Universiti Teknologi MARA

Requirement Gathering Using Five Whys and Drill Downs Techniques for Development of Agent Property System for the Licensed Auctioneer Company

Nur Farahin Nadia Binti Yusni

Thesis submitted in fulfilment of the requirements for
Bachelor of Information Technology (Hons.)
Information Systems Engineering
Faculty of Computer and Mathematical Sciences

January 2017

STUDENT'S DECLARATION

I certify that this report and the project to which it refers is the product of my own work and that any idea or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.

NUR FARAHIN NADIA BINTI YUSNI 2013603952

JANUARY, 2017

ABSTRACT

The stakeholder for this project is Licensed Auctioneer Company that are located at Batu Pahat, Johor. Currently, they are using the manual system which they keep all the data in files and advertise their property through newspaper. The company are covering the auction around Johor. They are facing the problem of unmanageable data, uncertainty of the stakeholder relating to requirement and lastly the inefficient medium of advertising that required high cost. The solution for the unmanageable data problem is by developing the APS that can manage all the data for the auction process. The system is for the staff to manage the staff, lawyer, buyer, client and property and also for public to survey the auction property based on area and type of property. There are three objectives for this project which are to gather and analyze requirements using chosen techniques, design and develop the APS. The method used was waterfall model that have four phases which are knowledge acquisition, requirement analysis, system design and implementation phase. Each phase has their own activities and deliverable that helps in achieving their objectives and lastly completing the project. The project only focus on the auction property around Johor. The finding of this project is to apply the solution that are being retrieved by using those techniques to Agent Property System that can help both actors, staff and also public in performing their business. For public, the system are for them to do auction property survey only. Lastly, the system are recommend to provide the online auction for the public that having a time constraint in the future.

TABLE OF CONTENT

CONTI	ENTS PAGE
CHIDEDA	ISOR'S APPROVALii
	T'S DECLARATIONiii
	WLEDGEMENTiv
	CTv
	OF CONTENTvi
	FIGURESix
	TABLESxi
	R ONE: INTRODUCTION
1.1	Background of Study1
1.2	Problem Statement
1.3	Research Objectives4
1.4	Research Scope4
1.5	Research Limitation5
1.6	Research Significance
1.7	Expected Outcome
1.8	Research Outline
1.9	Summary
CHAPTE	R TWO: LITERATURE REVIEW8
2.1	Existing Scenario for Auctioning Process
2.2	Benefit of Computerized System9
2.3	Existing system related to research
2.3.1	System A: AuctionMart.my
2.3.2	2 System B: Hamilton Country Ohio Auction
2.3.3	System C: PennyAuction.com.my
2.3.4	Discussion
2.4	Requirement Gathering
2.4.1	Five Whys
2.4.2	2 Drill Down
2.4.3	3 Fishbone
2.4.4	4 Discussion

2.5	Methodology	22
2.5	.1 Waterfall Model	22
2.5	2 V-Model	28
2.5	.3 Spiral Model Design	32
2.5	.4 Discussion	34
2.6	Summary	35
CHAPT	ER THREE: METHODOLOGY	37
3.1	Waterfall Model	37
3.2	Knowledge Acquisition	39
3.3	Requirement Analysis Phase	39
3.3	.1 Gather Data from the Stakeholder	40
3.3	.2 Analyze Requirement	42
3.3	.3 Get the requirements validation from the stakeholder	42
3.3	.4 Document Requirements	43
3.4	System Design Phase	45
3.4	.1 Design Model	45
3.4	.2 Design the system interface	47
3.4	.3 Design the database	47
3.5	Implementation Phase	48
3.6	Hardware and software requirements	49
3.6	.1 Hardware Requirements	49
3.6	.2 Software Requirements	49
3.7	Summary	50
CHAPT	ER FOUR: RESULTS AND ANALYSIS	51
4.1	Knowledge Acquisition Phase	51
4.2	Gather data from the stakeholder	52
4.2	.1 Interview Session	52
4.2	2 Asking Whys	58
4.2	.3 Drilling Down	60
4.2	.4 Finding the solution	63
4.2	.5 Analyze Requirement	67
4.2	.6 Use Case Diagram	67
4.2	.7 Domain Class Diagram	69
4.2	8 Get the requirement validation from stakeholder	70
4.2	9 Document the requirement	72
43	Design Model	73