Client-Property Matchmaking System (C-PROMS) of Chancellor Hall (CH) and Undercroft of Universiti Teknologi PETRONAS (UTP)

By

NUR IZZAH BT MOHAMMAD

A project dissertation submitted to the
Information System Programme Universiti Teknologi PETRONAS
In partial fulfillment of the requirements for the
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(BUSINESS INFORMATION SYSTEMS)

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Perak Darul Ridzuan

CERTIFICATION OF APPROVAL

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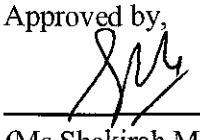
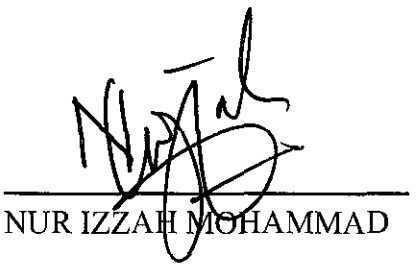


(Ms Shakirah Mohd Taib)

UNIVERSITI TEKNOLOGI PETRONAS
TRONOH, PERAK

CERTIFICATION OF ORIGINALITY

This is to certify that I am responsible for the work submitted in this project, that the originality of the work is my own except as specified in the references and acknowledgements, and that the original work continued herein have not been undertaken or done by unspecified sources or person.



NUR IZZAH MOHAMMAD

ABSTRACT

The Final Year Project proposed is Client-Property Matchmaking System. This project is focusing on the matchmaking function between the client and property. In the existing system, usually they provide the user with storing and managing the data for analysis. Therefore, for this project the system has been added the additional function to match the client with the possible property. This project will divide into two basic parts, which are storing and managing and matchmaking function. The filtering function will help the real estate and property agent to come out with the list of property in order to recommend it to their clients. They can choose to match with the single attribute or multiple attributes. Basically this function will reduce the time used for searching the property to fulfill the needs and requirements of the client. It is because the system will only take consideration of status available of the properties. As a result, hope that this system will help the agents to run their business more effective and efficient.

ACKNOWLEDGEMENT

The author would like to take this opportunity to express appreciation to those who has assisted in making this project a success.

A special thank you to the Final Year Project Committee for the effort to coordinate and plan in making sure the Final Year Project activities can be done smoothly according to the plans' scheduled.

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CHAPTER 1

INTRODCUTION

1.1. Background Study

Over the past few decades Malaysia has been the one of the successful developing countries. Today, a lot of places in Malaysian have been developed, just look at the buildings, it is proved how far Malaysia had succeed. Its not only contributes by locals but also from outsiders. Malaysia able to attract many foreign investors to do Foreign Direct Investment (FDI) because of its resources and infrastructures through many sectors like education, industrial and that does include real estate and properties [11]. As additional of the race and religion diversity, it makes the foreign investor see Malaysia as the 'getaway' to ASEAN market [11].

To date, the technology does play a vital role in everyday humans' life. It helps to make humans' life much easier by innovating in various types of products as well as multifunction systems. These innovations will help the business people to save energy, time and space. Furthermore, a system can help the business to operate not only fast but also with effectively.

On the other hand, a system is offering a business of unlimited energy of long working hours. In the real estate and properties industry, the system help to capture the necessary data and all the evidence needed for the particular transaction to happen.

1.2. Problem Statement

In this kind of business, there are lots of information that needs to be stored and kept not only for the business purposes but also for future reason in order to analyze them in providing a better service and recommending the best options to the client based on their preferences and likings.

With the massive and lots of information regarding the client, real estate and properties and agreements, it can bring to a big headache and consume a lot of time to manage them. Especially for the private sector, in order to cut cost they will choose to manage all these information by themselves. Among the information that they need to store are about the client data, properties data and contract agreement data.

Based on the research done, there are few problems that have been identified in the process of managing the data and information. Those problems are as below:

i. Limited numbers of manpower in handling the business especially for the private sector
ii. Most of the existing system will stored the data separately between clients and properties and it is up to the agent to decide which properties to recommend to their client.
iii. Lack of the tools or system that can recognize the potential properties to recommend it for certain clients.

In [1], an agent needs to use different methods in order to attract the clients. By giving the best advice and recommendation, it can help the agent to increase their client's confident level to use their service.

1.3. Project Objectives

The main objective if this project is to develop a system named **C-ProMS** (**C**ustomer-**Pro**perties **M**atchmaking **S**ystem) system to help the real estate and property agent in making decision. Meanwhile, the other objectives of this project are:

i. To gather all the data regarding clients and properties as well as the agreement once the business transaction happened.
ii. To provide better solution of profiling, storing and managing the information.
iii. To build a platform that can help the agent to decide which properties to recommend to the potential buyers.
iv. To increase the competitive advantage between the private organizations.

1.4. Project Scopes

This system is built and meant for the real estate and property agents especially in private sector. The scopes of this project are as the following:

i. The main end-user for this system is agent of real estate and property and anyone that working in that particular industry.
ii. The best procedures to follow in achieving the successful business transactions.
iii. A match making function between potential customer and available properties.
iv. A user must sign up as a member in order to access to look for certain information and use the match making function.

1.5. Expected Project Outcomes

The outcomes can be divided into few modules. There are Client Module, Real Estate and Properties Module, Agent Module, Match making Module, Login Module and Search Module. It can also be shown as in the figure attached.

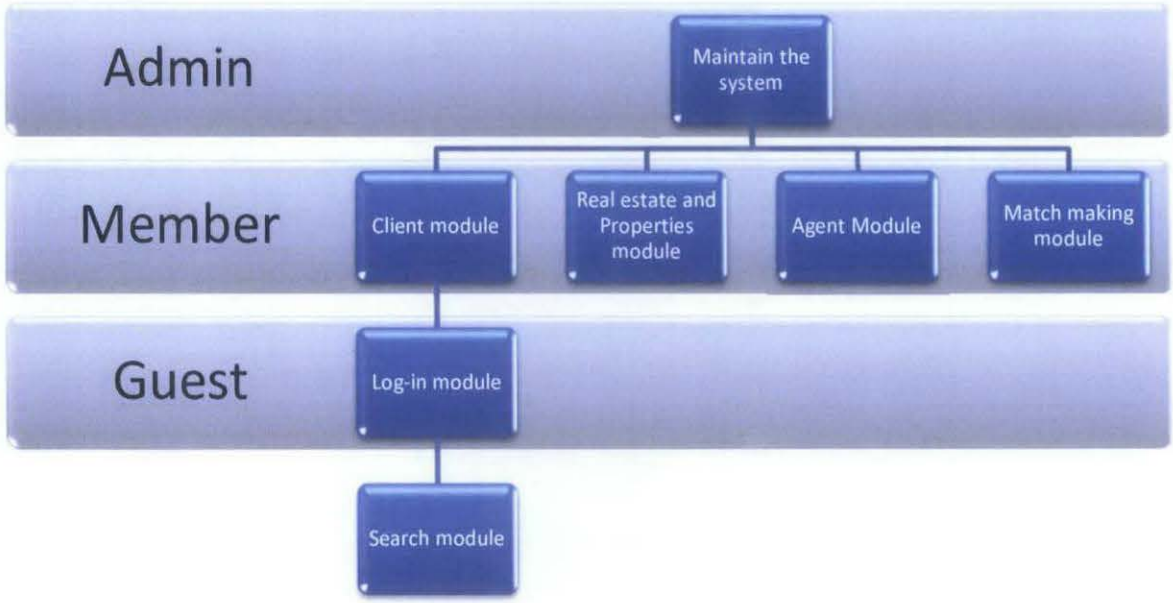

Figure 1.1: Expected Project Outcomes

1.6. Project Timeline

The timeline for this particular project is between January 2011 until September 2011. The project duration is illustrated by the Gantt chart in Figure 1.2 below.

					Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Phase	No	Task Name	Duration	Start Date	End Date														
I	1	Search Related Articles	28 days	24-Jan	3-Jun														
	2	Gather Requirements	28 days	2-Jul	3-Jun														
	3	Prepare Extended Proposal:																	
	4	Chapter 1: Introduction	21 days	21-Feb	20-Mar														
	5	Chapter 2: Literature Review	21 days	21-Feb	20-Mar														
	6	Chapter 3: Methodology	21 days	21-Feb	20-Mar														
	7	Proposal Defense (Presentation)	14 days	21-Mar	3-Apr														
	8	Progress Evaluation (Accepted/Rejected)	14 days	21-Mar	3-Apr														
	9	Interim Report (Improvise Report)	14 days	4-Apr															
	10	Submitting Final Report(Technical Report)	7 days	18-Apr															
					Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14
II			Duration	Start Date	End Date														
	1	Analysis & Preliminary Design	28 days	23-May	19-Jun														
	2	Prepare Report on Tools Selection	21 days	5-Jun	26-Jun														
	3	Detailed Design/Coding	28 days	27-Jun	24-Jul														
	4	System Implementation & Testing	21 days	18-Jul	7-Aug														
	5	System Deployment	14 days	1-Aug	14-Aug														
	6	Prepare Project Report & Presentation	14 days	15-Aug	28-Aug														

Figure 1.2: Project Timeline Gantt chart

1.7. Conclusion

As a conclusion, this chapter has conclude the 1) background; 2) problem statement; 3) project objective; 4)project scope; 5) expected project outcomes; and 6) project timeline. The main objective of building this C-ProMS system is to come out with the match making system that can help the real estate and property agent to become more competitive advantage among the businesses in the future.

CHAPTER 2

LITERATURE REVIEW

2.1. Introduction

According to [1] and [5] an agent is licensed to represent others. Meanwhile, real estate and properties agent is briefly define as someone who has the ability and qualification to help the clients to buy or sell the clients' properties. The real estate business not only about the buying and selling but its' also includes the process of properties ownership, possession and transfer transaction, [3].

As quote;

An agent has greater liability when buying and selling property for themselves than the general public has. Not only can a mistake cost the license, but also may b sued and cost the considerable amount of money, time and headaches. [2]

On the other hand, as stated in [6], add on from that, a contract is legally binding when there are four elements involved and there are;

- the intention to create legal agreement
- the offer
- the acceptance
- the considerations

This also means that they will need to manage lots of data and information in order to prepare and sign those contracts. Information technology does help the business in making sure that there are fast and complete business transactions to happen. So, to date, there are many applications or systems are made to support the real estate and property industry.

2.2. Real Estate and Property System

These real estate and property system are mainly focusing on profiling, managing and storing the data and information. As discussed in previous section in chapter 1, there are few parties that need their data to be captured.

Among the information are:

- Clients information; personal details, properties preference and budget
- Properties; type, status availability, place, characteristics, cost, and time period
- Contract agreements; details, rules and regulations

A study under [4] shows the importance of CRE (Corporate Real Estate) asset management. Maintaining a separate CRE so that it can provide more opportunities like:

- Exploited to further overall corporate goals and strategy
- Coordinated with other business functions
- Efficiently implemented to maximize shareholder wealth

As the system goes, it is a combination of IT and MIS (Management Information System). Under this MIS topic, its teach people on how to manage the data and information. In addition to that, MIS teach people on how to relate between the individual data and come out with the useable or important type of information.

2.3. Studies on the Existing Real Estate and Property System

As the research being done, resulted that there are many of existing systems that can be found in the market. And, these systems have few extra things that being added to the original or basic use of the system.

Among the systems that available are;

2.3.1. Real Estate Management Information System (RMIS)

RMIS is a system that focus more on the capturing the data on day to-day operation and converts it into useful report for the management team [7]. It is to make sure that the day-to-day transaction can be done smoothly and effectively.

And, RMIS is focusing more real estate market like residential housing, commercial properties and senior housing [7]. On the other hand, it is also keep track on the rental payment based on the terms of their rental agreement. The system will provide together with the receipts and billing statements.

2.3.2. Real Estate Listing Management System (RELMS)

This system is full featured with listing management tool. It is allowed the owner to add, update or delete the categories and attributes [8]. On the other hand, they also can upload the catalog photos that can be associated with specific listing.

2.3.3. GIS (Geographic Information System) for Real Estate

Another step forward in this business is that, there are some companies that use the GIS. GIS is meant to help the business, for making a better decision base on geographical characteristics, [10]. Its not only finding the location but it is the best location where the data around locations have been analyzed – demographics, aerial photographs, traffic counts, shopping center usage, merchandise potential data, and competitive influences.

2.3.4. Integrated Real Estate Management System (iREMS)

It is used as a support to collect data and information [9]. In addition to that, it let the staff to perform servicing functions and implement enforcement where needed. This system is only to be used by the contract administrators.

2.3.5. Real Estate Information System (REALIS)

It is about the system that its main function is to provide timely real estate information to the public, and building and real estate practitioner [12]. So that, they can use the information for the fast decision making process.

2.4. Comparison on the Existing System of Real Estate and Property System

From all the existing systems that being discussed, most of the systems are mainly focusing on how to manage and captured the data that they are dialing in either daily basis or contract basis information. Just a few of it that has added value like geographical analyze and billing maker. But, so far there is no particular system that has a functionality of matchmaking between customer and the properties.

2.5. Proposed the Customer-Property Matchmaking System (C-ProMS)

From the discussion above, so, here the author would like to propose a system that can help the agent not only to manage and store the information but also can help on decision making on who to recommend what properties. This system is called, Customer-Property Matchmaking System (C-ProMS).

As stated, [1], one of the real estate and properties agent's role is to advice his/her clients on what specific property to buy and type loan to use. Basically the system will have the functions of:

- Manage the data and information
- Keep track on the data and information that need to be captured in one business transaction to happen
- To match the potential buyer with the available properties
- Able to print out the bills and receipts

The system will use the questionnaire method as one of the way to get the desired result. This is for manual match click, if there is some attributes that the user want to change.

2.6. Conclusion

To be a competitive real estate and properties agent nowadays, will not only merely handle the selling and buying transaction, but also need to manage the data and information provided and to analyze them, so that it can help the business to improve the service. As a result, a match making system can help the agent to give a fast and effective advice to their customer in order to buy or sell the real estate or properties.

CHAPTER 3

METHODOLOGY

3.1. Introduction

We can say that almost all things have a complete process from start to end. So, this goes the same with creating software based on the problem occurs. So in this research, the method that will be used to build the system is the System Development Life Cycle (SDLC).

3.2. System Methodology

3.2.1. What is SDLC?

Used to develop software, the author will need to deals with many phases from planning until deploying the system. So, SDLC will be used for this particular reason. There are various ways in SDLC that can be used in order to develop a system like the General Model, Spiral Model and Incremental Model.

In this particular system method, the author will use the Waterfall model as well as the new SDLC-2010 proposed method.

3.2.2. Waterfall Model

The waterfall model is a sequential software development process, [12]. It is a steady flowing progress from one stage to another stage downward. There will be 6 stages for this model, they are:

- Project Planning
- Requirements Design
- Design
- Development

- Integration and Testing
- Installation and Acceptance

The image below shows the 6 stages that fall under the waterfall method:

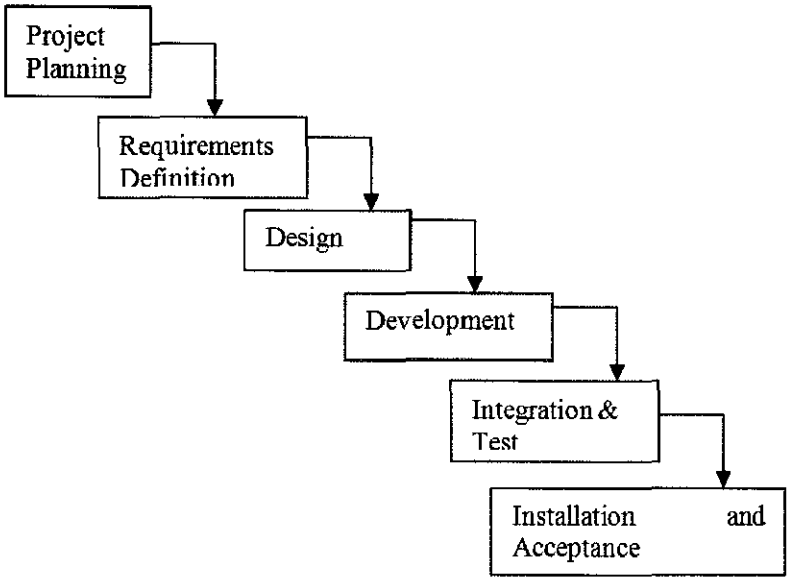

Figure 3.1: SDLC - Waterfall Model

This method is highly structured from the physical environment which after-the-fact changes will be really costly [12]. On the other hand it is required the completeness of previous stage before it can proceed to another stage and this goes on until the end.

3.2.2.1. Iterative Development Model

Describe by Winston W.Royce [13], he develop the development flows of waterfall-like phases which is a better alternative for the system development. As the common feature of waterfall model is tending to fail (18% cancelled, 53% late, over budget or descoped[2]) within the development phase.

The image below shows the subsequently stages that fall under this development model which also knows as Waterfall method:

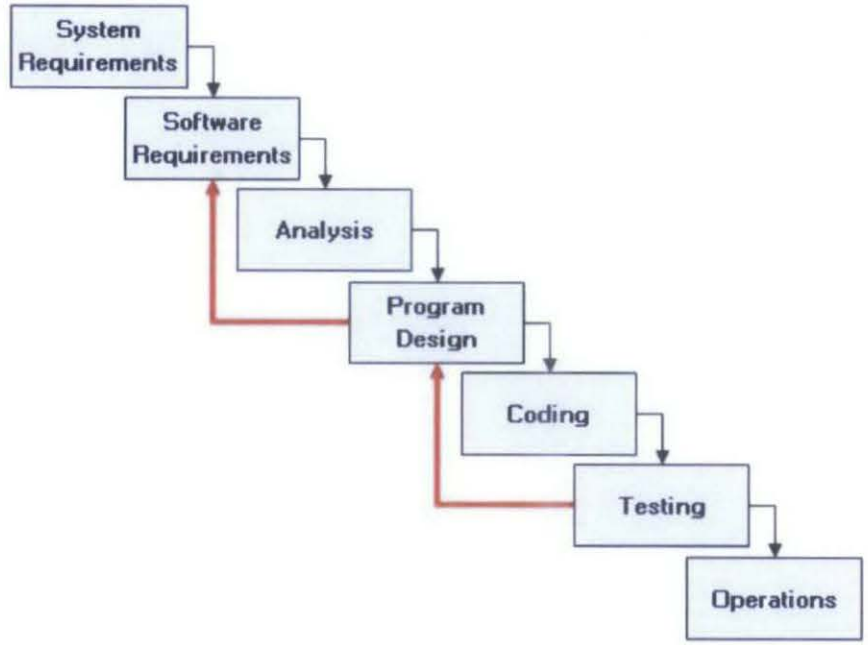

Figure 3.2: Iterative Development Model - Waterfall Model

Royce stated that this approach is with the assumption that the details of the details of the requirements can be expressed by the customer which are specified and not be changed during development. He also highlights that in testing phase, if the system deliverable does not meet the client's expectation the system need to redesign based on the recommendations and errors from previous trial.

There are several benefits that can be gain over the original Waterfall model, and, they are:

- Manageable of complexity
- Encouraged prototyping and feedback
- Can deal with changes and provokes earlier identification of change
- Have better progress tracking and predictability

3.2.3. New features in SDLC Model-2010

Here is the study that had been done under [12], among the characteristics of this model are:

- To propose the concept of user-developer interaction
- Define clearly on who need to do what job in SDLC
- To ensure that the good quality attributes of the software

The image below shows the functions and attributes that had been added into SDLC:

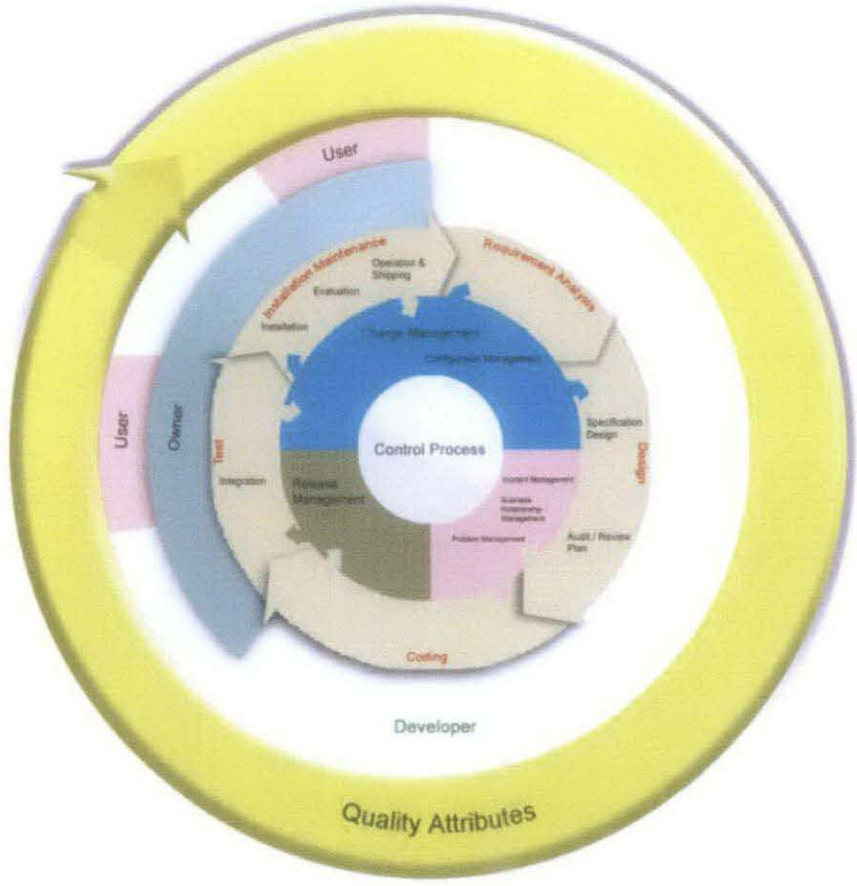

Figure 3.3: SDLC-2010 New Model

3.3. Research Methodology

3.3.1. To collect Research Tools and Information

In this research, the author will find information and seek advice from:

- Supervisor
- Journal and article

3.3.2. To collect Data and Information

- Form basis - This is a manually filled by the customer or secretary before any transaction made
- Interview the user – on system specification
- Existing database/system (if any) – if the company already use any system that required database before.

3.4. To Build the system

3.4.1. Hardware

To support the system few machines are needed to transfer the digital documents into the hard copy documents and vice versa.

- Printer
- Scanner
- Fax machine

3.4.2. Software

The project will be build using;

- Visual Basic

  Programming software build by Microsoft in order to develop a window – based application. It can create custom interface or front-end for database. It is a tool to not just enhance but also display the data.

- Microsoft Access

  This Microsoft Access will be working as a database for the system in order to save and manage the data. It has the ability to enter, edit and custom the data.

- Microsoft Excel

  This program will be use mainly for the calculation purposes.

3.4.3. Operating System

- Windows XP

  Just as a standard requirement to use the system in the desktop. Since Visual Basic was develop under windows.

CHAPTER 4

RESULT AND DISCUSSION

4.1. Introduction

In this chapter, there will be more details on the result's discussion. These results are collected from the end user as well as the client in order to come out with the system that fulfilling the client's requirements and working effectively.

This topic is important through out the project as all the collected information will be analyzed and used to decide on how the system will actually working from beginning until the end. And, to make sure that, the system is less complex enough for user to understand on how to use it and complete with all the required functions.

4.2. Interview script

This interview was held to gather all the information regarding the data that will be captured, what are the system requirements and the desired output solutions.

The System Functions

"What you want the system to do?"

- The system should able to restore data separately for customers and properties. So, that, it will be easier to retrieve later to check the status of both. And, we can set the status for each client or properties. Foe example for client either they still looking or they found their desired properties and for properties it still available or sold.
- The client can be divided into VIP and common. So that easier to match with expensive and higher quality of properties. Meanwhile for properties it will divide into several types of properties like, houses, apartments, shops and etc.

"What is the main feature in this system you want to highlight?"

- It will be good if the system can help me out to come out with the available properties to give recommendation to clients. Other than that, if possible make it able to produce template report when a contract signed. Lastly, can print out the contract, receipt and report.

Data Input

"What types of input you will use for the system?"

- We will need to deal with various kind of information like;
    - Customer/client – personal details, income, properties preference, budget, loans duration and relative
    - Properties – types, cost, location, description and benefits
    - Contract's content – terms and condition, way of payment, duration, between who and any others.

Result

"What your expected result/solution you wish to use?"

- At least the system can update the customer and properties status on real time basis. It will be better if it can keep track on the each business process on what need to monitor like contract's content and agreements from involved parties. On the other hand, the system also should be able to print out receipt and report if necessary.

User

"Who will be the user? Just the staff or include clients?"

- Only for the staff and the agents. There will have slightly different types of work to do. Like for example the matchmaking function can only be use the registered agent.

Additional functions

- As an additional, the system can also store an information regarding the company and how its work. So that, whenever there are new comers join the company, they can refer to those documents to know more about the company other than a tutor from earlier permanent staff.

4.3. Result & Discussion

4.3.1. User Requirements

From the interview above, so here is the summary of the 3 main client's requirements functions upon the system.

- Separate Data Collection Function
  - ✓ The data will be collected and stored independently between customer and properties at the beginning. There is no relation yet between both groups
- Customer/Properties Status Function
  - ✓ Under this function there will be a status button where it can be set as taken/available for properties and in-progress/complete for the transaction and still looking/found for customer.
- Customer-Properties Matchmaking Function
  - ✓ This is the function that relates both customer and properties group. Where the system will help to give options to the customer on the available properties and fulfilled their requirements at the same time.

Furthermore, the author also includes some of the sub-functions that can be building together within this system as an add-on function:

- Keep-Track Business Transaction Function
  - ✓ This function is working in order to make sure that all the data will be captured during the transaction and it can be completed with zero problems.
- Report/Summary Function
  - ✓ This is like a template for the user (property agent) to fill in as the summary once one business transaction had completed. It is easier for them to make it as future references.
- Print Out Bill & Receipt Function
- Store some information

4.3.2. Use Case Diagram

Figure 4 shows a use case diagram, that illustrates the functionalities of the systems and its actors.

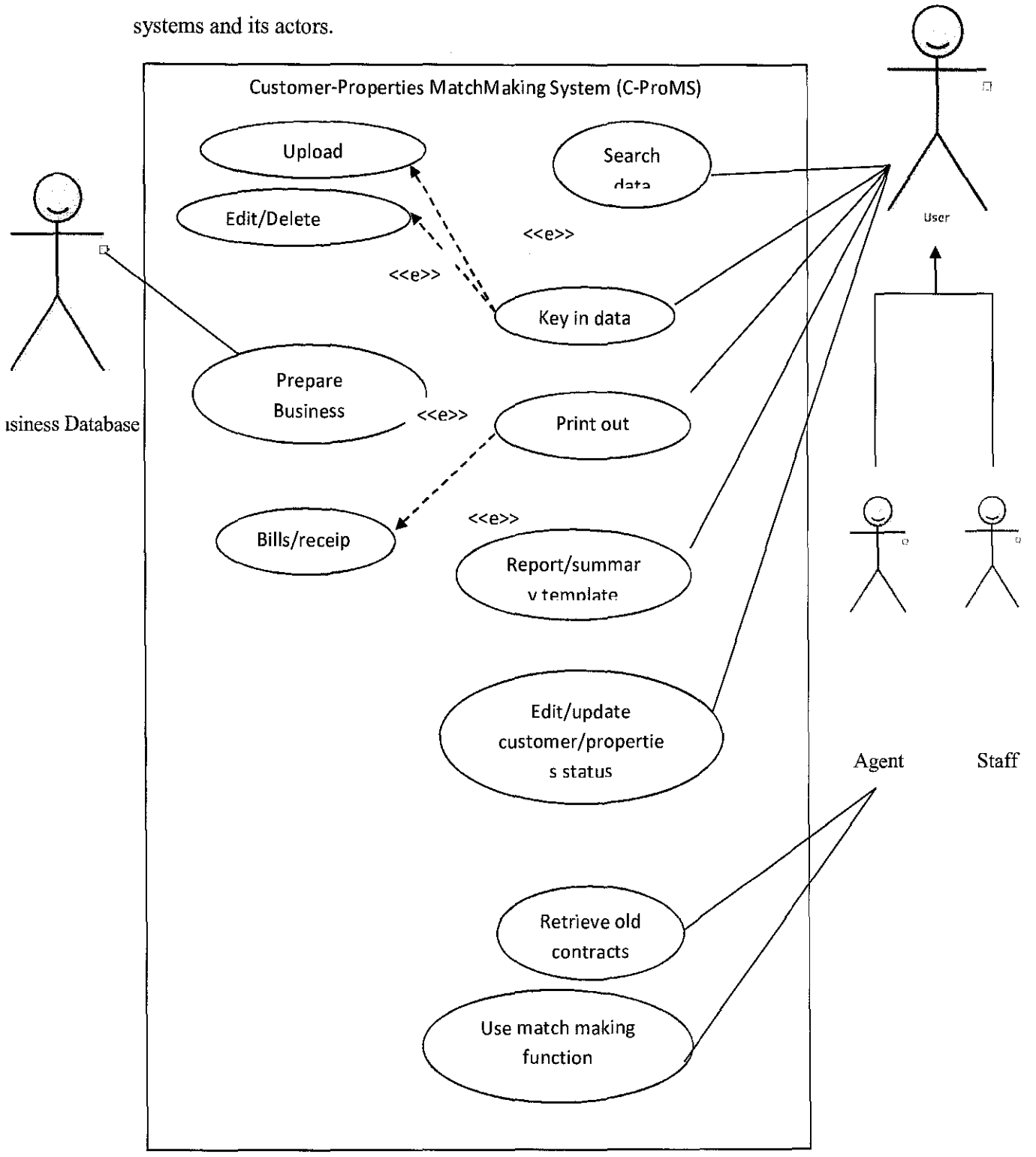

Figure 4.1: Use Case Diagram

4.3.3. Flow Chart of Activity

A flow chart is a representation of a process by symbols. All symbols are connected to each other by following the steps.

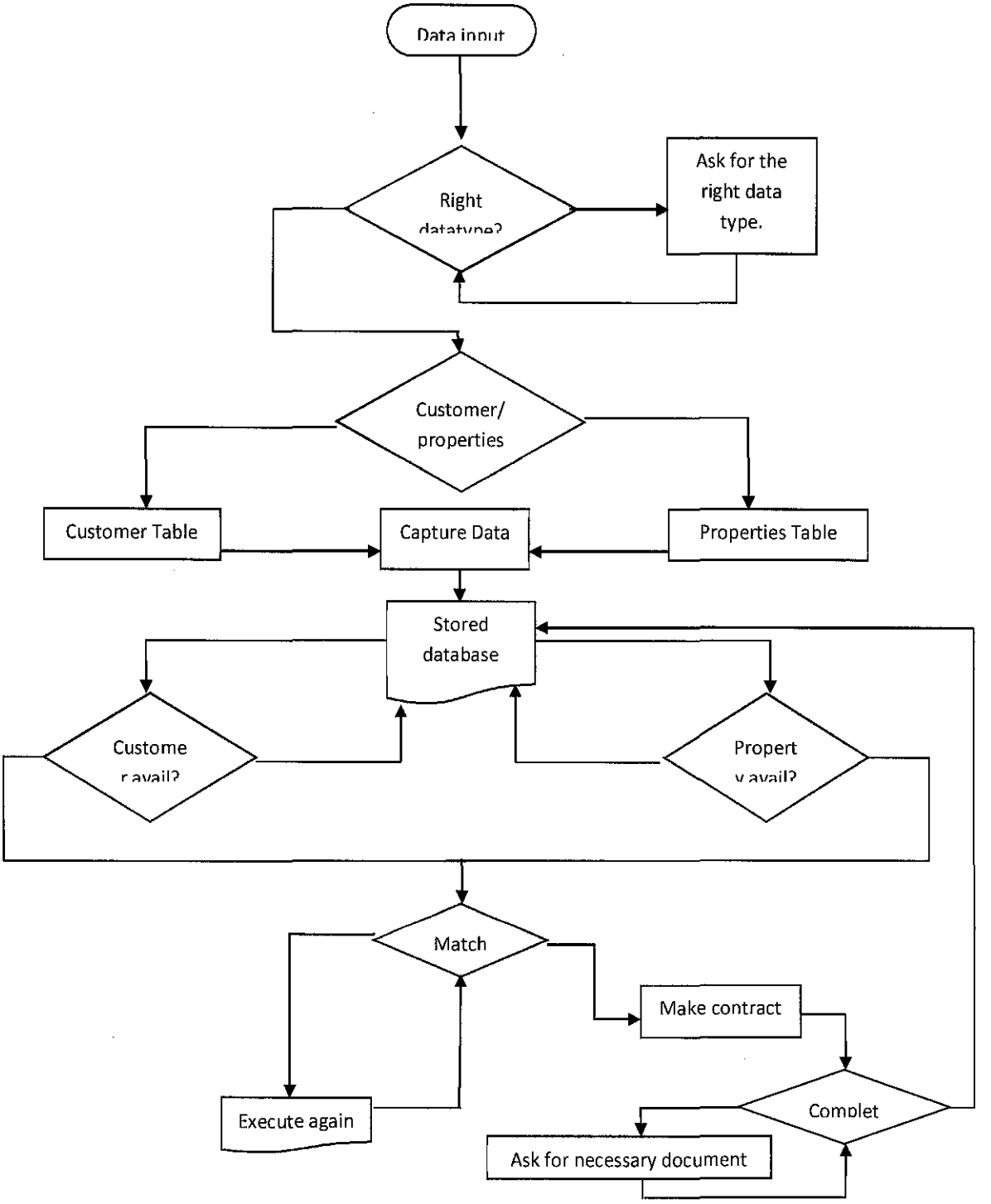

Figure 4.2: Flow Chart

4.3.4. Data Collection

For the data collection, the client originally kept all the data manually in a file that recorded mainly about the landlord/vendor and purchaser/tenant. The information will be kept only after the transaction happen. It is for them to keep track on the money/cash flow over the company for monthly basis.

At the appendix section, shows that the copy of how the data is actually kept manually. And that does include the template of the transaction and few other examples of the contracts.

Based on the data given, the data can be divided into three (3) main tables with basic attributes as shown in Table 4.1. An additional table needs to be created for only matchmaking purposes.

Table 4: Table and Attributes in database

Table	**Table Name**	**Attributes**
1	Client	ClientID Name Address Phone Num I/c Types
2	Properties	Property ID Name Type Size Rooms Status Address
3	Contract	Date Type Buyer Seller Period/Duration Payment methods
4 (add table)	Matchmaking	Matchmaking ID Property ID Client ID Address

4.3.5. Entity Relationship Diagram (ERD)

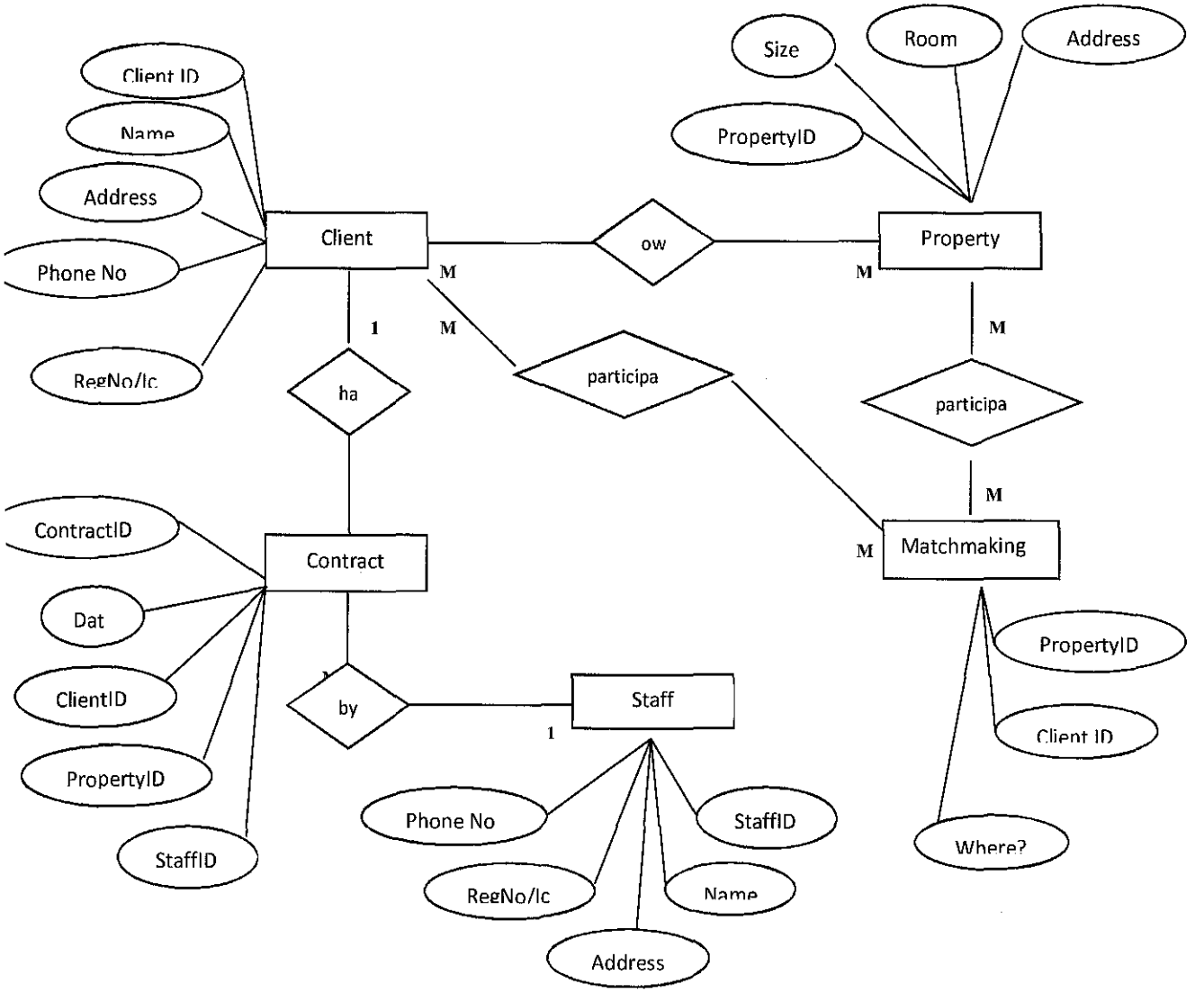

Figure 4.3: Entity Relationship Diagram

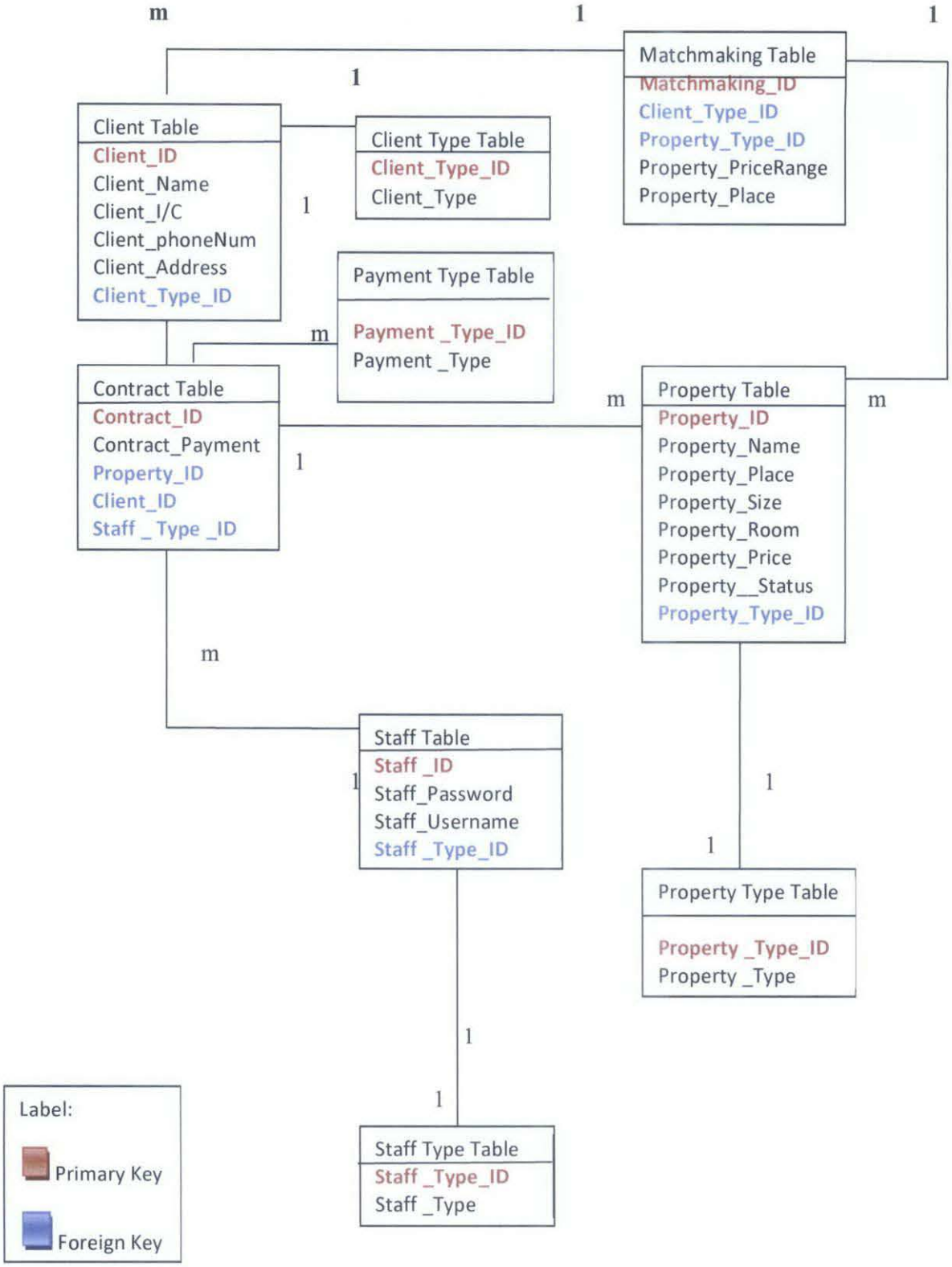

Figure 4.4: Class and Attribute

Regarding both figures above, they slightly represent different things. The author comes out with Figure 4.4 first in order to identify what attribute to use for the system. Its just show the entities needed and the relationship between those entities. And, what attributes needed under those

On the other hand, Figure 4 shows further classes that need to be created in order to make a relationship for each attributes within each entity. Each class will have their own primary key to show their uniqueness and foreign key(s) from other classes in other to make sure that those selected classes can be connected within each other.

So, we go back to the main goal of creating this system, it is to create a matchmaking function. In order to come out with the prediction result of the matchmaking function, there are few other tables that need to be created. For example like type of client and type of properties. Table 4.2 below will shows attributes for the each types of necessary data:

Table 4.2: Matchmaking attributes

Table	Attributes
Type of Client	• Vendor/Landlord • Purchaser/Tenant
Type of Property	• Land • House • Apartment • Shop house
Type of Contract	• Rent • Sell
Type of Payment	• Cash • Bank Loan • Credit Card • Cheque

The next table is the data that will be used for the matchmaking function:

Table 4.3: Matchmaking Table

Matchmaking Table				
Matchmaking_ID	Client_Type_ID	Property_Type_ID	Property_PriceRange	Property_Place
autogenerated	V-vendor L-Landlord T-tenant P-Purchaser	H-House A-Apartment S-shophouse L-Land	a- 150k-350k b- 350k-500k c- 5ook/>	Seksyen 1-15

As the figures above just using the relevant of the possibilities connection, so the next step is to actually build it in Microsoft Access. And, there is possibilities few entities or attributes will be change based on the system requirements.

4.4. Prototype

The prototype for this system had been developing in few phases in order to fulfill the client requirements and expectations. The pictures showed in Figure 4.5 the snapshots of the system and the few functions in first phase of development.

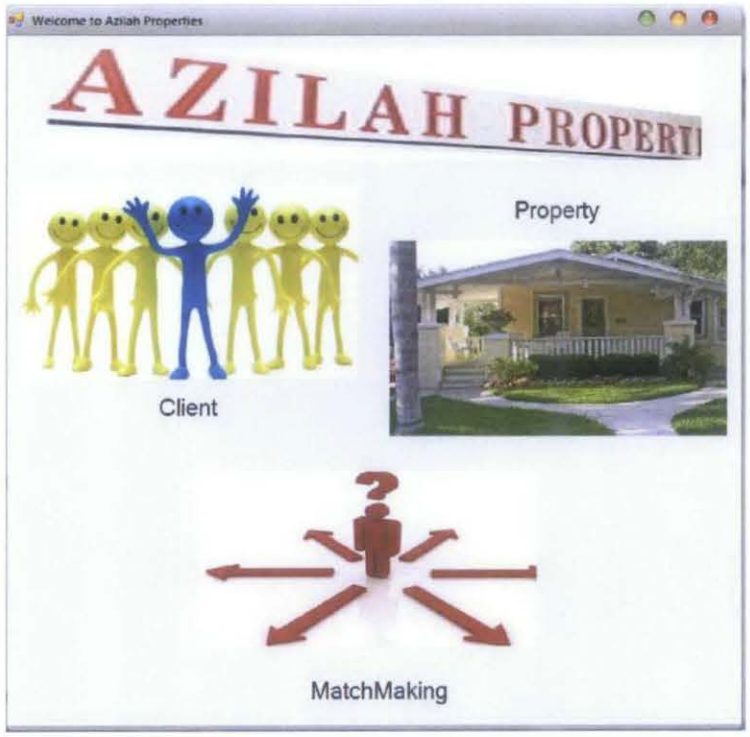

Figure 4.5: Welcome Page

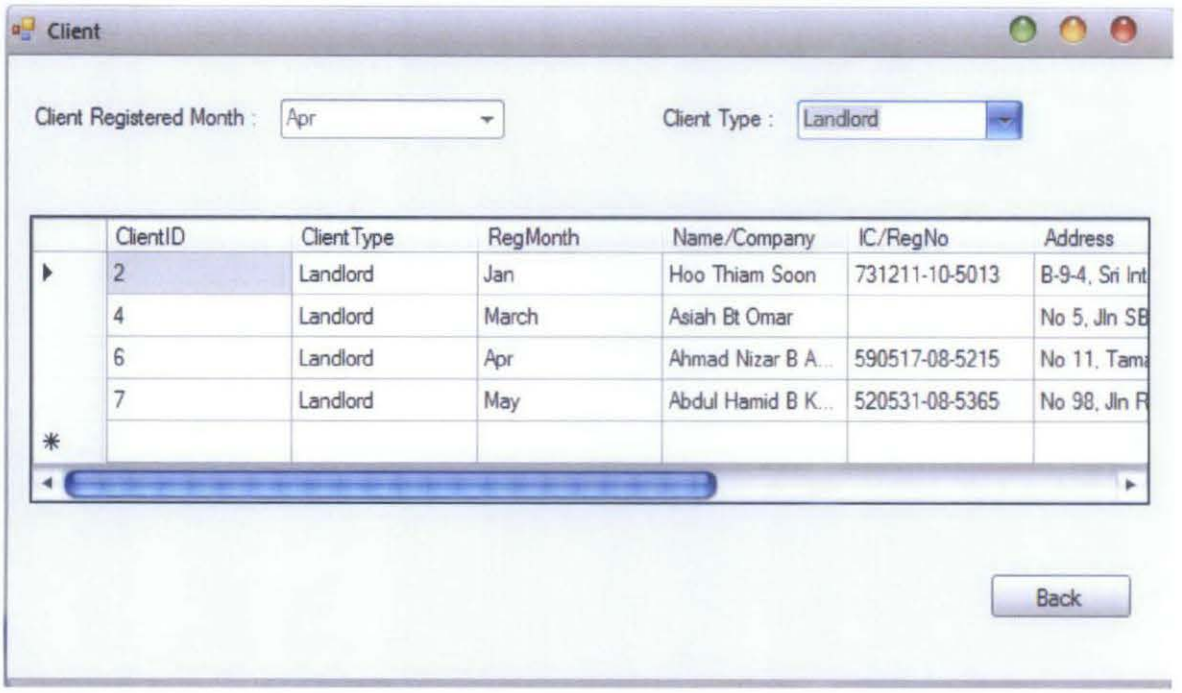

Figure 4.7: Client Page

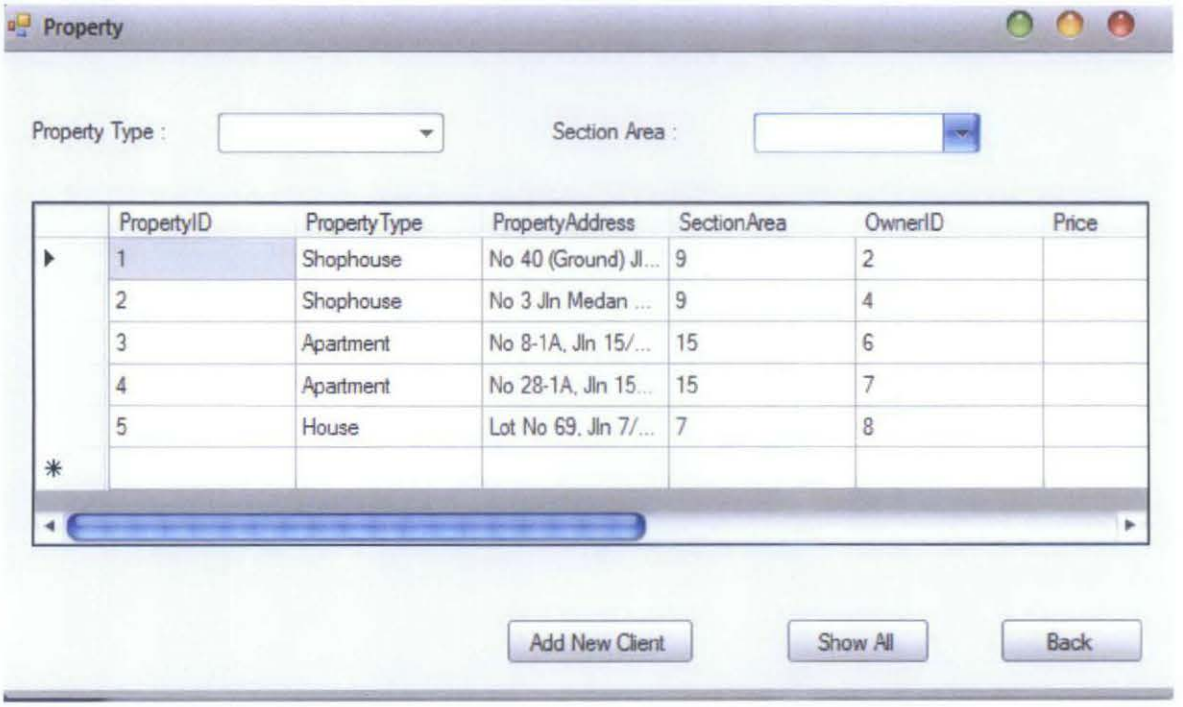

Figure 4.8: Property Page

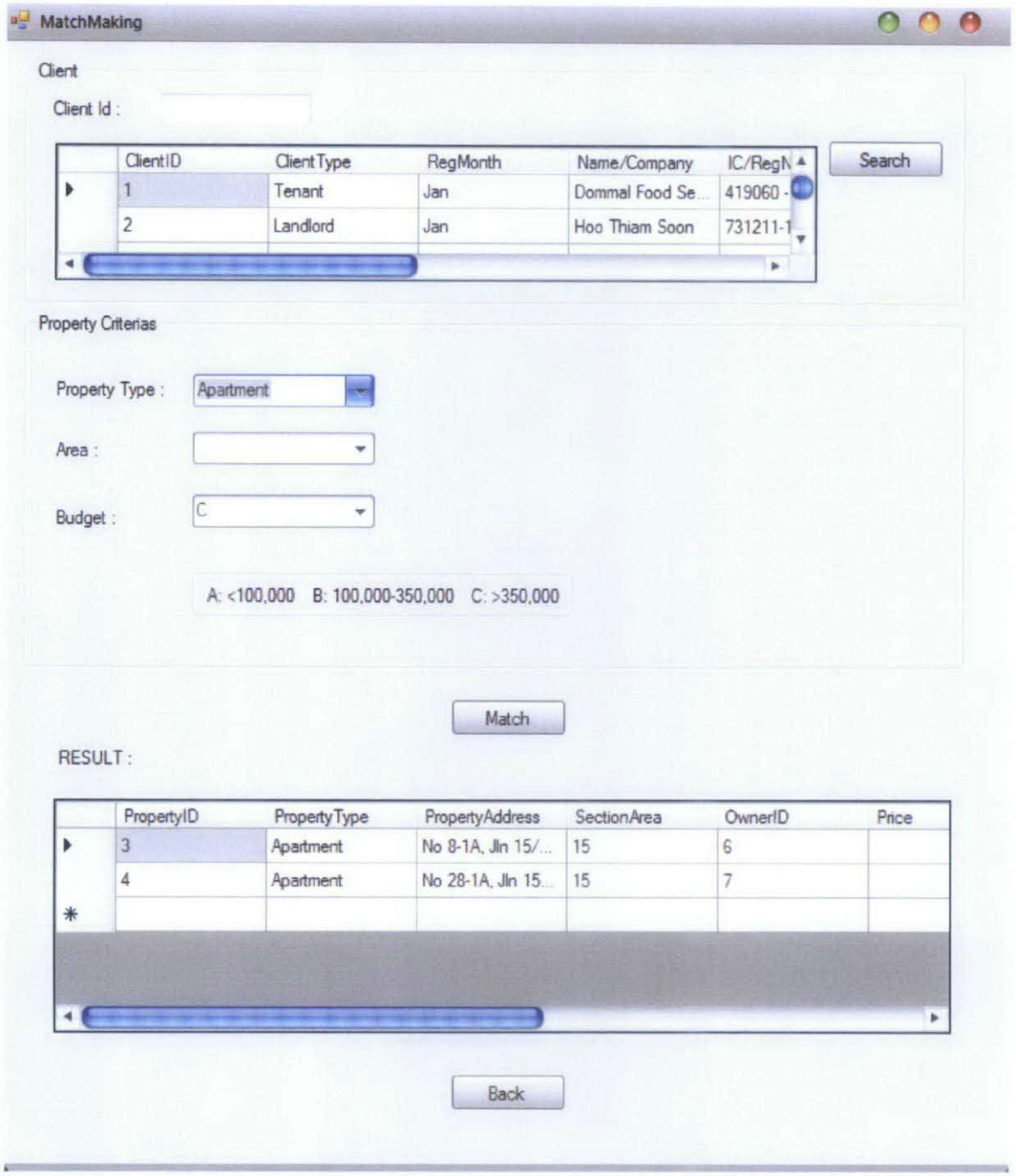

Figure 4.9: Matchmaking Page

4.5. Project Deliverables

4.5.1. Development Process

To make sure that all the functions meet requirements, the author keep on going back to the objective of this system and problem that meant to solve by developing this system. As this system is develop purposely for the small yet increasing real estate and property agency, so there must be included the basic function for data storage and tracking.

During the development process, the author was required to keep on renew the connection between VB and Microsoft Access. It is because, the database keep on crashing due to some changes that had been made after the connection had been made.

For the interface design, the author tried to come out with the most simple and user friendly interface. It is because the main users for the system are from Gen-X where the technology still considered new to most of them nowadays. So the interface should be something that can easily understood and use the simple and common terms.

On the other hand, within this stage, the author has encountered few problems in attempts to pass the value for the multi criteria of matchmaking function, especially when it needs to cooperate with an integer. The picture below shows the example of matchmaking for few criteria.

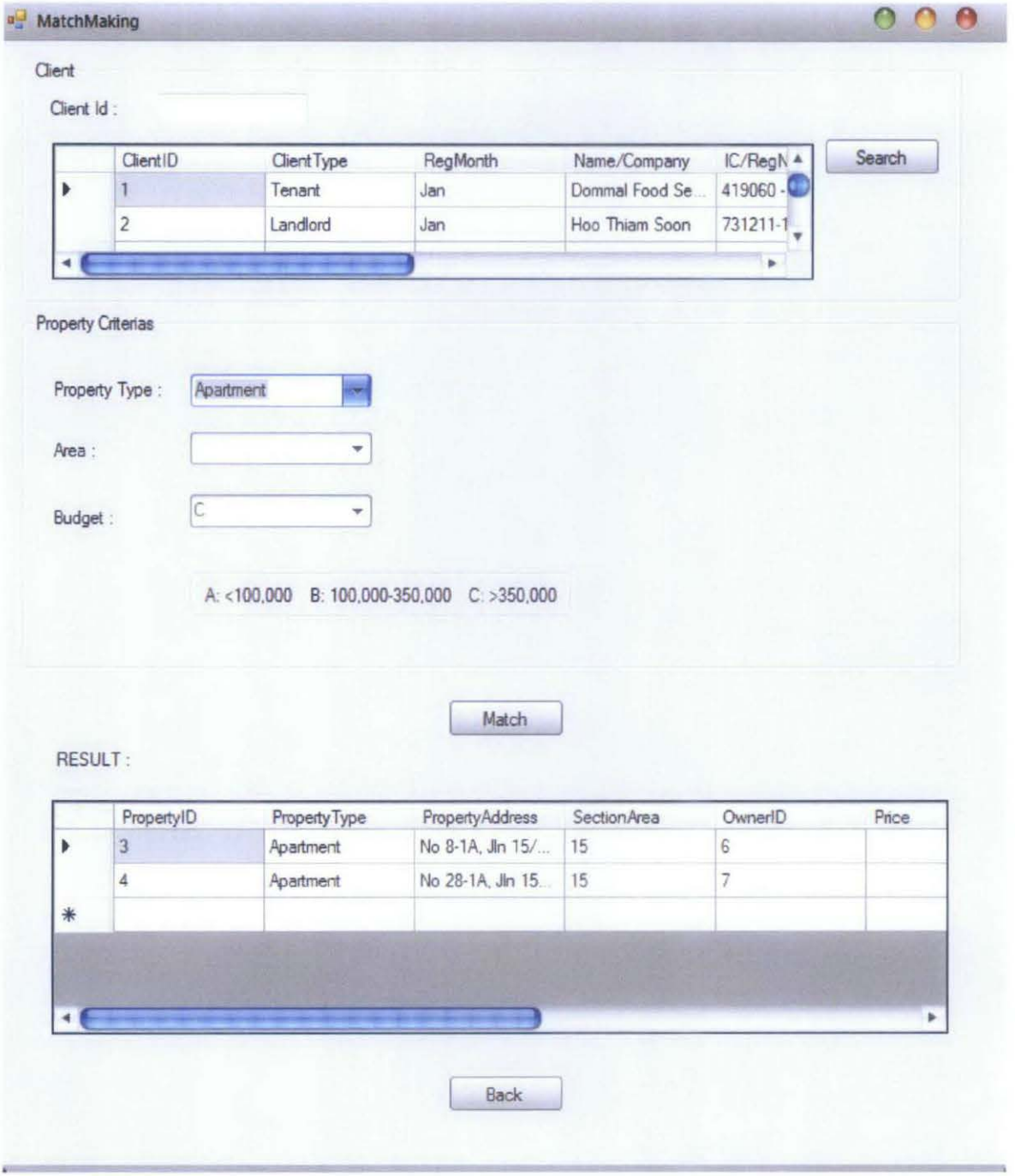

Figure 4.10: Matchmaking Page(multiple attributes)

4.5.2. Function Requirements

In order to design the system, there are several requirements that have been defined. It does include the basic functions like storing and managing the data into database. For the database, the author will only use the Microsoft Access 2003 that compatible with the Visual Basic 2008 that supports the .mdb format.

The main function for this system is matchmaking. It is where the user able to match the client with the possible properties that the client might interest in. This function being done cooperate with the filtering function. The user not only can select on individual criteria but also can select multiple criteria that fulfill the clients need and requirements. For example, the user can choose only property types criteria or combine it with preferred area and budget.

4.6. Discussion

4.6.1. Findings

For the source code, the author gets the idea from the online tutorial. Of course not all the coding works the way it is supposed to work. Some modifications need to be done in order to build the function according to the system requirements.

As a result, the author able to create the desired filtering functions from the Microsoft database through Visual Basic as well as few other functions. The idea was with only one button, all the possible properties for the client will be out and it is just up to the client to choose and decide.

4.6.2. Possible Improvements

The coding that the author write was lengthy and caused the system takes time to execute. The improvement can be made by spending more time in try to figure out what else the available function that already have in the VB that can be used to simplify the source code.

Besides, in order to increase the efficiency and the effectiveness level of the system the author should know the knowledge level of the user regarding the system and technology itself. They system must be supported by the user then it can be a powerful tools. The author should train the user to familiarize with the

4.7. Conclusion

As a conclusion, based on all the data collection the author has come out with the most simple and fulfill the requirements of the client. The system did meet the objective of the system itself. And, at the same time, this system also solves the problem statement earlier where the system has the main function of matchmaking between client and property

CHAPTER 5

CONCLUSION AND RECOMMENDATION

5.1. RECOMMENDATION AND SUGGESTION

There are few suggestions and recommendations are available on how does the system can be enhanced on future.

5.1.1. Google Map

Connect the C-PROMS with the google map to find the exact location of the property. This additional function can help the client to decide faster on what property to buy as the clients can know what facilities and community service available that they have surround the property.

5.1.2. Fingers Print Registration/Recognition

The future CPROMS where the registration of the client can be done even faster just by using their finger prints and chip reader. With this function, the agency can know the background and especially financial history of the client to make sure he/she does n ot meant to cheat.

5.1.3. Iphone/Ipad Apps

Since Iphone and Ipad are getting most attention from today's community, why not try to collaborate with the Apple team to come out with the application for Iphone/Ipad. By having this application, the transaction can be done on that time. There is small device that can attach to Ipad for swapping credit card. That is for confirmation fees or down payment as prove that the client agreed to take the property.

5.2. CONCLUSION

As a conclusion, the C-PROMS is meant to be used in real estate and property industry where additional function of matchmaking have been added into the system. This function will provide the appropriate list of properties for the real estate and property agent to recommend to their valuable clients. At the end of this development, the author hopes that the system will help the agency to perform more efficient and effective in any ways.

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Appendices

Development of Matchmaking System in Properties area : C-ProMS

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Business Information System
Supervisor : Ms Shakirah Mohd Taib

UNIVERSITI TEKNOLOGI PETRONAS

Introduction

Background Study
- As Malaysia is developing, FDI also increase which support the real estate and properties industry
- Today, technology help it to improve, increase efficiency and effectiveness.

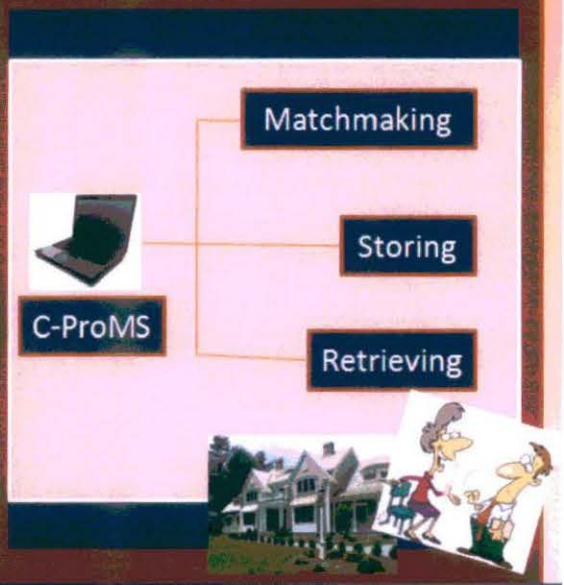
Problem Statement
- Limited manpower
- Data storage centralization
- No matchmaking method available

Objectives
- To provide data centralization
- To create matchmaking function
- To increase the competitive advantage

Scope of Study
- Involve:
  - Study of real estate and properties industry

Literature Review
- On existing system
  - Real Estate Management Information System (RMIS)
  - Real Estate Listing Management Systsem (RELMS)
  - GIS (Geographic Information System) for Real Estate
- System comparison

System Architecture

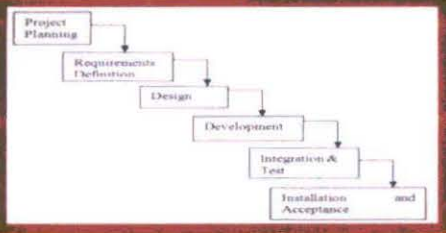


Result & Discussion

Interview's result:
- User requirements (input, output, functions, database)

Snapshot

Methodology



Conclusion

- The additional method, matchmaking function will help the agents to perform their service more effectively and efficientcy.