



TABLE OF CONTENT

APPROVAL PAGE	iii
STATEMENT	iv
DEDICATION PAGE.....	v
FOREWORD	vi
TABLE OF CONTENT	vii
LIST OF TABLES	x
LIST OF FIGURES	xi
ABSTRACT	xvi
CHAPTER I : INTRODUCTION.....	1
1.1 Background	1
1.2 Problem Formulation.....	3
1.3 Research Scope.....	3
1.4 Research Objective.....	4
1.5 Research Benefit.....	4
1.6 Research Method	4
1.7 Thesis Organization.....	6
CHAPTER II : LITERATURE REVIEW	7
CHAPTER III : THEORETICAL BASIC	13
3.1 Data and Big Data	13
3.1.1 Unstructured Data	14
3.2 MySQL.....	15
3.3 RAD (Rapid Application Development).....	15
3.4 Wavemaker.....	18
CHAPTER IV : ANALYSIS AND SYSTEM DESIGN	22
4.1 System Analysis	22
4.1.1 General Description	26
4.1.2 System Requirement Specification	28



4.2	Research Design	28
4.2.1	Data Gathering	28
4.2.2	Data Analysis	29
4.2.3	Data Selection	30
4.2.4	Data Clustering	31
4.2.5	Data Mapping	36
4.3	System Designing	37
4.3.1	Use Case Diagram Designing	37
4.3.2	Activity Diagram Designing	39
CHAPTER V : IMPLEMENTATION		41
5.1	System Specification	41
5.1.1	Software Specification	41
5.1.2	Hardware Specification	41
5.2	System Implementation	42
5.2.1	WaveMaker Installation	42
5.2.2	Data Analysis	44
5.2.2	Data Selection	53
5.2.3	Data Clustering	57
5.2.4	Data Mapping	63
5.2.5	Implementation in RAD (Rapid Application Development)	88
5.2.6	Displaying Chart in WaveMaker	98
5.2.7	Deployment Application of WaveMaker	100
CHAPTER VI : EXPERIMENT AND DISCUSSION		102
6.1	Accounts Status	102
6.2	Account Company Type	103
6.3	Company Type	104
6.4	Chart of the Total of Transaction in Company	106
6.5	Chart of the Total of Warehouse in Company	107
6.6	Chart Geographic Type	108
6.7	Chart of the Total of Geographic Area in Company	109
6.8	Chart of the Total of Account in Company	110



6.9	Chart of the Total of Warehouse in Company Account Data	111
6.10	Chart of the Total of Project In Company	112
6.11	Chart of the Total of Rack in Company	113
6.12	Chart of the Total of Geographic Start Date	115
6.13	Chart of the Total of Transaction Status.....	116
6.14	Chart of the Total of Object Map in Company.....	117
6.15	Survey of Chart Comprehension	118
CHAPTER VII : CONCLUSION AND FUTURE WORK.....		120
7.1	Conclusion.....	120
7.2	Future Work	121
BIBLIOGRAPHY		122