

# **Intelligent Faraid Calculator Systems**

By

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Dissertation submitted in partial fulfillment of  
the requirements for the  
Bachelor of Technology (Hons)  
(Business Information System)

JULY 2012

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**CERTIFICATION OF APPROVAL**

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A project dissertation submitted to the  
Business Information Systems Programme  
Universiti Teknologi PETRONAS  
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BACHELOR OF TECHNOLOGY (Hons)  
(BUSINESS INFORMATION SYSTEMS)

Approved by,

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UNIVERSITI TEKNOLOGI PETRONAS

TRONOH, PERAK

July 2012

## **CERTIFICATION OF ORIGINALITY**

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

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HARITH HASYIMI BIN HISHAMUDIN

## **ABSTRACT**

The Islamic Inheritance Law is a comprehensive inheritance distribution system. It covers all aspect of distribution of wealth such as how to distribute, to whom and what percentage to be distributed. It is very important for Muslim to learn about the Islamic Inheritance Law because they would face situations that require them to understand the distribution of wealth in the Islamic Law in one day. Hence, the author decides to share the knowledge of Islamic Inheritance Law using Intelligent Faraid Calculator system. The system is mainly proposed to provide the system that can help Muslims to calculate the distribution of wealth based on Islamic Law which most of the Muslim nowadays get confuse with the complexity of the calculation. The research on the system also is used to enhance the current system that being produced by USM student. Last but not least, the objective of the system is to educate the overall Muslims in planning the distribution of the wealth to their family members after they die.

## ACKNOWLEDGEMENT

First and foremost, I owe my deepest gratitude to ALLAH S.W.T for this accomplishment of the final year project and to whom I owe my very existence. I would like to express my deep appreciation and gratitude to the following people for helping me upon my final year project completion.

I offer my sincerest gratitude to my supervisor, Ms. Ainol Rahmah Shazi Bt Shaarani for her guidance, advice and encouragement throughout the process of completing this project. She always supported me throughout my final year project with patience and knowledge whilst allowing me to work in my own way.

Not to be forgotten, I would like to thank to all of my friends and acquaintances that willing to help me on answering the survey questions. I am indebted to many individuals who are helping me during the process of completing this project. They are people of my respect who involve directly or indirectly throughout this project.

Other than that, I would like to thank my parent for giving me the financial and moral support along the completion of my final year project. I hope, with the support from all of the people I have mentioned above, this project will contribute to the betterment of the people especially for the Muslims community.

Last but not least, I sincerely would like to apologize for any mistaken that I made accidentally during this project.

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# CHAPTER 1

## INTRODUCTION

### 1.1 Background of study

Intelligent Faraid Calculator System is an application that can facilitate Muslims to understand the Islamic Inheritance Law easily and help to calculate the distribution of wealth based on faraid law. Literally, faraid have numerous meanings. Some of the linguistic meaning is To Decide, To Halal, To Ensure and Obligate. In Islamic Law, faraid refer to division of properties when a Muslim passed away without leaving any will before his death. The properties will then be divided within family members and relatives following Islamic Inheritance rules.

Based on Surah an-Nisa – verse 7:

**‘Men shall have a portion of what the parents and the near relatives leave, and woman shall have a portion of what the parents and the near relatives leave, whether there is little or much of it; a stated portion.**

For Muslims, Al-Quran and Hadith provide complete guidance on the distribution of wealth among heirs of a person who pass away. Distributing the wealth appropriately needs thorough studies or expert assistance, because the set of laws stated are unique to each person. Besides, the distribution of wealth stated in Al-Quran is very complex for normal people who do not have the knowledge on Islamic inheritance.

In Malaysia usually, when someone passes away, his or her relatives will go to someone who has the knowledge in Islamic Inheritance Law to calculate the distribution, which can be cumbersome when family members are geographically distributed. They need to refer to the nearest Islamic State Department to know the status of the wealth and the total of distribution that can be made. It is much easier to get an estimate through the proposed systems.

Starting with the development of intelligent systems in the early seventies, and also computer software, scientists always seek to resolve problems through intelligent programmes (Donald, 1986). Starting from that, many of the renovations were made to enhance the quality of life. However, there is not many intelligent systems were developed to increase the quality of life of a Muslim. It contributes to the reason why Muslim people were left behind. (Suryadarma, 2009) Hence, the development of Intelligent Faraid Calculator system is mainly to enhance the usage of intelligent system to facilitate the Muslim people to perform their duties.

## **1.2 Problem Statement**

Estate management in Islam, better known as the Islamic Inheritance Law or Faraid Law is a branch of science knowledge that must be understood by all Muslims. In this case, the Prophet (p.b.u.h) himself has warned the Muslims not to ignore this knowledge. He said:

**"Learn faraid knowledge and teach it to others.'I will die, this knowledge will die and will have chaos. So when the two clashed for the estate, they could not find anyone who can solve their cases."** (Hadith narrated by al-Hakim from Ibnu Mas'ud)

However, most Muslims in Malaysia currently are not well-versed with faraid knowledge. As a result almost RM40 billion of cash and non-cash assets left by the dead and yet to be claimed by heirs, (NST, 2007). In addition, the estate is among the main threats to the destruction and collapse of the family institution, (Berita Harian, 2012).

This is exacerbated when family members are willing to cut off their brotherhood and family ties because they are not satisfied with the distribution of the estate. Surely this is a symptom which struck the Muslims because the lack of understanding of knowledge in Faraid Law. Thus, an understanding of the methods and basic conditions are necessary to avoid cases of fights between families occurred.

Faraid knowledge actually is a very complex science moment. It requires a deep understanding on the distribution method. In addition, the calculation method is also very difficult to understand if they do not learn about science of faraid carefully. It is very complex calculation that many of the Muslims nowadays tried to take it easy on Faraid Law. Thus the production of Faraid Intelligent Calculator System is hoped can facilitate the Muslims in their duties.

However, there is also the latest faraid system provided by USM student. This system unfortunately does not shown the exact figure on the amount of the wealth that should be distributed. (The faraid system by USM student can be referred to this link: <http://maths.usm.my/faraid/msl/faraid.asp>). Thus, the production of Intelligent Calculator Faraid expected to help increase understanding and improve the existing system.

### **1.3 Objectives of Study**

The objectives of this project are to conduct research on the development of the Intelligent Faraid Calculator Systems and to test user satisfaction in using the prototype.

For the development of the Intelligent Faraid Calculator Systems, the objective is to develop a system that can provide the following functionalities:

1. To be able to provide accurate calculation in the distribution of wealth.
2. To improve and completed the current system.
3. To educate Muslims on faraid systems and its calculation.

#### 1.4 Scope of the Study

This study focus on the value of portion from inheritor to inherited and depends on the Islamic rules in inheritance during the Query and questions from an expert system. Besides that, the study focuses on correct distribution of the wealth of a deceased person and money associated with all forms of worship, directly or indirectly. This study involve an intelligent system containing rules related to 15 from male side (refer to table 1.1) and 10 from female side (refer to table 1.2) with priority and entitlement portion to be receive from the portion of an inheritor to inherited such as show in Table 1.1 and Table 1.2.

No.	Heir on male side
1	Son
2	Son of Son
3	Father
4	Father of Father
5	Full Brother
6	Consanguine Brother
7	Uterine Brother
8	Son of Full Brother
9	Son of Consanguine Brother
10	Full Brother of Father
11	Consanguine Brother of Father
12	Son of Full Brother of Father
13	Son of Consanguine Brother of Father
14	Husband
15	Male Slave Master

**Table 1.1: List of male's heir that entitled to the deceased wealth**

If all the heirs in Table 1.1 exist only 3 heirs entitled to receive portion:

- a) Father
- b) Son
- c) Husband

No.	Heir on female side
1	Daughter
2	Daughter of Son
3	Mother
4	Mother of Mother
5	Mother of Father
6	Full Sister
7	Consanguine Sister
8	Uterine Sister
9	Wife
10	Female Slave Master

**Table 1.2: List of female's heir that entitled to the deceased wealth**

If all heirs in Table 1.2 exist, only 5 heirs entitled to receive portion:

- a) Daughter
- b) Daughter of Son
- c) Mother
- d) Full Sister
- e) Wife

If all 25 heirs in Tables (1.1 and table 1.2) exist, priority is given to only 5 heirs:

- a) Father
- b) Mother
- c) Son
- d) Daughter
- e) Husband or Wife

### **1.5 Relevancy of the Project**

The implementation of Intelligent Faraid Calculator systems is very relevant with the current situation for Muslim's world in Malaysia. With almost RM 40 billion of cash and non-cash assets left by the dead and yet to be claimed by heirs, the systems is designed to facilitate the Muslims in handling problems regarding Islamic Inheritance Law. All Muslims can make immediate check of their wealth based on Faraid Law.

### **1.6 Feasibility of the Project within the Scope and Time Frame**

The system will be completed based on the given time frame. Regarding the time frame, the project development will takes two semesters of study which is enough for the author to complete the development of the project. For the first semester, the author will focus on planning, analysis and design phases which are concentrating more on research paper. On the other hand, during the second semesters, the author will focus more on implementing the Intelligent Faraid Calculator systems.

## CHAPTER 2

### LITERATURE REVIEW

Islam is the way of life. It is a religion that embraces every aspect in people's life (Hassan, 1924). In Islam, Allah has created certain rules and regulations; and the rules that are stated by Allah give benefits to Muslims in their daily life before and also after their death. Hence, Islam has come with a fair system in distributing the property to the rightful heirs. This is very important to ensure all the family members, get the right share of the inheritance property. Nowadays, faraid is a knowledge that lots of people easily forget because they think that the knowledge is not significant to learn (Faizul, 2011). Hence, the research is trying to revive back the importance of this knowledge to the Muslims in the world.

**"Learn faraid knowledge because it is part of your religion and it is half of knowledge. It is also the first knowledge extracted from my people."** (Hadith narrated by Ibnu Majah from Abu Hurairah)

#### 2.1 What is faraid?

It is combination of Fiqh and Arithmetic knowledge that will lead to a proper reward obtained by each of the beneficiaries from the assets of the deceased (Adnan, 2009). There are three (3) pillars of inheritance:

- 1- Al-Muwarrith : The deceased
- 2- Al-Warith : The persons who will inherit the deceased's estate
- 3- Al-Mauruth : Property being left by the deceased

All of the pillars are very vital in Faraid knowledge. Anyway, it only focuses in two things that is the heirs and also the way to distribute the property. Therefore, it is important to the Muslims to know the lineage of the deceased and the method to calculate before the distribution can be done.

Property that is divided to the heirs is the remaining property that being left after deducting all funeral financing, the deceased's debts to the people, zakat, and also his or her will. The rights division of the properties is a must to be fulfilled and it is 'fardu kifayah' to the Muslims especially the heirs to settle the distribution of the wealth on behalf of the deceased. 'Fardu kifayah' means, if there is no one do the thing, all Muslims at that place will get sins (Hasnul, 2010). The properties that can be divided among the heirs are:

- 1- Land, garden, field and etc.
- 2- Building (House, Factory building, Warehouse, etc)
- 3- Jewelry (Gold, silver, diamond, etc).
- 4- Insurance, stock, bond, cash and etc.
- 5- Livestock (Cow, goat, camel and etc.)

## 2.2 Rules of inheritance, in sura Al-Nisa (Al-quran)

يُوصِيكُمُ اللَّهُ فِي أَوْلَادِكُمْ لِلَّذِي كَرِهَ مِثْلَ حَظِّ الْأُنثَيَيْنِ فَإِنْ كُنَّ نِسَاءً فَوْقَ اثْنَتَيْنِ فَلَهُنَّ ثُلُثَا مَا تَرَكَ وَإِنْ كَانَتْ وَاحِدَةً فَلَهَا النِّصْفُ وَلِأَبَوَيْهِ لِكُلِّ وَاحِدٍ مِّنْهُمَا السُّدُسُ مِمَّا تَرَكَ إِنْ كَانَ لَهُ وَلَدٌ فَإِنْ لَمْ يَكُنْ لَهُ وَلَدٌ وَوَرِثَهُ أَبَوَاهُ فَلِأُمِّهِ الثُّلُثُ فَإِنْ كَانَ لَهُ إِخْوَةٌ فَلِأُمِّهِ السُّدُسُ مِنْ بَعْدِ وَصِيَّةٍ يُوصِي بِهَا أَوْ دَيْنٍ وَأَبَاؤُكُمْ وَأَبْنَاؤُكُمْ لَا تَدْرُونَ أَيُّهُمْ أَقْرَبُ لَكُمْ نَفْعًا فَرِيضَةٌ مِنَ اللَّهِ إِنْ اللَّهُ كَانَ عَلِيمًا حَكِيمًا ﴿١١﴾

*Allah instructs you concerning your children: for the male, what is equal to the share of two females. But if there are [only] daughters, two or more, for them is two thirds of one's estate. And if there is only one, for her is half. And for one's parents, to each one of them is a sixth of his estate if he left children. But if he had no children and the parents*



[alone] inherit from him, then for his mother is one third. And if he had brothers [or sisters], for his mother is a sixth, after any bequest he [may have] made or debt. Your parents or your children - you know not which of them are nearest to you in benefit. [These shares are] an obligation [imposed] by Allah . Indeed, Allah is ever Knowing and Wise. (Verse 11)

Interpretation of the previous verse: Allah directs you as regards your children about the inheritance; to the male, a portion equal to that of two females; if only daughters, two or more, their share is two thirds of the inheritance; of only one, her share is a half. For parents, a sixth share of the inheritance to each, if no children, and the parents are the only heirs, the mother has a third; if the deceased left brothers or sisters the mother has a sixth. The distribution in all cases is made after the payment of legacies and debts. We know not whether our parents or our children are nearest to us in benefit. These are settled portions ordained by Allah; and Allah is all knowing, all wise. This verse explain heirs entitled to receive faraid portion according to the rules (2/3, 1/2, 1/6, 1/3).

❦ وَلَكُمْ نِصْفُ مَا تَرَكَ أَزْوَاجُكُمْ إِنْ لَمْ يَكُنْ لَهُنَّ  
وَلَدٌ فَإِنْ كَانَ لَهُنَّ وَلَدٌ فَلَكُمْ الرُّبْعُ مِمَّا تَرَكَنَّ مِنْ  
بَعْدِ وَصِيَّتِ يُوْصِيْنَ بِهَا أَوْ دَيْنٍ وَلَهُنَّ الرُّبْعُ مِمَّا  
تَرَكَتُمْ إِنْ لَمْ يَكُنْ لَكُمْ وَلَدٌ فَإِنْ كَانَ لَكُمْ وَلَدٌ  
فَلَهُنَّ الثُّمْنُ مِمَّا تَرَكَتُمْ مِنْ بَعْدِ وَصِيَّتِ تُوْصَوْنَ بِهَا  
أَوْ دَيْنٍ وَإِنْ كَانَتْ رَجُلٌ يُورِثُ كَالثَّلَاةِ أَوْ امْرَأَةً وَلَهُنَّ أَوْ  
أُخْتٌ فَلِكُلِّ وَاحِدٍ مِّنْهُمَا السُّدُسُ فَإِنْ كَانُوا أَكْثَرَ مِنْ  
ذَلِكَ فَهُمْ شُرَكَاءُ فِي الثُّلُثِ مِنْ بَعْدِ وَصِيَّتِ يُوْصَى بِهَا أَوْ  
دَيْنٍ غَيْرِ مُضَارٍّ وَصِيَّةً مِنَ اللَّهِ وَاللَّهُ عَلِيمٌ حَلِيمٌ ﴿١٢﴾

And for you is half of what your wives leave if they have no child. But if they have a child, for you is one fourth of what they leave, after any bequest they [may have] made or debt.

*And for the wives is one fourth if you leave no child. But if you leave a child, then for them is an eighth of what you leave, after any bequest you [may have] made or debt. And if a man or woman leaves neither ascendants nor descendants but has a brother or a sister, then for each one of them is a sixth. But if they are more than two, they share a third, after any bequest which was made or debt, as long as there is no detriment [caused]. [This is] an ordinance from Allah , and Allah is Knowing and Forbearing. (Verse 12)*

Interpretation of the previous verse, in what your wives leave, your share is a half, if they leave no child; but if they leave a child, ye get a fourth; after payment of legacies and debts. In what you leave, their share is a fourth, if ye leave no child; but if you leave a child, they get an eighth; after payment of legacies and debts. If the man or woman whose inheritance is in question, has left neither ascendants nor descendants, but has left a brother or a sister, each one of the two gets a sixth; but if more than two, they in a third; after payment of legacies and debts; so that no loss is caused (to any one). Thus is it ordained by Allah; and Allah is all knowing, most forbearing. This verse explain heirs entitled to receive faraid portion according to the rules (1/2,1/4,1/8,1/6,1/3).

يَسْتَفْتُونَكَ قُلِ اللَّهُ يُفْتِيكُمْ فِي الْكَلَالَةِ إِنِ امْرُؤٌ هَلَكَ لَيْسَ لَهُ  
 وَلَدٌ وَلَا أُخْتُ فَلَهَا نِصْفُ مَا تَرَكَ وَهُوَ يَرِثُهَا إِن لَّمْ يَكُنْ لَهَا  
 وَلَدٌ فَإِن كَانَتَا اثْنَتَيْنِ فَلَهُمَا الثُّلثَانِ مِمَّا تَرَكَ وَإِن كَانُوا إِخْوَةً رِّجَالًا  
 وَنِسَاءً فَلِلذَّكَرِ مِثْلُ حَظِّ الْأُنثَيَيْنِ يُبَيِّنُ اللَّهُ لَكُمْ أَن تَضِلُّوا  
 وَاللَّهُ بِكُلِّ شَيْءٍ عَلِيمٌ

*They request from you a [legal] ruling. Say, " Allah gives you a ruling concerning one having neither descendants nor ascendants [as heirs]." If a man dies, leaving no child*

*but [only] a sister, she will have half of what he left. And he inherits from her if she [dies and] has no child. But if there are two sisters [or more], they will have two-thirds of what he left. If there are both brothers and sisters, the male will have the share of two females. Allah makes clear to you [His law], lest you go astray. And Allah is Knowing of all things. (Verse 176)*

Interpretation of the previous verse: they ask thee for a legal decision, say: Allah directs (thus) about those who leave no descendants or ascendants as heirs. If it is a man that dies, leaving a sister but no child, she shall have half the inheritance: if (such a deceased was) a woman, who left no child, her brother takes her inheritance: if there are two sisters, they shall have two thirds of the inheritance between them: if there are brothers and sisters, they will share and the male having twice the share of the female. Thus doth Allah make clear to you of his law, lest you err, and Allah hath knowledge of the entire thing. This verse explains about the heirs entitled to receive faraid portion according to the rules (1/2, 2/3).

### **2.3 Faraid systems in Malaysia**

In Malaysia, there is a step that must be followed before the property can be distributed among the heirs (Ahmad, 2011).

- 1- Settle all the funeral expenses
- 2- Settle all the deceased's debt
- 3- Execute the will of the deceased
- 4- Resolve the matrimonial property claim
- 5- Finally, the property will be distributed among the heirs according to the faraid law.

If the deceased did not leave any will, the beneficiaries must manage the estate of the deceased's body right through to distribution of the estate. Below is the body that handles the estate matter in Malaysia:

### Civil High Court

The heirs need to refer to the civil high court if the value of liquid assets and fixed assets of the deceased are more than RM 2 million. However, if the deceased has made a will, all the affairs of the estate will be at the Civil High Court.

### Small Estate Office at Land Office

The heirs need to refer to the office if the value of liquid assets and fixed assets of the deceased are up to RM 2 million.

### Amanah Raya Berhad

The heirs need to refer to the Amanah Raya Berhad if the liquid assets of the deceased are up to RM 600 thousand.

## **2.4 Problems faced by Muslims in Malaysia**

Generally, Muslims will only learn the knowledge when there are a person death and the property of the death person need to be distributed among the heir. This situation should not happen because it will cause lots of trouble. Recently, there were one million unsettled cases for distribution of property were happened in Malaysia that worth more than RM 42 billion (Saruji, 2011). These cases were happen because the family members and the heirs did not know about the Faraid law. They did not know whether they were the one who can have the property or not. They also did not know how much from the property that can they have.

All of the confusing become worsens, when they did not know where to refer and to whom they should ask. As the result, they will just neglect the problems and it contributes to the increment of the unsettled cases.

## 2.5 Existing system developed for faraid

There is a website from University of Science Malaysia (USM) developed on Islamic inheritance law. The system is a computerized solution to the faraid management system which is a method of division of inheritance of the deceased's properties among the immediate family and relatives according to the Islamic law developed by the department of mathematics, University Sains Malaysia.

However, this system is not complete as it only shows the result in fractional form of the property that can be distributed. It does not have a function to show the exactly amount of the property that can be have by the heirs of the deceased.

Figure 2.1: The system that being developed by USM

## 2.5 Proposed System

In other to solve the problem, the author decides to improve the existing system produced by USM with a new one which will be called as Intelligent Faraid Calculator System. It is an application that can facilitate Muslims to understand the Islamic Inheritance Law easily and help to calculate the distribution of wealth based on Faraid law. It is very complex calculation that many of the Muslims nowadays tried to take it easy on Faraid

Law. Thus the production of Faraid Intelligent Calculator System is hoped can facilitate the Muslims in their duties.

In addition, the new feature that will be added to the system is a multiple language options especially English language option. It is because nowadays, English language has become a lingua franca (Seidlhofer, 2005). So, that other people who did not understand malay language will use the proposed system.

Other than that, the new improve system also will have a feature that will show the exact amount of the property that can be had by the heirs of the deceased. It is what the current system is lacking and need improvement. Refer below for the example of USM system.

WARIS	PMBHGN ASAL	TASH-HIEH
2 Isteri	1/8	10/80
3 Anak Perempuan	21/40	42/80
1 Anak Lelaki	7/20	28/80
1 Anak Perempuan kepada Anak Lelaki	0/1	0/80
4 Saudara Lelaki Kandung	0/1	0/80

Figure 2.2: The result being executed by the USM system

Thus, the production of Intelligent Calculator Faraid expected to help improving the current system. Last but not least, before the system can be used, it will be checked by the expert and experienced scholars in Islamic inheritance law.

## **CHAPTER 3**

### **METHODOLOGY**

#### **3.1 System Development Life Cycle**

System Development Life Cycle (SDLC) in literal meaning is a framework that explains the actions involved at every stage of a software development project. There are five stages involved in a software development project which are;

- 1- Systems planning and Investigation
- 2- System Analysis
- 3- Systems Design
- 4- Systems Implementation (Programming, Testing and Documentation)
- 5- Systems Maintenance.

Therefore, in this chapter, the author will explain step -by-step the development of the Intelligent Faraid Calculator system according to the stage in SDLC. Other than that, there are a few types in system development methodologies. Each methodology gives different approach to implement the SDLC.

In this project development, author decides to develop the system using Rapid Application Development (RAD) model. This model is selected because it uses iterative prototyping method and suitable for project which has a time constraint that very limited. (Mortimer, 1995).

##### **3.1.1 Rapid Application Development (RAD)**

The Rapid Application Development model consists of four main phases (Martin, 1991) :

- 1- Analysis and Quick Design
- 2- Prototype Cycle
- 3- Testing
- 4- Implementation

The author believes that using this model in developing the system will help to complete the system within the time frame given. It is because author only has two (2) semesters to complete the project. RAD model is more applicable than Waterfall model because the author can constantly put an effort with the prototyping until it fulfills the user requirements. It force author to work hard on the system itself and continue developing prototypes until finish.

There are a lot of advantages in adopting RAD model for the development of the system. Some of them are:

*1- Flexibility*

According to Purcell (n.d), RAD model allows a quick requirements gathering process and development of the system prototype. Feedbacks from the users will then be used as a platform for the developers to increase the feature of the system and gain a further insight into the business requirements as the development goes along.

*2- Appropriateness and speed*

The author has only about 2 semesters to finish the completed system. Therefore, by using RAD model, the author would be able to start of the development stage as early as the primary scope been defined; and the enhancements can be carried on along the development stage. Besides, the author will also be able to produce prototypes, test them, and enhance from time to time until the complete working system is produced within the time frame.

### **3.2 Planning and Data Gathering**

Planning and data gathering is the first stage of the project development. This stage is very important since it gather all data and information required to ensure the development of the project running successfully.



During the planning and data gathering stage, the studies are conducted to determine the overall objectives of the projects. It is to ensure that the topic chosen is relevant and did not overlap with the current system. Then the background study, problem statement, objectives, scope of the system and existing research paper that related to this project are identified and documented.

After that, the author has specified the important features and scope of the project and identifies the sources of knowledge including the Islamic Inheritance Law experts and from other sources of knowledge such as books, annual report, Internet and others.

Author also has decided the tools that required for the development of the system which is Visual basic.net program. Lastly, the author will implement the Gantt chart to plan the project scheduling and time allocation for each necessary task. Gantt chart of the project is attached in Appendix.

### *3.2.1 Studies of the Problem Statement*

Based on the problem statement, author has conducted a study on the problem to get the required data. There were two (2) different actions that have been taken by the author:

#### 1. Online Questionnaire

A questionnaire was conducted to know the level of Muslim understanding in Faraid knowledge. It is also being conducted to know the opinion of the Muslim especially in Malaysia about the system that going to be developed.

The online questionnaire was randomly targeting the Muslim's university students in Malaysia. The student was chosen because they have learned the Faraid law during school time and the author want to know the level of understanding among the students. Other than that, it was designed to be online because the author wants to reach students from all over the Malaysia. It can save time and also facilitate the author in the data collection process.

## 2. Interview with faraid expert

In addition, a few interview session with faraid expert also being conducted in order to give the author clear picture and understanding of the Faraid law.

The author has decided to choose Drs Dawi Cahyono bin Nurdin as the Islamic Inheritance Law experts in order to guide the author to get the right information on the calculation and information of the faraid. Mr. Dawi Cahyono currently working as 'Imam' in An-Nur Mosque and he is involved in Islamic State department that handled the Faraid law.

The problem statement and user requirement of the system have to be further studied. This is why methodologies such as online questionnaire and interview being conducted.

### **3.3 Analysis**

After going through the planning stage, the author continues to the next phase of the project development, which is analysis stage. This phase is important because result of the analyzed data will be used to determine whether system proposed meets the user requirements or not.

For this project, this phase includes the process of interpreting and analyzing the knowledge and data collected during planning phase. This process provides the guidance in designing the new technique for collecting the additional knowledge from the human expert and other sources.

Hence the author has analyzed the result of online questionnaire and interview to get the details information on how to produce the system. The analysis was done to produce the conceptual design of the required system. Below are the details of the steps carried out during analysis stage.

1. The results from the questionnaire were converted to pie charts in order to have facts and figures.
2. Then the figures were interpreted to have a depth analysis on the system.
3. After that, the analysis from the online questionnaire was combined with the information got from the interview with faraid expert to get the clear picture on how the system will be developed.
4. After all the analysis being completed, the author started to design the conceptual and physical design,

### **3.4 Design**

During the design stage, the overall structure and organization of the system's knowledge are defined. In this phase also, an initial design prototype system of Intelligent Faraid Calculator, is built. These designs are based on the result of the data analysis.

#### 3.4.1 Graphical User Interface

Before starting with the coding execution, the author needs to develop and test the paper-based graphical user interface design (Sommerville, 2004). The paper-based graphical user interface design should be based on the data that has been analyzed. Then, the paper-based design needs to be evaluated by the users and get the response towards the existence interface.

#### 3.4.2 Conceptual design

To come out with conceptual design, the author has designed the flowchart to know exactly how the new system would be functioned. Conceptual design is a description of the proposed system in terms of a set of integrated ideas and concepts about what it should do, behave and look like, that will be understandable by the users in the manner intended. The flowchart will be discussed more under chapter 4.

### 3.4.3 Physical Design

The project will be developed using a personal computer using Visual Basic.net (VB.net) software.

#### **Tools Specifications**

Software: VB.net, Access Database

Hardware: Personal Computer

### **3.5 Prototyping Cycle**

The next stage for RAD model is prototyping cycles. During this stage, the author can continuously improve, construct and demonstrate the prototype until it fulfills user requirement. The author also needs to install all the software required such as VB.net before starting to develop the prototype. Below are the steps carried out for the prototype stage:

- 1- The author will improve the current design for prototype model until it meets user requirement.
- 2- The prototype's design will be coded based on the conceptual and the graphical user interface during design phase earlier.
- 3- The author then codes the class diagram of the prototype, which consists of the attributes and function for each class using VB.net.
- 4- Lastly, the author will demonstrate the prototype to the users. All of the three steps above will be repeated until the users satisfy with the developed prototype.

All the demonstration of the prototype will be monitored closely by the faraid expert to ensure that the system is compliance to faraid law.

### **3.6 Testing**

After meeting the user satisfaction for the developed prototype, author can start to make a test on the prototype. By making a test on the prototype, author will realize the improvement that can be considered into the prototype. However, testing and verification stage will be a continuous process throughout the projects.

The author will modify the systems along the process as the system should be up-to-date and following the current trend. The new technology also can be added to the system and directly to the knowledge base if there is any. The system then will be validated by the Syariah expert in order to ensure all the information about the Islamic inheritance laws is correct and accurate.

### **3.7 Implementation**

The last stage for the project development is the implementation stage. During this stage, the author will implement the system first before it can be used by the users. Last but not least, almost all of the time allocated for the project development will be devoted to implementation phase.

## CHAPTER 4

### RESULTS AND DISCUSSIONS

#### 4.1 Introduction

The system development cycle was half-completed. The author has managed to get the results through the methodologies adopted. There is two parts on this chapter; part one is discussing the results of online questionnaire and expert interview. Second part will mention about the project development.

#### 4.2 Data Gathering and Analysis

The author has taken the initiative to conduct an online questionnaire, randomly targeting the Muslim's university students in Malaysia in order to see their opinions on this project. The significant of targeting this group of people is due to the following factors:

i. They are required to comply with the Islamic Inheritance law and might face the real situation in the nearest time.

Muslims need to comply with the Islamic Law as it is compulsory and shows good guidance and prevent from any problem in the future. Hence, no matter what, this group of people will have to face the situation where they need to know about Faraid law and how to calculate the distribution of wealth when one of their family members die in the future.

ii. They are the more exposed to the knowledge and have gone through the education system in Malaysia.

As university students, they surely have gone through the current education in Malaysia. Hence, it will help the author to know the current level of understanding on Faraid Law and to forecast whether the proposed system will help to solve the problem or not.

iii. They are more open to new technology and technology savvy

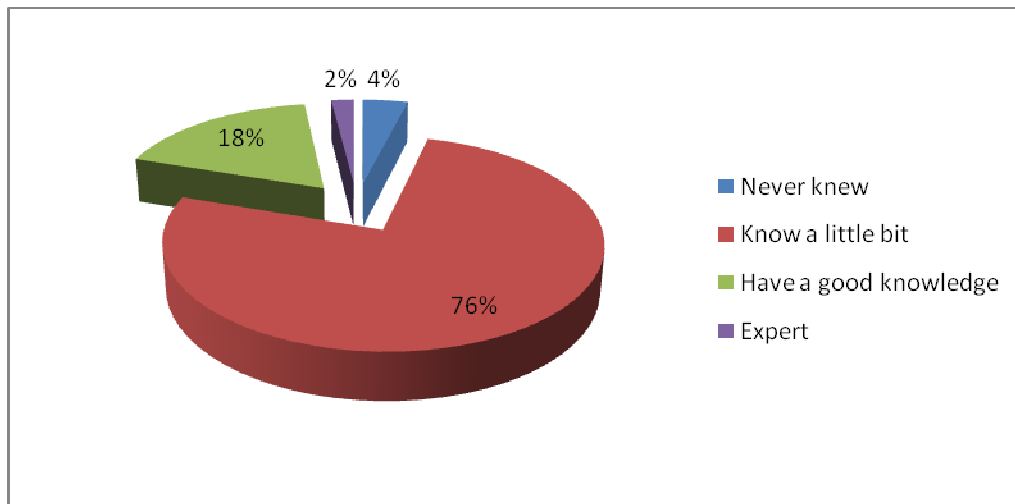
This group of people is more open towards new technology. They also have more exposure to the series of technology being introduced in the current times. Hence, it is more practical to the author to target this group of people in using the propose system in the future

The author took the advantage of the free online questionnaire generator and promotes the link through social networks such as twitter and facebook; specifically on the university group pages. Hence, this will help the author to reach the university student easily while gaining more insight and feedbacks other people on the feasibility of this project in the country.

Hence, based on the 100 random samples on students, below are the results based on the questions asked in the questionnaire.

#### **4.2.1 Analysis from survey**

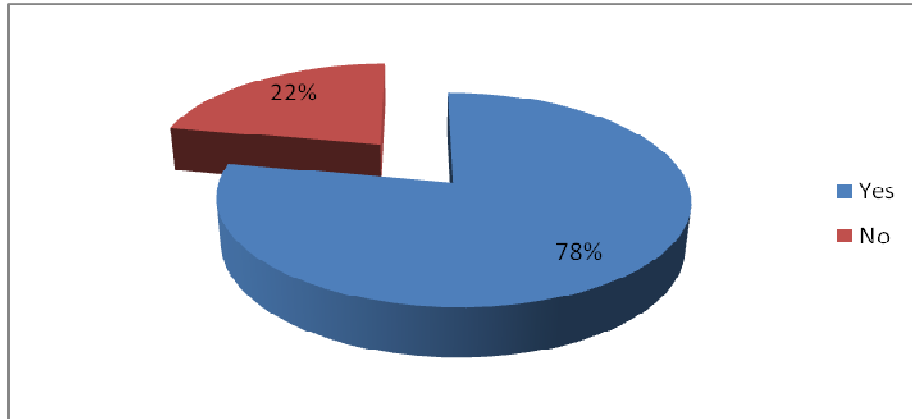
**1. Are you aware of the existence of inheritance laws in Islam? How much did you know about it?**



**Analysis:** It is about 76 percent from total respondent have only little knowledge about Faraid Law. Plus, there is 4 percent does not even know about the existence of the Faraid

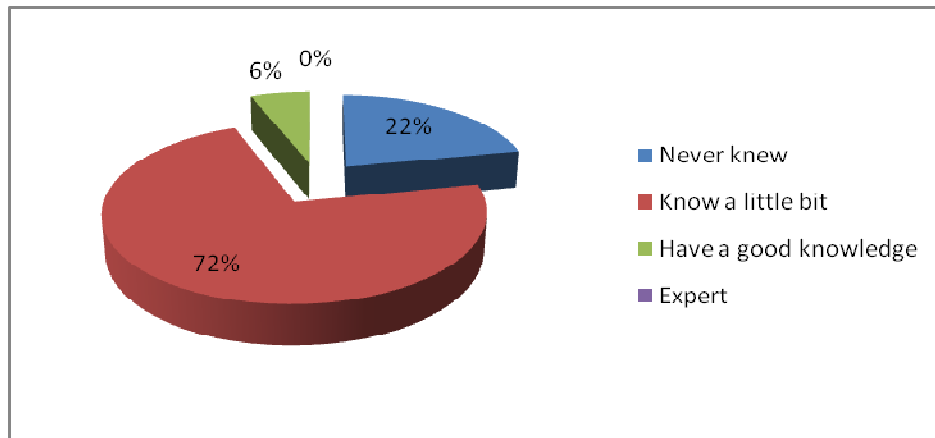
Law in Islam. This shows that the most of the Muslims nowadays does not really understand about the Faraid Law and does not have good knowledge on it.

**2. If a Muslim dies, do you know to whom to turn to for resolving his/her wills and hi/her estate?**



**Analysis:** There is 78 percent know to whom they should refer to resolve about estate distribution matter. There is only 22 percent did not know where to refer if they face the problem. This shows that even there are lots of respondent have only little knowledge on Faraid law, but they know where to refer when they have a problem regarding estate distribution matter. The proposed system will make it easier for the Muslim to refer especially for those who did not know where to refer at all.

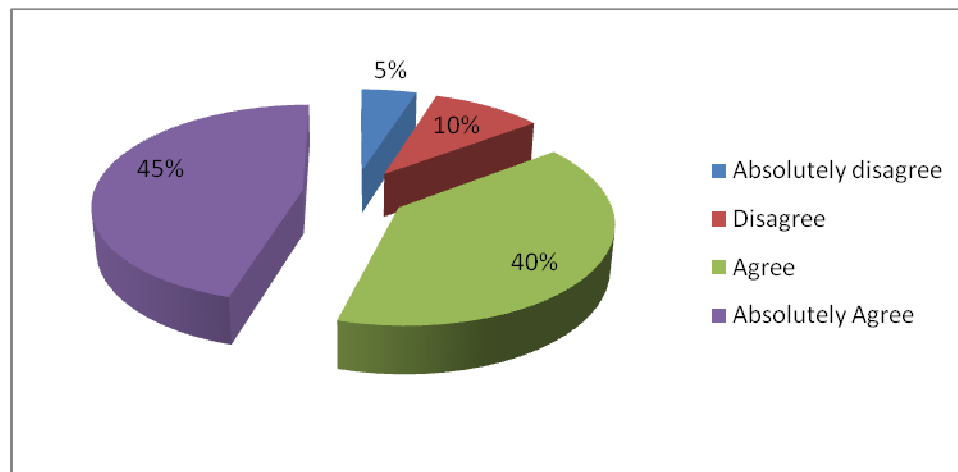
**3. Do you know how to calculate the distribution of the estate under the Faraid Law?**





**Analysis:** The results shows only 6 percent from respondent have a really good knowledge on calculation of distribution of the estate under the Faraid law. That means, most of the respondent does not know and have only a little knowledge in calculate the distribution of the estate under the Faraid law.

**4. Do you agree it is easier to calculate distribution of estate under the Faraid Law with any specific calculator system?**



**Analysis:** There is 85percent from respondent have agreed that it is easier to calculate distribution of estate under the Faraid Law with specific calculator system. This shows that the propose system by the author will be very useful as the respondent also acknowledge that they might need specific calculator system in solving the distribution of estate problem.

Hence, based on this survey, it can be concluded that the current knowledge of Muslim about Faraid law is still in a low level. This survey also shows that it will be very useful if there is a system to help educating Muslims on the Faraid law and also help to solve the complex calculation as referred to the Faraid law.

#### **4.2.2 Interview with Faraid expert**

According to Faraid expert, the Intelligent Faraid Calculator system should get the correct result based on the laws that have been set up in Faraid law. It should be no error.

Below are the details of some laws of Faraid.

<b>Heirs entitled to receive</b>	<b>Portion</b>
<b>Husband</b> Not having any daughter or son OR Not having any daughter or son of son.	<b>Half (1/2)</b>
<b>Daughter</b> Only one AND have no son.	
<b>Daughter of son</b> Only one AND have no son.	
<b>Full sister</b> Full Sister Single with no daughter or son, daughter of son or son of son, father AND no heir that can make she Asabah.	
<b>Consanguine Sister</b> Single with no daughter or son, daughter of son or son of son, father AND no heir that can made she Asabah.	

**Table 4.1: Heirs entitled to receive Faraid portion according to the rule (1/2)**

<b>Heirs entitled to receive</b>	<b>Portion</b>
<p><b>Mother</b></p> <p>Have no son or daughter OR son or daughter of son OR 2 or more full/consanguine/uterine brother or sister</p>	<b>Third 1/3</b>
<p><b>Mother</b></p> <p>Have father with husband or wife</p>	
<p><b>Uterine Sister and Brother</b></p> <p>One or more with no father, father of father and no son or son of son</p>	

**Table 4.2: Heirs entitled to receive Faraid portion according to the rule (1/3)**

<b>Heirs entitled to receive</b>	<b>Portion</b>
<p><b>Husband</b></p> <p>Having daughter or son OR Having daughter or son of son</p>	<b>Fourth 1/4</b>
<p><b>Wife</b></p> <p>Not having any daughter or son OR Not having any daughter or son of son</p>	

**Table 4.3 : Heirs entitled to receive Faraid portion according to the rule (1/4)**

Heirs entitled to receive	Portion
<p><b>Daughter</b></p> <p>2 or more AND have no son</p>	<p><b>Two-Thirds (2/3)</b></p>
<p><b>Daughter of Son</b></p> <p>2 or more AND have no son</p>	
<p><b>Full Sister</b></p> <p>Have 2 or more with no daughter or son, daughter of son or son of son, father AND no heir that can made she Asabah</p>	
<p><b>Consanguine Sister</b></p> <p>Have 2 or more with no daughter or son, daughter of son or son of son, father AND no heir that can made she Asabah</p>	

**Table 4.4 : Heirs entitled to receive Faraid portion according to the rule (2/3)**

<b>Heirs entitled to receive</b>	<b>Portion</b>
<b>Daughter of Son</b> 2 or more with one daughter	<b>Sixth (1/6)</b>
<b>Mother</b> Have son or daughter OR son or daughter of son OR 2 or more full/consanguine/uterine brother or sister	
<b>Father</b> Have son OR son of son Have daughter OR daughter of son	
<b>Father of father</b> Have son OR son of son Have daughter OR daughter	

**Table 4.5: Heirs entitled to receive Faraid portion according to the rule (1/6)**

<b>Heirs entitled to receive</b>	<b>portion</b>
<b>Wife</b> Having daughter or son OR Having daughter or son of son	<b>Eighth (1/8)</b>

**Table 4.6: Heirs entitled to receive Faraid portion according to the rule (1/8)**

### **4.3 Project Development**

In this part, the author will discuss the results of the developed system. The author began to develop the system by designing the main interface and main function of the systems.

Hence, the author has decided that the main functions that will be supported by the system are:

#### 1) Introduction to Faraid

In this section, the author decided to give clear view to the user who is still new with the faraid law. The section will give the definition on faraid system and also the list of heir that entitled to the wealth.

There will be also a stated portion that can be received by the heirs based on the Al-Quran.

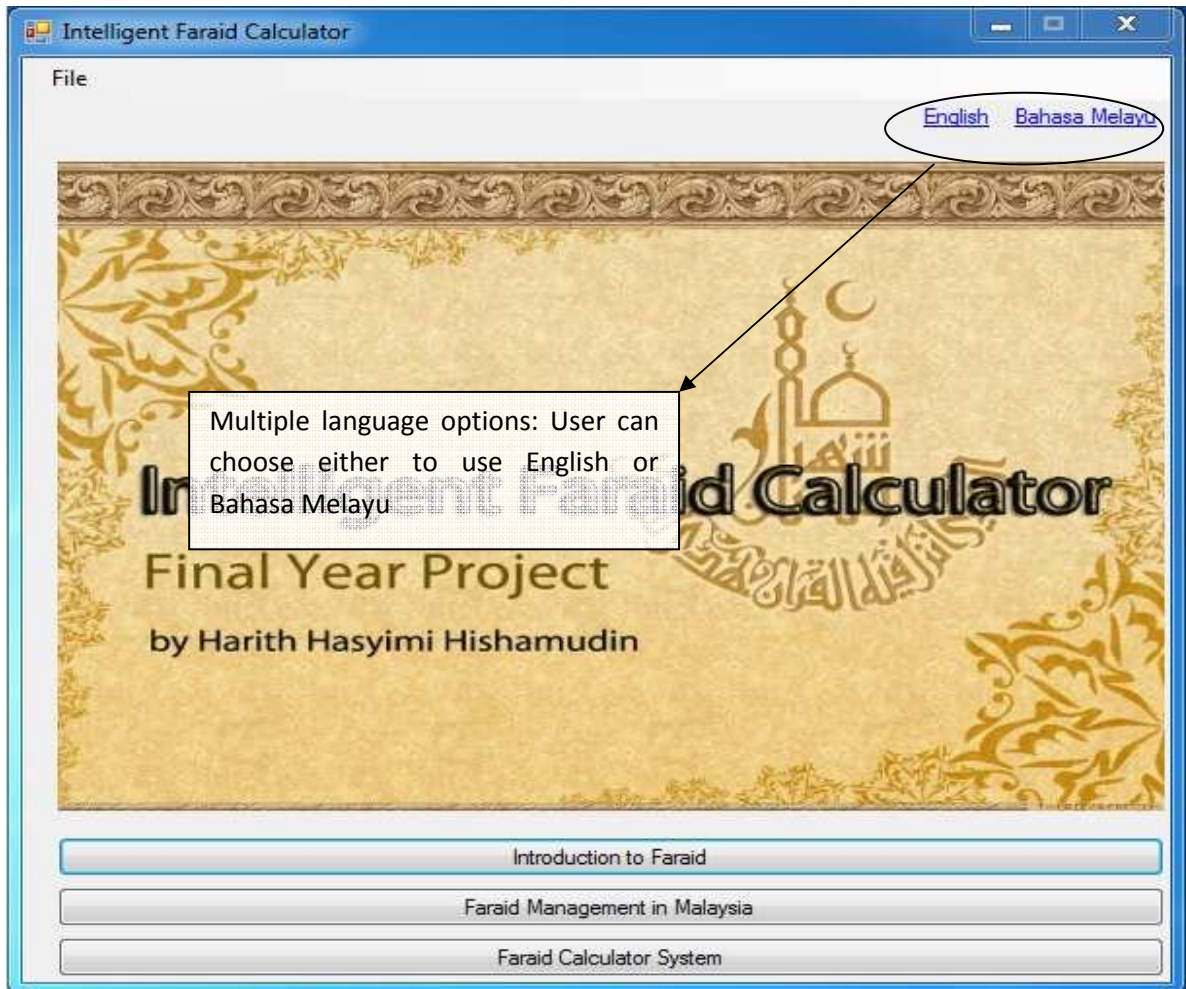
#### 2) Faraid Management in Malaysia

This section will guide the user on how the faraid law being implemented in Malaysia. On the other hand, it will also explain the step need to be taken if one of their family members died. It gives detailed explanation on how the process is happened after the family members died.

#### 3) Faraid Calculator System

This is the most important section where the user will key in the deceased data including the amount of wealth and all the heirs that still alive in order to know the portion entitled to each of the heirs. To know the details on how this section will work, refer to the flowchart in picture 4.2.

Other than that, the system will also have multiple language option which is in Malay and English. Hence the user will choose the language that they feel easy to understand.



**Figure 4.1: Main Page of the system**

If we can refer to the main page of the system, there are three (3) buttons being provided that linked the system directly to the functions provided by the systems. On the right top side of the main page also placed the multiple language option. The system is designed very simple to ensure that the user can understand how the systems work easily. Then, if we click 'Introduction to Faraid' button, the introduction to faraid page will appear. Below is the example of the page:

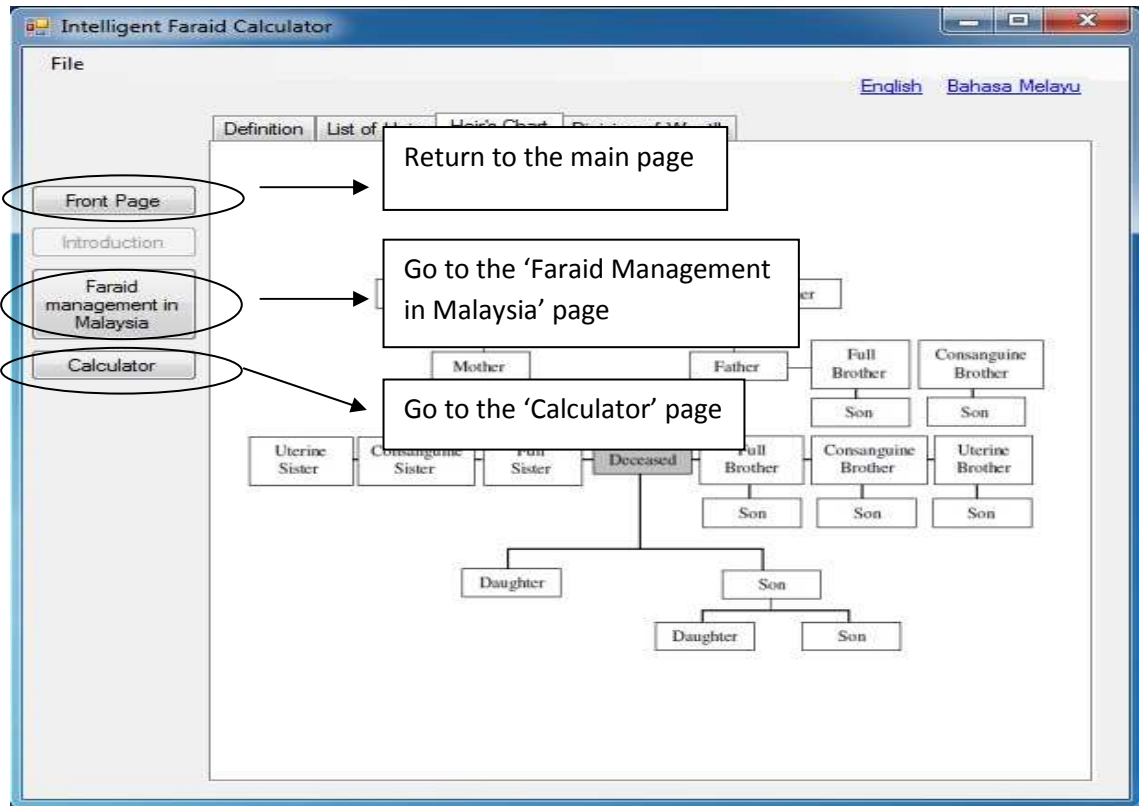


Figure 4.2: 'Introduction to Faraid' page

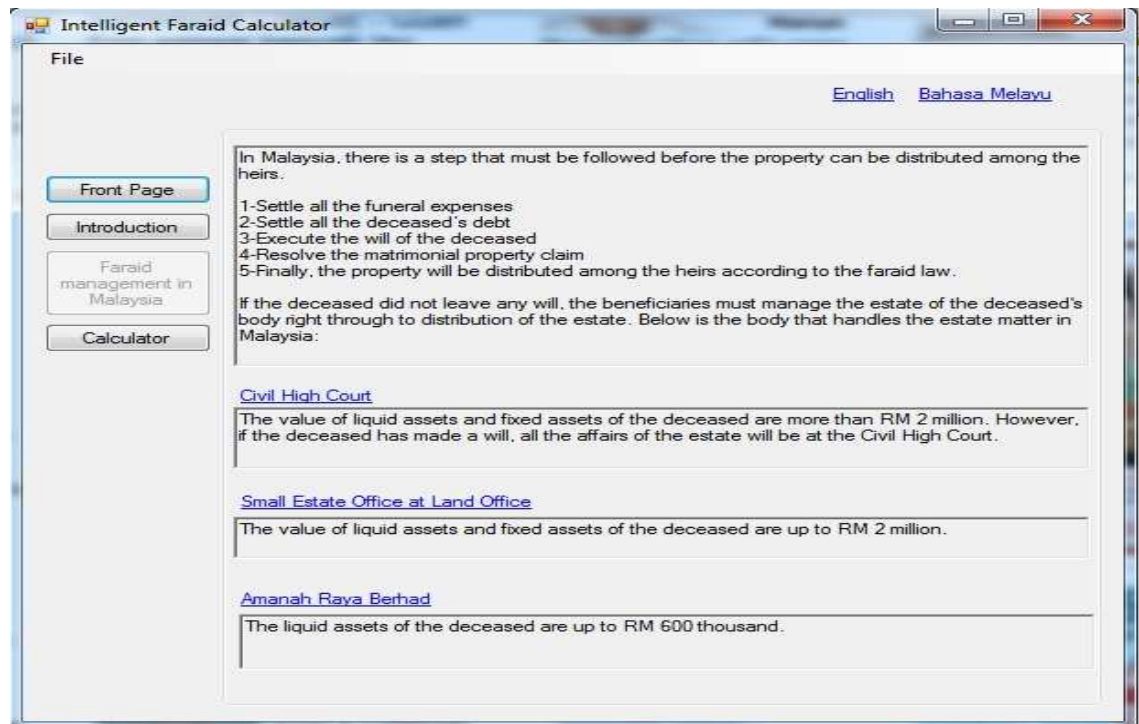
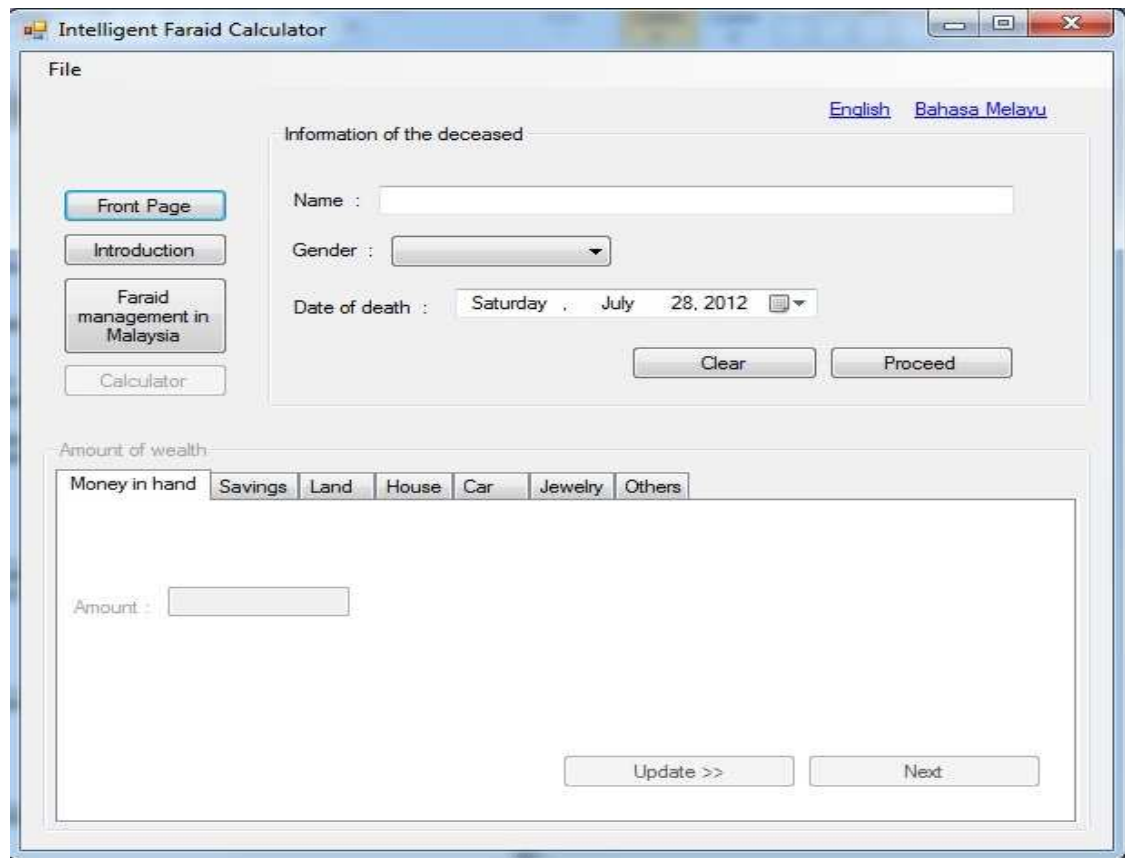


Figure 4.3: 'Faraid Management in Malaysia' page





**Figure 4.4: Calculator page**

### *The Conceptual Design*

The most important section in the program is on calculator section. These section covers almost 70 percent of the overall systems as the system is designed to improve the current calculation system that just only show the portion of the wealth that being received by the heirs. The flowchart below shows the designation on how the system will work or in the technical term is the conceptual design.

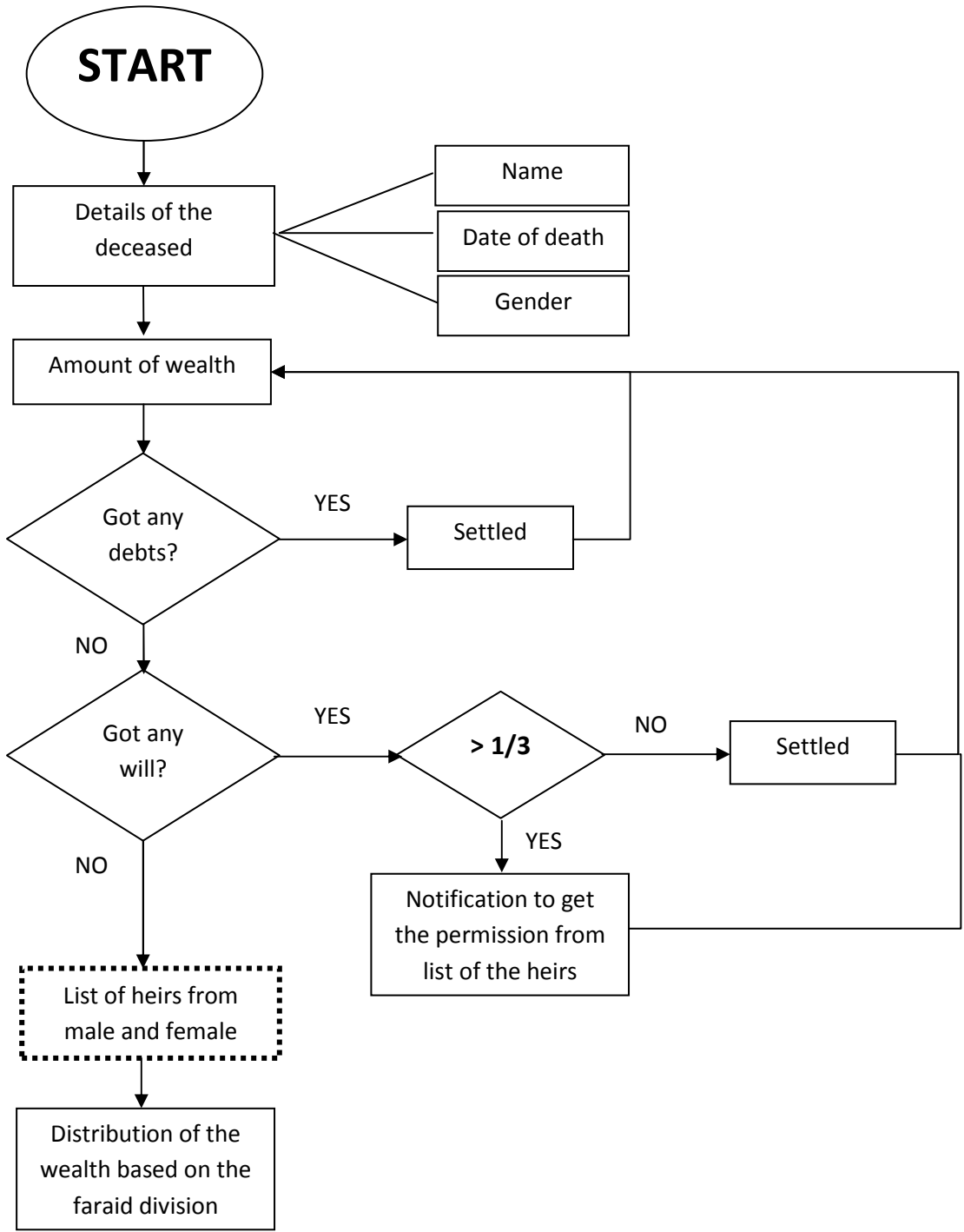
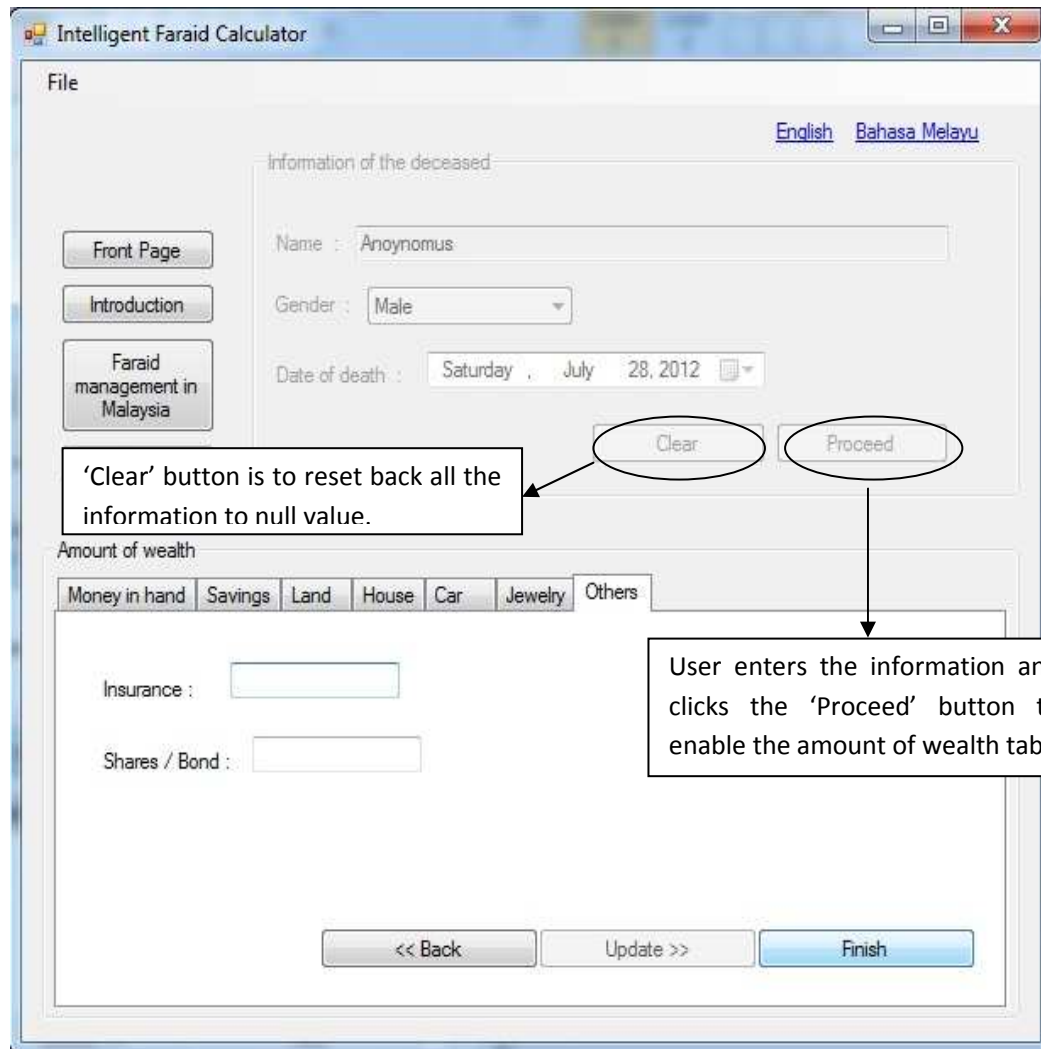


Figure 4.5: Flowchart for the calculation process

Based on the flowchart above, after the user press the 'Faraid Calculator System' button, user will be forward directly to the new windows where user need to enter the deceased name, date of death and also the sex of the deceased.



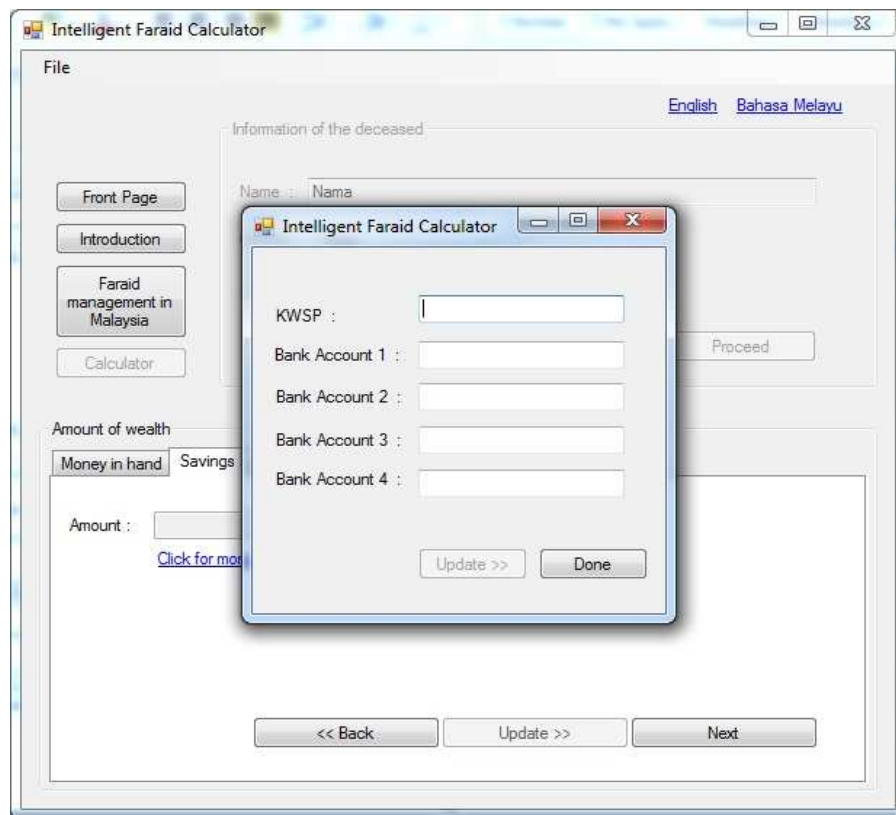
If user did not enter any name and click button proceed. The message box that contains instruction to enter name will pop out. Below is the example:



Then after filling up all the details, the user need to enter the amount of wealth that can be distributed form the deceased's wealth. The wealth that can be distributed, are:

- 1) Money
- 2) Savings / KWSP
- 3) Land (including house on the land)
- 4) House (apartment)
- 5) Car
- 6) Jewelry
- 7) Shares/ Bond / Dividend
- 8) Insurance

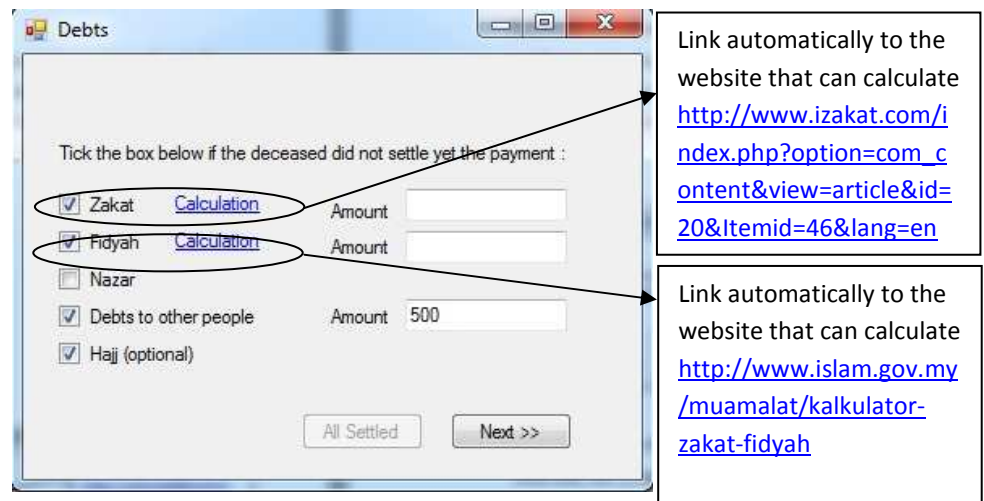
It is important for the user to enter the right data as the expected outcome will be based on the input given by the user in the beginning. The system then will process on how the wealth should be distributed among the entitled heirs.



**Figure 4.6: Page for entering wealth data**

Then, after the system gets the amount of wealth of the deceased, the system will ask for the debts of the deceased if any. If the deceased got any debts, the system will automatically deduct the debts will the amount of wealth of the deceased. Hence, there will be new amount of wealth that can be distributed. Here are the lists of debts that need to be paid on behalf of the deceased:

- 1) Zakat
- 2) Nazar
- 3) Fidyah
- 4) Debts to other people
- 5) Hajj (Optional)

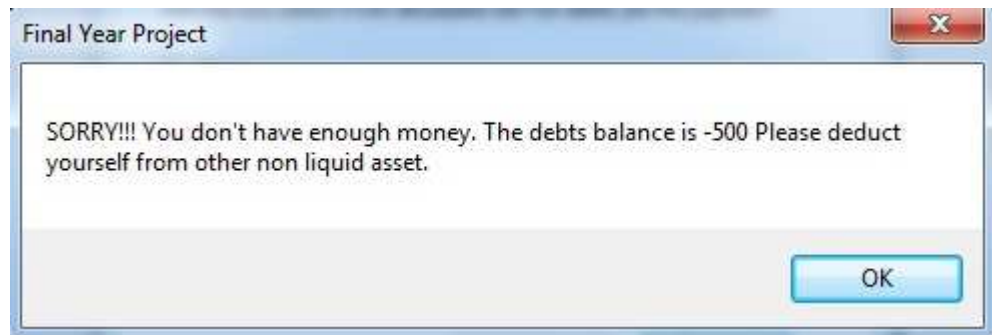


**Figure 4.7: 'Debts' page**

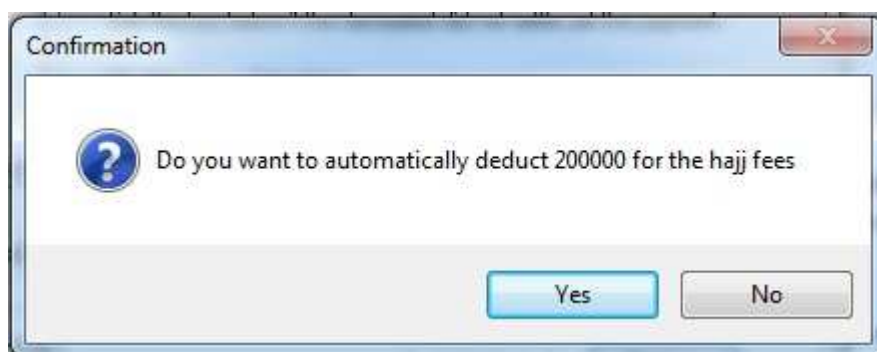
If there is any debt, the amount will be deducted automatically from the deceased wealth.



However, if the amount of debts is greater than amount of money and savings, the notification for the user to change the deceased asset to money will pop out and the system will ask the user to deduct the debts balance by own self. Below is the example of the message that being popped out.



If you click to the hajj option just like the example in figure 4.7, the system will ask you whether you want to deduct automatically the hajj fees or not as the example message below. If you click yes, the system will automatically deduct hajj fees from your wealth amount based on the amount that you have set before.

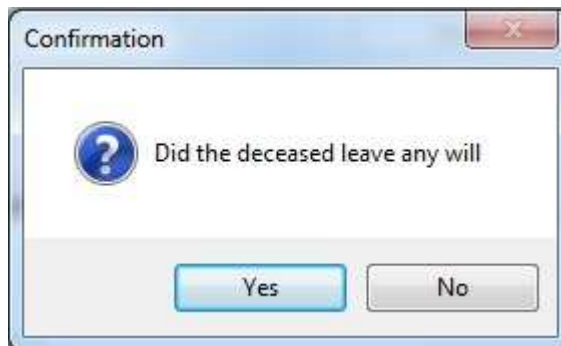


On the example message, the hajj fee has been set up to RM 20,000. If the user wants to change the hajj fee, the user can go the menu in the faraid system and update the new amount of the hajj fee based on the current rate. Please refer to the next figure for the page of updating hajj fee.



**Figure 4.8: 'Hajj Amount Update' page**

If the user enter the new hajj fees and enter the update button, the current hajj fees will be updated into database. After that, the system will asks the user whether the deceased has left any will before he died.



If the deceased has left will, the user of the system will be asked to deduct all the deceased wealth from the total amount of wealth before the system can proceed to the next step. If no, the system will skip the process and go directly to the 'List of heirs' page.

Last but not least, the system will ask the user to enter the list of heirs. The heir that being entered must alive after the deceased has been dead. If one of the heirs died after the death of the deceased, the heir that died still entitled to the wealth of the deceased and should be included in the list of the heirs.

Intelligent Faraid Calculator

Name: anoynamous

Gender: Male

Husband: 0

Wife: 0

Father: 0

Father of Father: 0

Son: 0

Daughter: 0

Mother: 0

Mather of Mother: 0

Mather of Father: 0

Son of Son: 0

Daughter of Son: 0

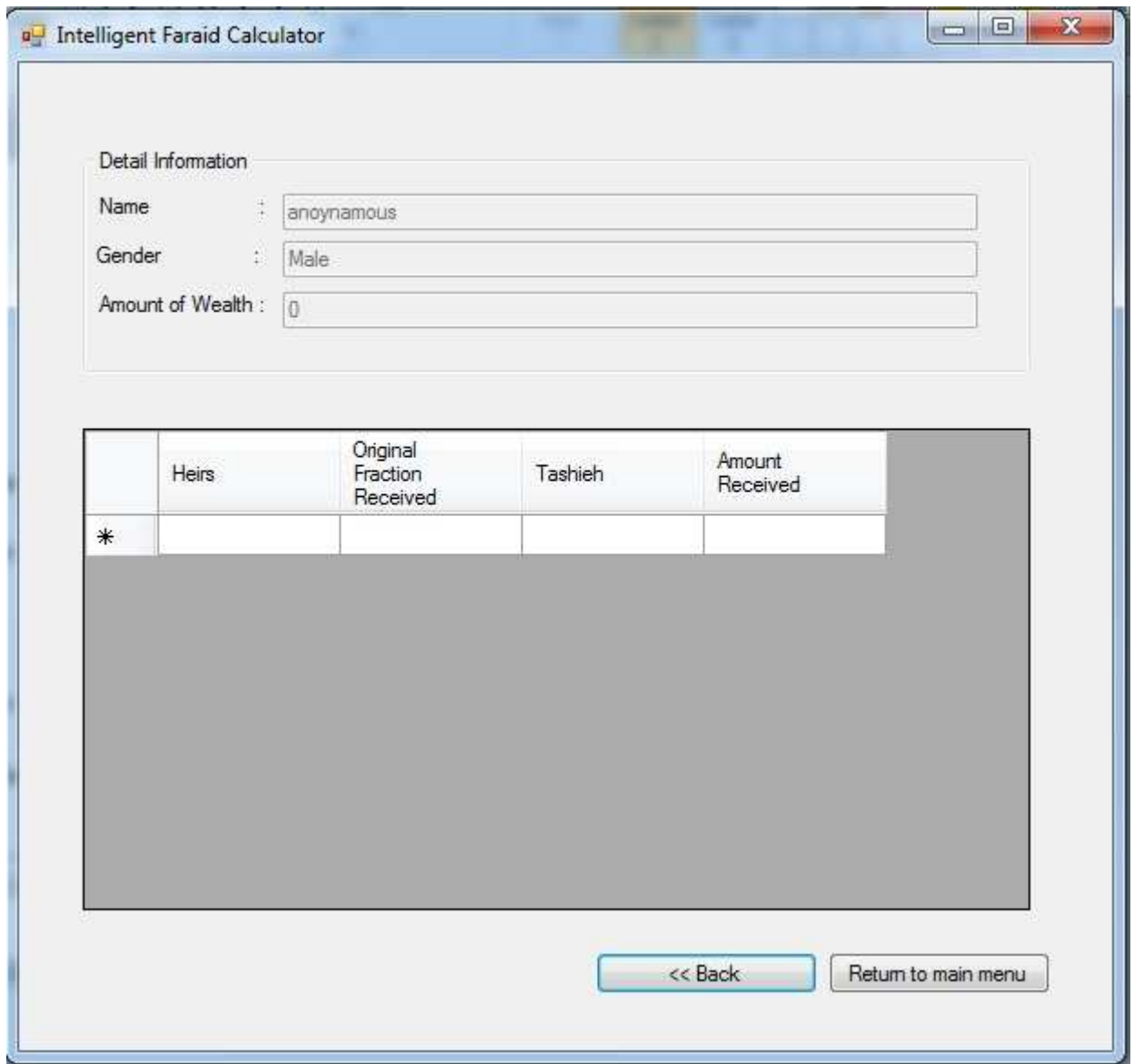
Son of Son of Son: 0

<< Back      Calculate

**Figure 4.9: Page for entering list of heirs' data**

Then, after the user click 'Calculate button, the system will automatically give out the results. The results will be more details as the heirs know exactly on how much that they will get from the wealth.





**Figure 4.10: Results**

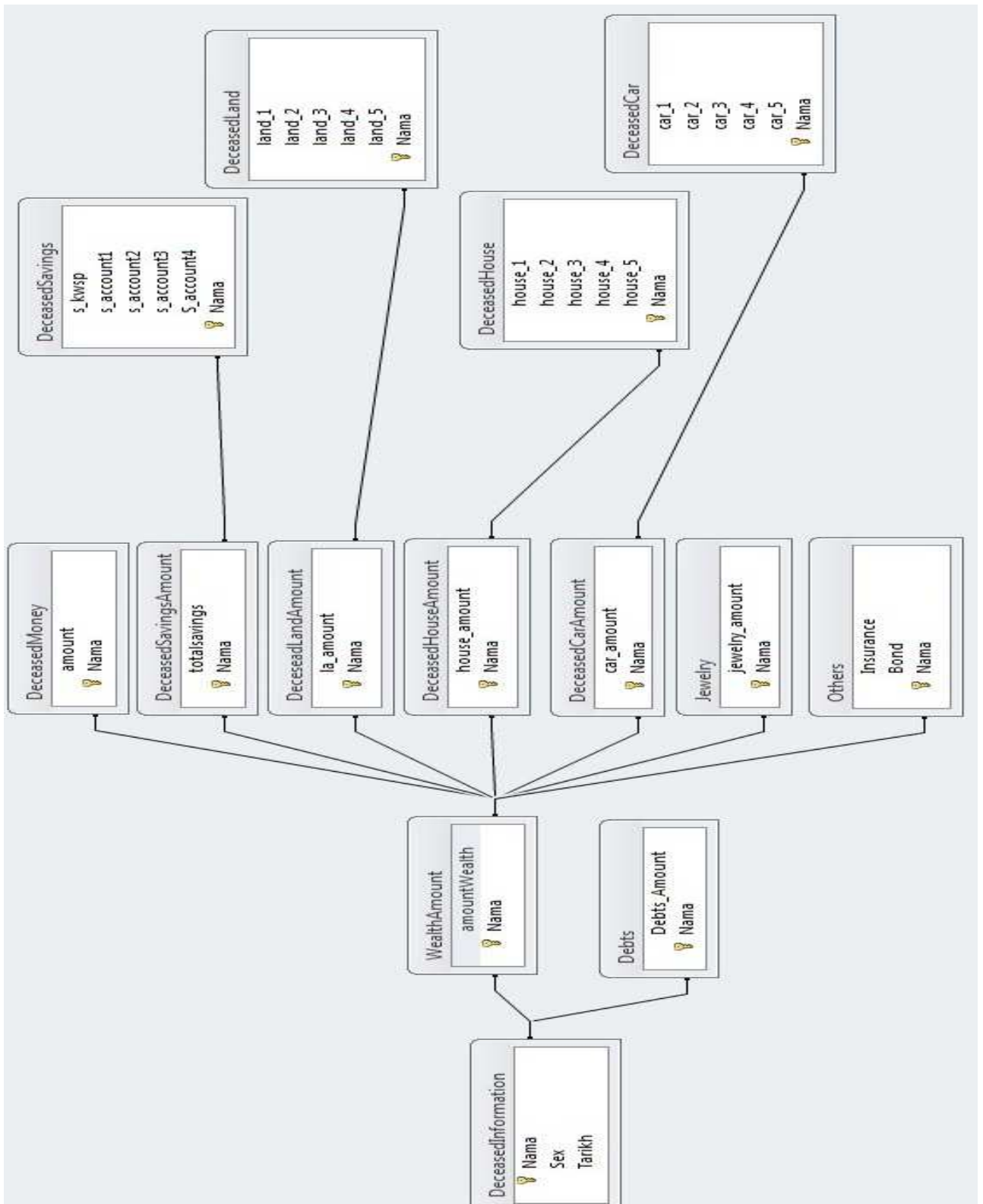


Figure 4.11: Database relationships

## CHAPTER 5

### CONCLUSIONS & RECOMMENDATIONS

#### 5.1 Conclusions

The Intelligent Faraid Calculator System is an alternative system that can be used by Muslim to learn about Islamic Inheritance Law or known as Faraid Law. Any Muslim, worldwide can easily compute his or her portion of the wealth left behind by the decease according to the rules of Faraid in Islam using the propose system. This online calculation system can provide the user to allocate the wealth to all the users and to those, who have rights or entitled to receive their portion from the wealth.

As a conclusion, the expert system for Islamic Inheritance Laws is hoped to be able to solve the problems that have been discussed earlier because it has the functionalities according to the objectives of the system development. Hence, it is hopeful that such a system leads to call for wider use of expert systems in the field of Islamic Jurisprudence.

Other than that, with the existence of Intelligent Faraid Calculator system, it will become a great platform to elevate this technology and expand its uses in Muslims world. It could possibly become the platform for the birth of the new other Islamic based technology improvement.

Nonetheless, in order to achieve those goals and to implement this technology in the Muslim's world, first, a study on the Muslims' acceptance rate on both these technology need to be carried out. The study is to be carried out in Muslim sensitivity context. It is also importance to refer to the Muslims scholar as well as following the Islamic rules.

## 5.2 Recommendation

Below are the recommendations for the future works:

- 1- The system can be adapted to other branches of Islam such as Zakat, and recurring phenomenon to use expert systems in field of Islam, more work is needed in this direction
- 2- Have multiple and different system with a solution based on four schools of thought which Muslim can refer to the system to get more knowledge of experts regarding all the rules for Faraid in four schools of thought (*Almathaheb*).

## REFERENCES

### Books:

1. Hassan, A. B., 1924. *20 Asas Kefahaman Islam*, Pustaka Fajar.
2. Halim, W. A., 2008. *Pengurusan dan Pembahagian Harta Pusaka*, Dewan Bahasa dan Pustaka Kuala Lumpur

### Newspaper:

1. Saruji A., 2011. *RM 42 Bilion Harta Dibeku*, Berita Harian.

### Websites:

1. USM Math, 2012. *Sistem Maklumat Faraid*. [online]. Available at: <<http://maths.usm.my/faraid/msl/default.html>> [Accessed 30 January 2012].
2. Hasnul H. A., 2010. *Tuntutan Fardhu Ain dan Fardhu Kifayah* [online]. Available at: <<http://hasnulhadiahmad.blogspot.com/2010/06/tuntutan-fardhu-ain-dan-fardhu-kifayah.html>> [Accessed 12 February 2012].
3. Ahmad A. F., 2009. *Pengenalan Ilmu Faraid* [online]. Available at: <<http://fiqh-am.blogspot.com/2009/07/pengenalan-ilmu-faraid.html>> [Accessed 20 February 2012].
4. Mohamad F. I., 2011. *Memahami Sistem Pembahagian Harta Pusaka di Malaysia*[online]. Available at: <<http://www.ideafaizul.com/idea/pengagihan-harta/rm-42-bilion-untuk-tersayang-dibeku/>> [Accessed 20 February 2012].
5. Purcell, J. E., n.d. *Comparison of Software Development Lifecycle Methodologies*, [online] Global Information Assurance Certification Available at: <<http://www.giac.org/cissp-papers/217.pdf>> [Accessed 23 February 2012].

## **APPENDIXES**

(Please refer to the next page)

	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4
<b>Planning and Data Gathering</b>																				
Research																				
Preparing proposal																				
Preparing Gaant Chart																				
<b>Analysis Information</b>																				
Interview with Islamic Inheritance Law expert																				
Preparing Extended Proposal																				
Survey																				
<b>Design</b>																				
Getting the software needed																				
GUI design																				
Physical basic design																				
<b>Prototype</b>																				
1st Prototype																				
Getting feedback from the expert																				
Ongoing prototype																				
Final Testing																				
Implementation																				

**Gaant Chart**

This survey is made to study the awareness of Muslim about the distribution of the estate in Malaysia.

**\* Required**

**Are you aware of the existence of inheritance laws in Islam? How much did you know about it? \***

*Islamic Inheritance Law also known as Faraid Law*

- Never knew
- Know a little bit
- Have a good knowledge
- Expert

**If a Muslim dies, do you know to whom to turn to for resolving his/her wills and hi/her estate?**

- Yes
- No

**Do you know how to calculate the distribution of the estate under the Faraid Law? \***

- Never knew
- Know a little bit
- Have a good knowledge
- Expert

**Do you agree it is easier to calculate distribution of estate under the Faraid Law with any specific calculator system? \***

- Absolutely disagree
- Disagree
- Agree
- Absolutely Agree

## Survey Question



## Intelligent Faraid Calculator System Snapshot (Malay version)



