

TABLE OF CONTENTS

CHAPTER	TITLE	PAGE
	DECLARATION	ii
	DEDICATION	iii
	ACKNOWLEDGEMENT	iv
	ABSTRACT	v
	ABSTRAK	vi
	TABLE OF CONTENTS	vii
	LIST OF TABLES	xi
	LIST OF FIGURES	xii
	LIST OF ACRONYMS	xiv
	LIST OF APPENDICES	xv
1	INTRODUCTION	1
	1.1 Company Background	1
	1.2 Project Background	4
2	PROJECT OBJECTIVES / SCOPES	6
	2.1 Introduction	6
	2.2 Project Objectives	6
	2.3 Project Scopes	7
	2.4 Project Plan	8

3	LITERATURE STUDY	9
3.1	Introduction	9
3.2	Systems Development Life Cycle Overview	9
3.2.1	Rational Unified Process	11
3.3	System Requirements Analysis Overview	13
3.3.1	System Requirements Analysis Activities	14
3.3.1.1	Requirements Elicitation	15
3.3.1.2	Requirements Analysis	16
3.3.1.3	Requirements Specification	17
3.3.1.4	Requirements Validation	18
3.3.1.5	Requirements Managements	19
3.3.2	Classification of Requirements	20
3.3.2.1	Functional Requirements	20
3.3.2.2	Non Functional Requirements	21
3.3.3	System Requirements Analysis Modeling	21
3.3.3.1	Use Case Model	21
3.3.3.2	Sequence Diagram	27
3.3.3.3	Collaboration Diagram	29
3.3.3.4	State Transition Diagram	30
3.3.4	Requirements Traceability	32
3.4	Requirements Review Process	33
3.4.1	The Importance of Requirements Review	33
3.4.2	SRS Errors	34
3.4.3	SRS Characteristics	36
3.4.4	Recommended Review Techniques Can Integrate in Requirements Analysis Phase	38
3.4.5	Study On Related Existing Approach	41
3.4.6	Requirements Review for HeiTech Padu Berhad	43
3.4.7	An Approach In Integrate Review in Requirements Process	47

4	PROJECT METHODOLOGY	50
4.1	Introduction	50
4.2	Project Methodology	50
4.2.1	Phase 1: Project Initiation and Planning	52
4.2.2	Phase 2: Analysis	52
4.2.2.1	Literature Review	52
4.2.2.2	Analyze SBS System	53
4.2.2.3	Survey	53
4.2.3	Phase 3: Develop Documentation	54
4.2.4	Technique	54
4.2.4.1	Research And Reading	54
4.2.4.2	Object-Oriented Approach	55
4.2.4.3	UML Notation	56
4.2.5	Tool	57
4.3	SBS System Development Methodology	58
4.3.1	SBS Requirements Process	59
4.3.2	Standard and Guideline	60
5	PROJECT DISCUSSION	62
5.1	Introduction	62
5.2	Part One: SBS System	62
5.2.1	SBS System Architecture	63
5.2.2	External Interface Requirements	67
5.2.3	SBS System Use Case Diagram	68
5.2.3.1	User and Their Role	70
5.2.3.2	Sign In Use Case	70
5.2.3.3	Open Account Use Case	71
5.2.3.4	Make Cash Deposit/Payment Use Case	71
5.2.3.5	Withdraw Money Use Case	72
5.2.3.6	Inquire Balance Use Case	73

5.2.3.7	Maintain Passbook Use Case	73
5.2.3.8	Remit Money Use Case	74
5.2.3.9	Reverse Transaction Use Case	74
5.2.3.10	Require Override Use Case	75
5.2.3.11	Manage User Profile Use Case	75
5.2.3.12	Perform End Of Day Use Case	76
5.2.3.13	Stock Control Register Use Case	77
5.2.3.14	View Electronic Journal And Forex Rate Use Case	77
5.2.4	SBS Sequence Diagram	79
5.2.5	User Manual	81
5.3	Part Two: Requirements Review Iteration Method	82
5.3.1	Iteration 1: Scope	85
5.3.2	Iteration 2: High- Level	86
5.3.3	Iteration 3: Detailed	87
5.3.4	Iteration 4: Finalized	88
6	CONCLUSION	89
6.1	Conclusion And Recommendation	89
	REFERENCES	91
	Appendices A - B	94 - 96

LIST OF TABLES

TABLE NO.	TITLE	PAGE
3.1	Inspections versus Walkthroughs	40
3.2	Comparison Between other Approaches and HeiTech Padu Approach	45
4.1	The Software Required To Complete The Project	57
5.1	Transaction Subsystem Functions	64
5.2	Utilities Subsystem Functions	65

LIST OF FIGURES

FIGURE NO.	TITLE	PAGE
1.1	Applied Research and Development Department Structure	3
1.2	SBS System Components	5
3.1	Rational Unified Process Methodology	12
3.2	Coarse-Grain Activity Model Of The Requirements Engineering Process	14
3.3	Requirements Validation Process	18
3.4	Use Case Model Steps	22
3.5	Actors Relationships and Use Cases Relationships	26
3.6	Objects Types	28
3.7	Sequence Diagram Sample	29
3.8	Collaboration Diagram Sample	30
3.9	State Transition Diagram Sample	31
3.10	Review Process For HeiTech Padu	43
3.11	An Approach In Integrate Review in Requirements Process	47
4. 1	Project Methodology	51
4.2	Requirement Process for HeiTech Padu	59
5.1	SBS System Components	64
5.2	External Interface Requirements	67
5.3	Use Case Diagram for SBS System	69
5.4	Sign In Use Case Diagram	71
5.5	Open Account Use Case Diagram	71
5.6	Make Cash Deposit/Payment	72

5.7	Withdraw Money Use Case Diagram	72
5.8	Inquire Balance Use Case Diagram	73
5.9	Maintain Passbook Use Case Diagram	73
5.10	Remit Money Use Case Diagram	74
5.11	Reverse Transaction Use Case Diagram	75
5.12	Require Override Use Case Diagram	75
5.13	Manage User Profile Use Case Diagram	76
5.14	Perform End Of Day Use Case Diagram	76
5.15	Stock Control Register Use Case Diagram	77
5.16	View Electronic Journal And Forex Rate Use Case Diagram	78
5.17	Sequence Diagram for Require Override Use Case -Basic Flow	79
5.18	Sequence Diagram for Manage User Profile Use Case -Basic Flow	80
5.19	Sequence Diagram for Manage User Profile Use Case-Alternative Flow	80
5.20	Sequence Diagram for Stock Control Register Use Case-Basic Flow	81
5.21	Requirements Review Iteration Method	83

LIST OF ACRONYMS

AR&D	-	Applied Research and Development
CMMI	-	Capability Maturity Model Integration
DSS	-	Device Service Server
ICT	-	Information and Communications Technology
UML	-	Unified Modelling Language
OOA	-	Object Oriented Analysis
RUP	-	Rational Unified Process
RFID	-	Radio Frequency Identification
SBS	-	Share Banking Services
SRS	-	System Requirements Specification
SDLC	-	System Development Life Cycle

LIST OF APPENDICES

APPENDIX	TITLE	PAGE
A	Project Plan – IA Gantt Chart	93
B	System Requirements Specification for SBS Project	95