Enterprise Resource Planning
for Haleem Ghar (Pvt.) Limited

Developed by:

Riaz Ali

(233021-056)

Supervised by:

Mr. Muhammad Asim Qureshi

BAHRIA UNIVERSITY ISLAMABAD
MFN
Acc. No. 2059

BACHELORS IN SOFTWARE ENGINEERING

The project report submitted as partial fulfilment of the requirements for the Degree of BSE

Department of Computer Sciences
BAHRIA UNIVERSITY, ISLAMABAD

2007

ABSTRACT

In modern era, it is becoming seemingly impossible to manage and run business using traditional techniques. Automation and computerization is the need of time. The same was felt by Haleem Ghar (Pvt.) Ltd. management and they decided to develop and implement a solution for their enterprise, to efficiently and successfully manage their business. The developed solution is the first step in achieving the goals set by Haleem Ghar management for efficiently managing exiting business and smooth and scalable growth in future.

TABLE OF CONTENTS

1. INTRODUCTION 2
1.1. Objective 2
1.2. Business Need 3
1.3. Product Perspectives 3
1.3.1. System Interface 3
1.3.2. User Interface 3
1.3.3. Memory Constraints 3
2. REQUIREMENTS ANALYSIS 5
2.1. System Breakdown 5
2.1.1. Module 1: Authentication 5
2.1.2. Module 2: Employee Management 5
2.1.3. Module 3: Payroll 7
2.1.4. Module 4: Sales 7
2.1.5. Module 5: Products 8
2.1.6. Module 6: Location Management 8
2.1.7. Module 7: User Management 8
2.1.8. Module 8: Report Generation 8
2.2. Deliverable 9
2.3. Application Architecture 10
2.3.1. Architecture 10
2.3.2. Tools/ Languages 11
2.3.3. Rationales of Tools/Languages 11
3. HIGH LEVEL DESIGN 20
3.1. Modular Diagram 20
3.1.1. Description: Modular Diagram 20
3.2. System Flow/ Process Diagram 23
3.2.1. Description: System Flow/ Process Diagram 24
3.3. Detailed Process Diagram 25
3.3.1. Module 1: Employee Management 25
3.3.2. Module 2: Task Management 29

3.3.3. Module 3: Payroll 31
3.3.4. Module 4: Sales 34
3.3.5. Module 5: Products 36
3.3.6. Module 6: Location Management 38
3.3.7. Module 7: User Management 40
3.3.8. Module 8: Report Generation 42
3.4. User Interaction Diagram 44
3.4.1. Description: User Interaction Diagram 45
4. DETAILED DESIGN 47
4.1. Assumptions/ Dependencies 47
4.1.1. Software/ Hardware Requirements 47
4.1.2. Operating System 47
4.2. System Architecture 48
4.2.1. Use Case Diagram 48
4.2.2. Use Cases 51
4.2.3. Entity-Relationship Diagram 73
4.2.4. Database Design 74
4.2.5. Sequence Diagrams 79
4.2.6. Class Diagrams 87
5. IMPLEMENTATION 89
5.1. Tools and Technologies 89
5.2. Software Components 89
5.3. Major Considerations 89
5.3.1. Major ERP Haleem Ghar (Pvt.) Ltd. Methods 90
6. TESTING 102
6.1. Testing the Software 102
6.2. Testing Techniques 102
6.2.1. Black Box Testing 102
6.2.2. White Box Testing 102
6.2.3. Path Testing 103
6.2.4. Regression Testing 103

6.2.5. Unit Testing 103
6.2.6. System Testing 103
6.2.7. Acceptance Testing 103
6.3. Deriving Test Cases 104
6.4. Test Cases 104
7. CONCLUSION 119
8. REFERENCES 121
.....
A. APPENDIX 122
A1. ABBREVIATIONS 122
A2. INSTALLATION GUIDE 123
A3. USER GUIDE 124