate Meeting by Groups	49
19. Figure 5.10: Initiate Meeting by Individuals	49
20. Figure 5.11: Initiate Problem Reporting Form_	50
21. Figure 5.12: IT User Actions on the PRF	51
22. Figure 5.13: Setup Problem Indicators	52
23. Figure 6.1: Black Box Testing	_54
24. Figure 6.2: Test Cases – User Interface Testing	55
25. Figure 6.3: Test Cases – Functional Testing	60
26. Figure 6.4: Evaluate system Testing Metrix	63
27. Figure 7.1: Usability Evaluation feedback for Administrator	65
28. Figure 7.2: Usability Evaluation feedback for IT User	66
29. Figure 7.3: Usability Evaluation feedback for Team Leader	67
30. Figure 7.4: Usability Evaluation feedback for Normal User	67