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REAL ESTATE DSS AGENTS SYSTEM

NOOR IZUANI FIRDAUS BINTI MOHAMAD NAZAM

This report is submitted in partial fulfillment of the requirements for the Bachelor of Computer Science (Software Development)

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
UNIVERSITI TEKNIKAL MALAYSIA MELAKA
2008

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DECLARATION

I hereby declare that this project report entitled

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is written by me and is my own effort and that no part has been plagiarized without citations.

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DEDICATION

To my beloved parents, Mr. Mohamad Nazam Bin Yeop and Mrs. Rokiah Bt Kamaruddin, for their seems less expression of love and fully support…

To my supervisor, Madam Siti Azirah Bt Asmai, for making it all worthwhile…

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First, I would like to thanks to Allah s.w.t, I am very pleased and grateful of being able to finish my *Projek Sarjana Muda (PSM)*. First and foremost, I would like to thank my beloved parents and my family for their support and motivation throughout my project.

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Thank you.

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ABSTRACT

The system developed known as Real Estate DSS Agents System which provided for Projek Sarjana Muda (PSM) is a web-based application that dealing with real estate development in searching a house. With the emergence of a Decision Support System (DSS) that helps buyers to select the desired house based on the suitability criteria and their personal requirement. The system would help buyers in choosing the most proper housing with a few clicks away. For the development tools, the system is developed using Appserv v2.5.1 Package which includes the phpMyAdmin 2.6.0-rc1 as a database server, Apache HTTP Server 2.0.59 as a web server and MySQL 4.0.20a-nt that running the localhost in the database server. This system also applied PHP Script as a programming language. In addition, Macromedia Dreamweaver 8 is used as a web design and development tools. For the hardware requirement, the system used a set of computer which includes Windows XP as operating system. Hopefully, the Real Estate DSS Agents System is capable to users in making a good decision for them to get a most perfectly searching.

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ABSTRAK

Sistem yang dibangunkan dikenali sebagai Real Estate DSS Agents System yang mana disediakan untuk Projek Sarjana Muda (PSM) adalah aplikasi berasaskan web yang berurusan dengan pembangunan hartanah dalam menyediakan pencarian rumah. Dengan kemunculan 'Decision Support System (DSS)' yang membantu pembeli untuk memilih rumah yang diingini berdasarkan kriteria yang bersesuaian dan keperluan peribadi mereka. Bagi pembangunan peralatan, sistem ini dibangunkan menggunakan Pakej Appserv v2.5.1 yang mengandungi phpMyAdmin 2.6.0-rc1 sebagai server pangkalan data, Apache HTTP Server 2.0.59 sebagai pelayan web dan MySQL 4.0.20a-nt yang berfungsi menjalankan hos tempatan di dalam server pangkalan data. Sistem ini juga mengaplikasikan Skrip PHP sebagai bahasa pengaturcaraan. Sebagai tambahan, Macromedia Dreamweaver 8 digunakan bagi merekacipta web dan sebagai peralatan pembangunan. Bagi keperluan perkakasan, sistem ini menggunakan satu set komputer yang mana mengandungi Windows XP sebagai sistem operasi. Diharapkan, Real Estate DSS Agents System ini akan dapat membantu pengguna dalam memilih keputusan yang baik bagi mereka untuk mendapatkan pencarian yang paling sempurna.

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LIST OF ABBREVIATION

NO	ABBREVIATION	NAME
1	CSCI	Computer Software Configuration Item
2	CSU	Computer Software Unit
3	DSS	Decision Support System
4	ERD	Entity Relationship Diagram
5	GUI	Graphical User Interface
6	HTML	Hyper Text Markup Language
7	HTTP	Hyper Text Transfer Protocol
8	NFR	Non-functional Requirement
9	OOAD	Object-Oriented Analysis and Design
10	PSM	Projek Sarjana Muda
11	RAM	Random Access Memory
12	REDA	Real Estate DSS Agents
13	RUP	Rational Unified Process
14	UML	Unified Modeling Language
15	UTeM	Universiti Teknikal Malaysia Melaka

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CHAPTER I

INTRODUCTION

1.1 Project Background

Real estate business is one of the oldest businesses in the business world which is also considered to be associated with the toughest business environment to invest for investment because of its volatile behavior. 21st century is the century of advance technology and utilizing its power in every possible business environment.

Apparently, developers fully rely on short-term advertising through mass media like radio and newspaper in promoting their products. It is an unviable marketing strategy as it involves a lot of cost, time and effort. With Real Estate DSS Agents System, user can capitalize on the growing importance of Internet as an alternative advertising media that will be available at anytime and anywhere to reach wider target market.

The proposed system, Real Estate DSS Agents System is a business application using web based dealing with real estate development in buying a house. The system is developed for three main parties, namely property vendor/seller, administrator and potential buyers.

Even the popularity of the electronic commerce (e-commerce) is become wider and lots of developers are scrambling to establish their presence on the web, most of

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the websites do not have online reservation system. Consequently, the intended buyers have to visit the sales office to confirm on sales or place a booking. Problem always arises when they are busy-professional or working aboard. Real Estate DSS Agents System allows these potential buyers to figure out into the entire business details and buying their asset (house) or do registration with just a few clicks via internet.

By incorporating the Decision Support System (DSS), it will make a different for this industry in maintaining and growing competitive advantage. A DSS is an interactive computer-based system that helps decision makers utilizes data and models to solve complex and unstructured problems (Alter, S. L. (1980). This system will describes a Web-based DSS that aids decision makers in choosing to find a house for their own and find the appropriate house with their accurate budget. This Real Estate DSS Agents System will be able to produce the best housing solution and the system will satisfy the basic needs of the customer of real estate business.

1.2 Problem Statements

Problems are identified and analyzed to collect the information about all the requirement of the current and new system. For replacing the manual and current system, the main problem statements that occurred must be recognized. Some of the problem that has been identified involves time constraint, cost and effort, and also unsuitable information.

Under the traditional (manual) system, the purchasing agent offers a package of services by showing homes, providing information about home values and neighbourhoods, matching buyers and sellers, negotiating and signing the contract, arranging for inspections, assisting with closings, and so on. They have to do step by step. It takes a lot of time. Most of the websites do not have online reservation system. Consequently, the intended buyers have to visit the sales office to confirm on sales or place a booking.

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Developers fully rely on short-term advertising through mass media like radio and newspaper in promoting their products. It is an unviable marketing strategy as it involves a lot of cost, time and effort. In this uncertain market, the real estate community faces the challenge of reaching more qualified prospects in a cost effective matter.

In addition, a buyer need assistance from suitable information in making decision to buy a new house. With minimum information, the buyer might get a house that not suited to their choice based on the requirement and their satisfaction.

1.3 Objectives

The Real Estate DSS Agents System is practically defines the problems that have been facing by the manual and current system. With this new system, the objectives for developing this system are:

i. Make the property information available anytime and anywhere. With the emergence of a Decision Support System (DSS) that helps buyers to select the desired house based on the suitability criteria and their personal requirement. The system would help buyers in choosing the most proper housing with a few clicks away.

ii. Buyers are allowed to check the house status and choice of their property via the system. The system will able to give information about house status accordingly.

iii. Offering an assistant to the buyers in choosing preferred property. This system would act as a decision support to the potential buyers by performing statistical analysis to the current buying trend and to build a DSS system which able to meet user acceptance and requirements.

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1.4 Project Scope

The scopes of this project are the modules that will be developed and the target user.

1.4.1 Modules

This system consists of five main modules that will be as a complete system which would be related to each other. The modules of the system are:

i. Login (User Authentication)

The user of the system must login to the system to determine the type of the user whether he or she is an administrator or potential buyer or property owner/seller. Administrator can fully access the system and the common user can access the system in the range that has been granted by the administrator. For the registered user, their data will be keeping for the references and for knowing their status in buying the house that they wanted.

ii. User Registration

This module provides the registration for new user such as potential buyer and owner/seller. User need to register before they can start make a registration for displaying their property information through the system (for owner/seller).

iii. Quick Search

User (buyers) can search type of house (building) they want, the purpose either sale or rental, and where it place. It also provides information (description) about the building that they have chosen.

iv. Full Search

User (buyers) can make searching by type of house (building) they want, the purpose either sale or rental, location, furnishing type, number of room

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available, and make a price range from their minimum to the maximum budget. It also provides information (description) about the building that they have chosen.

v. **Owner/Seller Search**

This module will help potential buyers for getting a useful help from the registered owner/seller to get any information and solve any problem about property by face to face with the owner/seller. With this module, a buyer can know the details about the owner/seller before they decide to buy the property provide by the owner/seller.

vi. **Property Registration**

This module provides the registration for new property that will be display through the system. Owner/seller can make a registration for their property by registering all information about their property before the information can be display into the system.

1.4.2 Target User

The target users are:

i. Administrator
ii. Property Owner/Seller
iii. Potential Buyers

1.5 Project Significance

Basically for any system, it is important that it can fulfill the needs of its requirements. Once the proposed system is complete, the system expected to give benefits to the user and meets their satisfaction.

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For the Real Estate DSS Agents System, it provides the significance to the user which it make user understand the capability of obtaining information through online system with quick and easy way.

Besides that, it also important to the property owner/seller whom they can get buyers immediately without wasting time to search and find the buyer by themselves. Using the system, property owner/seller can gather quick and good information without waiting for a long confirmation and time which the user will find and contact the owner/seller by themselves through email or phone call.

In addition, this system has importance to the potential buyer which it becomes as a medium to make a deal with the property owner/seller. The buyers can use this system as decision maker in helping them to get a right choice and choose a new house with their fitting budget.

1.6 Expected Output

This Real Estate DSS Agents System is not only a simple web solution for a real estate business but also addresses the future requirements of the next generation that finds the most suitable and safest place on earth. It will be able to produce the best housing solution for tomorrow's world; nevertheless, the system will satisfy the basic needs of the customer by implementing the information of real estate business which will not be changed even in future situation or growth of population.

The system performs the tedious, time-consuming, and repetitive tasks of retrieving and filtering information, and delivering it back to the users which consists of property owner/seller and potential buyer. Besides that, the results of search of a specific real estate are submitted in detail, which may include direct links to a Web page or email of a property owner/seller.

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In addition, the buyers also can make their searching and retrieve information with more accurately. By submission such a display, the multiple criteria comparisons can become more effectively supported.

1.7 Conclusion

This Real Estate DSS Agents System will help the potential buyers in managing their requirement for buying a new house and it also provide a rental section that give a tenant a chance to choose proper house with their fitting budget. For the property owner/seller, they can provide information about the house that they want to sell and use this system as a medium to attract the potential buyer to buy the house that they have provided.

This system have a modules which is covering the entire task where manual and current system do but in more effective and conducive way. It will include four main modules which are Login (User Authentication), Quick Search, Full Search, Owner/Seller Search and Property Registration.

For the next chapter which is Chapter II will be continue with Literature Review and Project Methodology which is covering the project review on the domain and existing system. It also will identify the comparison of existing system. For the methodology, it will cover the project development methodology and it will describe hardware, software and other requirement that will be use. This chapter also provides the project schedule and milestones for the complete phase.

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