

Mutabaah Tracking System

by

Ainunul Khalilah Binti M. Akhir (13019)

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

JANUARY 2013

Universiti Teknologi PETRONAS
Bandar Seri Iskandar
31750 Tronoh
Perak DarulRidzuan

CERTIFICATION OF APPROVAL

Mutaabaah Tracking System

By

Ainunul Khalilah Binti Mat Akhir

A project dissertation submitted to the
Business Information System Programme
Universiti Teknologi PETRONAS
in partial fulfilment of the requirement for the
BACHELOR OF TECHNOLOGY (Hons)
(BUSINESS INFORMATION SYSTEM)

Approved by,

(Ms. Ainol Rahmah Shazi Binti Sharaani)

UNIVERSITI TEKNOLOGI PETRONAS

TRONOH, PERAK

January 2013

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.

AINUNUL KHALILAH BINTI MAT AKHIR

ABSTRACT

Mutabaah Tracking System is a mobile based application, proposed to build on Android platform. Mutabaah is always being referred to Mutabaah ‘amal. A well known scholar states that a lot of people who become Muslims are due to hobby or born by their parents who already subscribes to Islam. Due to this, they do not understand the meaning of the submission. The main objective of this application is to assist Muslims in monitoring their ‘ibadah and for self evaluation to take place. The author hopes that by proposing this project, awareness on the importance of ‘ibadah among Muslims will be improved indirectly. The author is also trying to improve they conventional way of handling mutabaah, which is jotting on paper, as it has 3 major drawbacks such as the tedious effort of jotting, inconsistent manner of jotting due to forgetfulness and loss of records. The scope of this study are to understand and analyze the current way of handling mutabaah, analyze the best user interface design for the system and analyze the current available apps serving the same purpose. This application is anticipated to be relevant to all Muslims due to the reason of human creation itself where stated by God in Surah Az-Zariyat, verse 56; “*And I have created Jinn and men only to worship Me*”(cont.). Another scholar gives examples that that there is no meal, drinks, sleep, awake, sit, stand, walk, talk, or silence unless they are regards as ‘ibadah in this life if it is being performed only for Allah’s blessings. The Prophet (P.B.U.H) once said that “*prayer is the core of ‘ibadah*”. Iman is not static, as what The Prophet (P.B.U.H) mentions; “it increases and decreases with deeds”. By having this application, ‘ibadah performed can be monitored for muhasabah to be in place. The author closely refers this project to Rapid Application Development model, specifically under Prototyping due to RAD ability to adjust system SDLC phases to get some part of system been develop quickly. The author applies observation, interview and questionnaire survey activities during project data gathering. User’s feedback obtained also shows that this kind of application is very helpful for them. At the end of this project, the author has finish developing the application with few features. It also hoped that this project would initiate more interests in the area of ‘ibadah evaluation application among other developer due to lack of application availability on this.

ACKNOWLEDGEMENTS

First and foremost, my deepest gratitude goes to Allah, The Almighty for giving me the permission, opportunity and blessings to complete this project till the end.

In addition, I would like to thank Miss Ainol Rahmah Shazi Binti Sharaani, my Final Year Project Supervisor, for her patient guidance, enthusiastic encouragement and useful critiques during the journey of accomplishing this project. The advice and help that she offers, critique, guide me a lot. It is a great honor to have such a supportive supervisor. I would also like to thank Ustaz Hamid bin Hassan and Ustaz Abdur Rahman bin Mohd Amin for the willingness in giving side guidance on the writing of this project. I would also like to extend my gratitude and thanks to my best friend, Siti Aquiyah Binti Sabri for her continuous support and helps in finishing this report writing.

Lastly, I thank my parents, brothers, sisters and friends for their constant support and encouragement throughout this report progress.

TABLE OF CONTENTS

ABSTRACT	iii
ACKNOWLEDGEMENTS	iv
CHAPTER 1: INTRODUCTION	1
1.1 Background of study	1
1.2 Problem Statement	3
1.3 Significant of the Project	4
1.4 Objectives and Scope of study	6
1.5 Relevancy of the Project	6
1.6 Feasibility of the Project within the Scope and Time frame	6
CHAPTER 2: LITERATURE REVIEW	8
2.1 What is Mutabaah?	8
2.2 Absolute meaning of ‘ibadah (acts of devotion)	9
2.3 Purpose of life	10
2.4 Ups and down in spiritual states	11
2.5 Why electronic solution?	12
2.6 Why Android?	13
CHAPTER 3: METHODOLOG	15
3.1 Planning and data gathering	16
3.1.1 Data gathering: Observation	17
3.1.2 Data gathering: Interview	20
3.1.3 Data gathering: Survey	20
3.2 Gantt Chart	21
3.3 Analysis	22
3.3.1 Analysis: Electronic Solution Proposed	22
3.3.2 Analysis: Tools and software required	22
3.3.3 Analysis: Proposed Division of Checklists	23
3.4 Proposed Design	27
3.5 Implementation	31
3.5.1 Product Features and Functionality	33
CHAPTER 4: RESULTS AND DISCUSSIONS	36
4.1 Discussions on Survey Question	36
4.1.1 The word mutabaah	36
4.1.2 Keep track of ‘Ibadah	37
4.1.3 The application helps to raise awareness on ‘ibadah	38
4.1.4 Fardh <i>salah</i> reminder	39
4.2 Prototype Testing	40
CHAPTER 5: CONCLUSION & RECOMMENDATION	41
REFERENCES	42
APPENDICES.	44

LIST OF FIGURES

Figure 2.6.1: Worldwide Operating System Market Share (Q4) of 2012	.	.	.	.	13
Figure 2.6.2: Malaysia Operating System Market Share (Q2) of 2012	.	.	.	.	14
Figure 3: Standard Prototyping Methodology phases	.	.	.	.	15
Figure 3.1.1(i): ‘Ibadah Evaluation Application Icon	.	.	.	.	17
Figure 3.1.1(ii): Checklists’ screenshots	.	.	.	.	18
Figure 3.1.1(iii): Daily achievement’s screenshots	.	.	.	.	19
Figure 3.4.1: First version of main page	.	.	.	.	27
Figure 3.4.2: Checklists’ button	.	.	.	.	28
Figure 3.4.3: Set Target button, View tab	.	.	.	.	28
Figure 3.4.4: Set target button, Edit tab	.	.	.	.	29
Figure 3.4.5: Performance’s button	.	.	.	.	29
Figure 3.4.6: Twitter user interface design	.	.	.	.	30
Figure 3.5(i): Flow Chart for Mutabaah Tracking Application	.	.	.	.	31
Figure 3.5(ii): Mutabaah Application’s Activity Diagram	.	.	.	.	32
Figure 3.5.1(i): 1 st Prototype Main Page	.	.	.	.	33
Figure 3.5.1(ii): 1 st Prototype Checklists button	.	.	.	.	33
Figure 3.5.1(iii): 2 nd Prototype, Set Target button	.	.	.	.	34
Figure 3.5.1(iv): 2 nd Prototype, Checklists button	.	.	.	.	35
Figure 4.1.1: Respondents familiarization with term mutabaah	.	.	.	.	36
Figure 4.1.2: Respondents’ percentage of tracking ‘ibadah	.	.	.	.	37
Figure 4.1.3: Mobile application to track ‘ibadah is helpful to raise importance of ‘ibadah	.	.	.	.	38
Figure 4.1.4: Fardh <i>Salah</i> reminder	.	.	.	.	39

LIST OF TABLES

Table 3.2: Gantt Chart 21

Table 4.2: Comments and suggestions from users 40

CHAPTER 1

INTRODUCTION

1.1 Background of study

Islam constitutes of two basic complementary concepts which are "ايمان" (iman/faith) and "عمال" ('amal/actions), as mentioned by Rahman (2007, p.1). Rahman continues, iman if not supported by actions is unreliable while the other way around is meaningless and irrational. The integration of both elements is essential to attain success in this world and the Hereafter. A man who poses faith will lead him to a life of complete obedience and submission to the Will of God. That is what Muslims are. No person can become a true Muslim without iman, the seed that blossoms the beauty of Islam. The relation of iman and Islam is analogized as seeds and tree (Al-Maududi, 2006, p.32). Yakan (2008, p.46) support this argument with a hadith;

"Faith is not the ambition and delusion, but faith is what remains in the hearts and proved by actual deeds." (Narrated by al-Daylami)

Mutabaah in the first place highlights the importance of various "عبادة" ('ibadah) in the routine of Muslims. The absolute meaning of 'ibadah will be further discussed in chapter 2. Mutabaah recognizes good deeds that a Muslim does as a practice in his life for the betterment in many aspects. For example, "qiam", reciting Quran, the voluntary charity acts of giving "sadaqah" and many more. Mutabaah has been carried out traditionally in the old days which will be discussed in the further readings.

Tracking system is not a new application to today's community. A lot of things previously been handled without any manual are transformed into a systematic operation. Take for example your diet. A person set his target to achieve drop in body weight by 5kg from his current weight. There must be a set of actions that he should come out with to guide him to achieve what he wanted. For example, he must eat certain amount of cereal during breakfast, not to forget to take lunch and maybe only allocate fruits for dinner as eating at night is not advisable. After some time, say one month, the weight is evaluated whether it is decreasing or increasing, whether it is approaching the target or getting away.

The same way it applies to mutabaah tracking. If our body needs food for energy, Al-Banjari (2011, p.13) says there is also food for the soul. The ultimate target of having this evaluation is for "mardhotillah" (Allah's blessing). In order to achieve this, a person would want to lists few 'ibadah that are recommended for daily practicing as Muslims. After a certain period, all the deeds are assessed. It is essential to practice as the English saying goes 'practice makes perfect'.

Mutabaah Tracking is a mobile-based application that main objective is to assist Muslims in monitoring their 'ibadah and do evaluation. The main reason of this application development is to emphasize on 'ibadah and to act in accordance with the purpose of life which mankind is created for. It is the natural behavior of human to undergo an unstable state of 'iman which results in the idea to monitor 'ibadah for improvements.

According to current handling of Mutabaah tracking as what is being interviewed and observed by the author, the 'amal that one have done will be jotted down on a piece of paper or books or on a personal diary. In addition, there will also be a target set-up by them upfront to meet. Further observation regarding the handling of mutabaah tracking by author is described in the following chapter. Owing to the typical way of doing this, the author has come up with an electronic solution for on mobile phone's tracking application.

1.2 Problem Statement

Yakan (2008, p.5) mention that a lot of people who become Muslims are due to hobby or born by their parents who already subscribes to Islam and due to this, they do not understand the meaning of the submission. Again, as discussed before, Islam teaches their followers to submit towards Allah, proven by the doings, which in this case refer to ‘ibadah. The utmost aspiration of Muslims life has divert from being the servant of Allah whom seeking for *Mardhotillah*, into greediness and only after what offered by *Dunya*. *Dunya* and *Akhirah* if to be compared are far in value as what stated by Yakan (2008, p.103);

“O you who believe! What is the matter with you, that when you are asked to march forth in the Cause of Allah (i.e. Jihad) you cling heavily to the earth? Are you pleased with the life of this world rather than the Hereafter? But little is the enjoyment of the life of this world as compared with the Hereafter.” – (At-Taubah: 38)

The 40th Hadith arranged by Imam Nawawi, as elaborated by Al-Bugha and Misto, translated by Al-Latifi & Noraine (2009) justifies that *Dunya* is a stop for human as if we are a traveler, supported by below hadith of Prophet Muhammad (P.B.U.H.):

On the authority of Abdullah bin Omar, who said: The messenger of Allah took me by the shoulder and said: *"Be in the world as though you were a stranger or a wayfarer."* The son of Omar used to say: *"At evening do not expect (to live till) morning, and at morning do not expect (to live till) evening. Take from your health for your illness and from your life for your death."*

The hadith as elaborated and translated by Al-Latifi & Noraine (2009) justifies that *Dunya* is the bridge towards *Akhirah*. Whatever we encounter, face and live in this world should be taken as form of ‘ibadah to be rewarded in the next life. This explains why tracking ‘ibadah is vital. The conventional way of jotting mutabaah is like how typical works are being done before the evolution of electronics hardware in the old days. The author has interviewed a number of colleagues who are tracking their mutabaah manually to detailed address problem associated. Below are the lacking of the conventional way for ‘ibadah tracking:

i. A tedious effort of jotting down every ‘amal one performed

To every people who intend to see what ‘ibadah they have perform, they need to jot every single thing on the paper. The process of collecting the data itself is such an out-dated process which might not be found interesting to follow for the young generation especially.

ii. Inconsistent manner in jotting due to forgetfulness

Most people are good in planning, however one may not disregard the closest disease of human, forgetfulness. In every single day, there must not be a thing that we do not forget. Sometimes it’s a small, tiny matter, or sometimes it is something that is very important. This forgetful syndrome also infects Muslims on jotting their ‘amal.

iii. Loss of record

Sometimes the record of the mutabaah has been missing, misplaced and this resulted in inability to do muhasabah (self-introspection) on the performance. For review purpose, if the record is incomplete, it is hard to define where one is standing on the performance perspective.

Other than the three main difficulties user face, especially on the forgetfulness part, adding reminders feature might provide good assistance. For example, reminder in fulfilling the daily duties. Further discussion on the product feature and functionalities will be addressed in later chapter.

1.3 Significant of the project

The application proposed is checklists which user uses to tick or mark their daily ‘ibadah and *sunnah* practices. These categories are further discussed in Chapter 2. Tracking the daily ‘ibadah of oneself is very essential to ensure one enlist themselves in the path of making Islam as the way of life. Indirectly, they also uphold the doings of Prophet Muhammad (P.B.U.H) which is a noble thing to practice.

However, the reality that is happening today is Muslims care less in their responsibilities towards Allah. The numbers of people who call themselves as Muslims but not acting like one are increasing nowadays. The term ‘Muslims in

name only' is strange no more. Muslims and 'ibadah should not be separated. However iman is not static. Hence, to track what has been done is appropriate to muhasabah and gains back the spirit to continuously perform the 'amal. Constant doing may teach us how to be disciplined in practicing good values as per told by Islam, the Divine religion.

The Prophet (P.B.U.H) said that "*iman increases and decreases with deeds*". – Al-Hasan Biraima (1998).

Narrated Al-Mughira, The Prophet used to stand (in the prayer) or pray till both his feet or legs swelled. He was asked why (he offered such an unbearable prayer) and he said, "*should I not be a thankful slave.*" (Rawahul Bukhari and Muslim) – An-Nawawi (1999)

Being thankful to God of what we have been given upon must be interpreted into action. The Prophet who is already been promised by Allah to be in Paradise has not forget to proof that he is thankful. Question follows are, are we thankful enough if 'amal is the parameter? Is the current 'amal we perform enough to secure us a place in the paradise? Even though the paradise is already prepared and welcomed for The Prophet, his effort, his 'ibadah to please Allah never become less.

By having this application, user's effort to note down the daily 'amal is anticipated to become easier. This application is important for self-evaluation (muhasabah) to always be in faith and Allah's guidance. How? To do this, one has to check their level of 'amal. This has to be re-evaluated by ourselves. In Islam, faith is not only being accepted through expression and conversation, but need to have proof and followed by actions.

1.4 Objectives and Scope of Study

The key objective of this project is to help Muslims to increase awareness of their 'ibadah achievement. The author also intends to conduct research on the problems

of the conventional way of jotting ‘amal and how this can be improved. During the development phase, the author has had series of improvements with regards to user testing and comments from users. However, there are few limitations that cause the intended satisfactory application features not delivered such as time frame and the authors’ knowledge and skills constraint. The author deliberates this project to call Muslims to get back to the purpose of human creation as discussed in Chapter 2 later.

Scopes of study:

- I. Understand and analyze the current way of handling mutabaah
- II. Analyze the best user interface design for the system
- III. To study the current available apps serving the same purpose

Mutabaah tracking applies to all Muslims who wish to upgrade themselves to become nearer to The Creator, Allah The Almighty by means of improving themselves in their doings and deeds.

1.5 Relevancy of the Project

The application is very relevant to all Muslims. It helps Muslims who would like to take a step ahead in familiarizing themselves with daily activities which could be regard as ‘ibadah. This project is also in accordance to the purpose of human creation, discussed further in Chapter 2.

1.6 Feasibility of the Project within the Scope and Time frame

During the first semester, the author has spent time focusing on the research and documentation. The author has use the intermediary semester to learn on the Android programming using java and also into finalizing the user interface to apply. During the final semester of the author, the core functionality is developed for the first prototype and the author will be committed solely to the application modification until the final version is derived. The author has gone through few

user interface modifications series, in order to arrive at the most user-friendly interface.

At the end of this project, an application with the most user-friendly interface is expected. However, the application might still need further enhancement on the features itself to be able to compete with its available challenger in the Google Play. The author optimist that this project will become the initiator project to upgrade the current handling of mutabaah and to be looked as an effort in bringing the importance of Muslims' 'ibadah in the eye of other developer. This kind of application, according to the author observation is still lack in attention, whereas there is an existing and bigger opportunity market for it.

CHAPTER 2

LITERATURE REVIEW

2.1 What is Mutabaah?

According to the Arabic-English Hippocrene dictionary, the word "متابعه" (mutabaah) originates from the Arabic word "تبع" which means "to follow" (Wortabet & Porter, 1995, p.29). The word "متابعه" (mutabaah) and "محاسبه" (muhasabah) are closely interrelated (Hassan, 2012). This is also supported by Rahman (2013) in an interview conducted. Hamid (2012) added, mutabaah is the act of following while it is happening. Whereas, muhasabah is after the occurrence where one looks back at what he or she has done and takes corrective action. The other word that would describe muhasabah is postmortem. Putting these words in the context, mutabaah is the act of other person or group following a person's 'amal. On the other hand, muhasabah is the act of oneself who looks back into his or her 'amal for any amendments or correction.

This application helps Muslims to be disciplined and familiarize themselves with all the good deeds suggested in the way of Islamic life. It assists users to stay istiqomah in their practices which Siddiqi (2006) says istiqomah means to be straight, to follow the straight path, to remain firm on one's principles. In addition, Mutabaah checklists application also helps people to evaluate oneself (muhasabah). Mutabaah tracking is relevant to apply due to the main point of mankind creation which Allah stated a few times in the Holy Quran.

2.2 Absolute meaning of 'ibadah (acts of devotion)

Rahman (2007, p.64) mentions that the word "عبادة" ('ibadah) means obedience and submission to the will of God. This includes all actions which are performed in

obedience and for what pleasure Allah (Al-Maududi, 2006, p.126). Believing in the Sovereignty of God means to accept and follow his commands. Rahman (2007) says that The Holy Prophet said about the integration of acts and faith: Whoever says that faith is action is in fact referring to word of God.

“And this is the Paradise which you are made to inherit because of the deeds which you used to do”. (Az-Zukhruf : 72) – Rahman (2007)

Al-Maududi (2006) continues to list few examples of acts in which are considered as ‘ibadah in daily routines such as avoiding lies and bad words, instead, talk nicely to human, mix around for business or trade in the market, mingle with family members, relatives, friends for which all are carried out with the law underlined by Allah, that person has undergo his life in the act of devotion. That person’s deeds are called ‘ibadah.

Al-Maududi, supported by Bilal Philips (2003, p.23) added few more examples on other things which are common in the daily life which could be regard as ‘ibadah, if it is being performed only for Allah’s blessings. These are if you do well on the poor, or the oppressed people you help or you feed the hungry, or to pay a visit to people whom are sick. Al-Maududi also states if you involve in field like business, trade or deliver services, and you do with full of trust and truth because you fear Allah, then you work on the halal, and stay away from what is haram, then all your activity is due to worshipping Allah despite all you do is to make a living for yourself.

“All in all, your fear towards Allah in any situation of your life, at all times, in which you make the pleasure of God the focus of your thoughts, you follow His laws, and you ignore all benefits you may get by doing things that displease Allah, you be patient to Allah’s trials, all these are none but ‘ibadah towards Allah, and the journey you go through from the very beginning till end is considered as ‘ibadah.” (Al-Maududi, 2006)

Al-Maududi continues that there is no meal, drinks, sleep, awake, sit, stand, walk, talk, or silence unless they are regards as ‘ibadah in this life. However, there are specific ‘ibadah which has been underlined by Islam as compulsory. Due to these,

it is called the pillars of Islam and all other ‘ibadah mentioned in daily activities above are the building which are made of these pillars (Al-Maududi).

Our Prophet Muhammad (P.B.U.H) has once said: “*prayer is the core of ‘ibadah*”, reported by Anas. – (Rahman, 2007, p.68).

“The real purpose of Islam in declaring ‘ibadah embraces the total life of man is to make Faith play a practical and effective role in reforming human life and in developing in man an attitude of dignified patience and fortitude in the face of hardships and difficulties and in creating in him the urge to strive for the prevalence of good and extirpation of evil. In prayer, man finds the surest and quickest way of obtaining moral and spiritual perfection”. – (Rahman, 2007, p.69)

2.3 Purpose of life

Everything that is being created comes with purposes. People invent car to ease movement and for their transport to go around. Allah The Almighty also create mankind for a purpose which He clearly stated in surah Az-Zariyat, verse 56 (Rahman, 2007, p.65):

"And I have created Jinn and men only to worship Me. I want no sustenance from them, not do I want them to feed Me. Surely, it is Allah, Who is the Provider, The Powerful."

Rahman added, in Surah At- Tawbah, Allah says “*And they have been commanded no more than this: to worship (and serve) Allah, offering Him sincere devotion, being true in faith*”. Allah mentions this in verse 5.

Again, in Surah An-nisa’ verse 1, Allah says “*O Mankind! Reverence (and serve) your Lord, who Created you from a single person, created, of like nature, his mate, and from them scattered countless men and women; reverence (and serve) Allah through whom you demand your mutual rights.*” – Rahman (2007).

There is many more of God saying to convey the purpose of human creation which are stated in the Holy Quran. A man should obey and follow the teachings of His Messengers if he believes in Allah. One cannot just believe in the Sovereignty of God but not accept and follow His Commands.

A'mal (good deeds) can be classified into two categories which are:

- i. Acts of devotion
- ii. Good deeds to men

Through acts of devotion, one fulfills obligations to Allah (Huquq Allah), and through good deeds to men, one fulfills obligations towards his fellow being (Huquq al-'ibad). Iman denotes acceptance of Divine Truth while 'ibadah helps man to act accordingly.

2.4 Ups and down in spiritual states

As normal human, it is hard to maintain the spiritual momentum at a level where one found their selves nearer to The Khuluq (The Creator). 'Iman is like the sea wave which does not know the meaning of steady state. Always has it's up and down. Iman and 'amal is interconnected. Iman without 'amal is like tree without its flower, while life that with no content of 'iman is like a tree with dead root. The question that arise is "how to 'istiqomah' (steadfast) in doing 'amal?". Steadfastness of 'amal and good deeds are very vital in Islam as what reported by the daughter of our beloved Prophet below.

Ai'shah (radhi allahu anha) reported the Messenger of Allah (P.B.U.H) saying: *"The most beloved deeds to Allah are the most constant, even if they were little."* (Bukhari and Muslim) -- (Sabiq, 1898)

The effort of following deeds that we have performed is vital for muhasabah component.

Mutabaah is often being referred to mutabaah 'amal. It is the reflection of our faith that has been interpreted into actions. Why mutabaah is very essential? Mutabaah is all about 'ibadah. As Muslims, we are created to worship Allah and to perform

good deeds to seek for His blessings. This project is proposed mainly to help Muslims to care more in their daily deeds by having the checklists and this may be an effort of those who would like to drive themselves better, day to day and nearer to the *Khaliq* (The Creator).

Peace with God implies complete submission to His Will who is the source of all purity and goodness, and peace with man implies the doing of good to fellowman, and both these ideas are beautifully expressed in the Holy Quran which says:

“Nay, whosoever submits himself completely to Allah and he is the doer of good, shall have his reward from his Lord. No fear shall come upon such, neither shall they grieve”. (Al-Baqarah :113) – Rahman (2007).

2.5 Why electronic solution?

There are many things that have gone electronically-solved since the rapid technology advancement encountered. One of the most being referred to is books and electronic books. The same situation applies here where electronic solution is the choice. Recently, mobile technology has shown rapid growth. In every aspect of our lives, mobile technology is applied. The introduction of smart phones has changed the handset industry from low budget handset devices to high performance mobile devices. Today’s phone is almost everything. It support many purposes such as email, internet browsing, games, multimedia, access to social networking sites like YouTube, Google search, Facebook and more. Smartphones show higher application usage than featured phones. The percentage of people who use their phone for only voice communications has been dropping with more people interested in smart phone and what more it offers. That is why electronic solution is being chosen and to add it up, the author prefers it to be phone-built in rather than build on laptop due to smart phones mobility.

2.6 Why on android?

There are several operating system supporting today’s mobile phones such as Windows, Bada, Symbian, Android, iOS, Blackberry and others. However,

Android is the widely used by people around the globe nowadays. Android emerged at the right time for embedded designs, it offers lots of beneficial things in our self-fulfilling process.

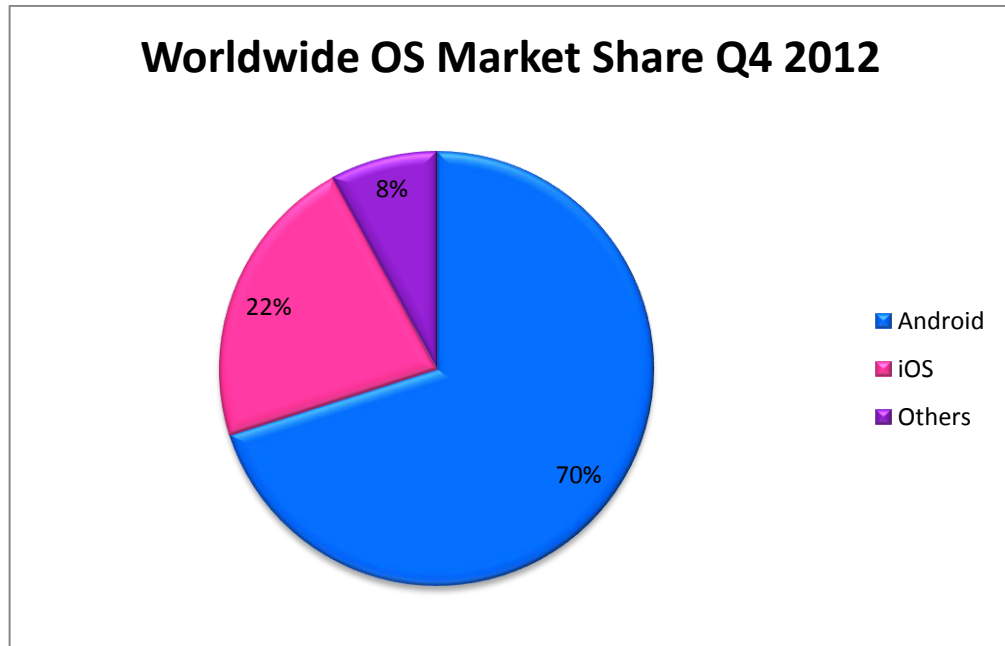


Figure 2.6.1: Worldwide Operating System Market Share (Q4) of 2012

Reed (2013) in his article posted the most recent research made by Strategy Analytics, dated 28 January 2013 showing Android platform now conquer almost 3 quarter of total market share which is 70%, followed by iOS 22%, and others 8%.

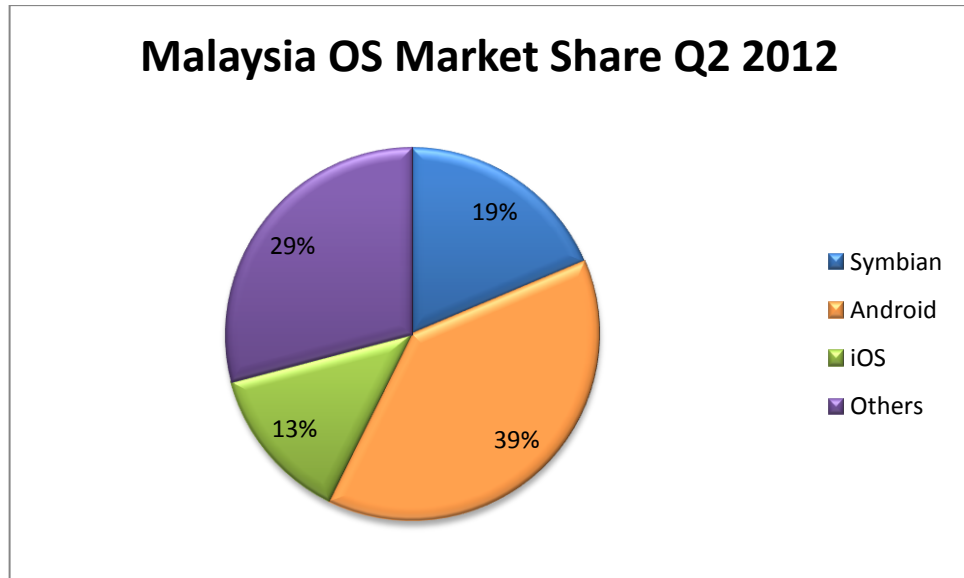


Figure 2.6.2: Malaysia Operating System Market Share (Q2) of 2012

According to Fuzore (2012) with reference to StatCounter Global Stats research of Malaysia latest market share, an increase is seen in android OS which now contributed 39%, next, populated by symbian with 19% and iOS holds 13% of the market share. However, there are 29% which falls into others category which is also a big portion of the overall market share.

Observing the growth of the Android OS market share initially when this project is first selected till now, the author is confident that Android platform is a huge market to serve. In addition, the extra benefits of Android OS have convinced the author to go for Android market for the project. Android is open source software which means the source code is available to users and been distributed at no cost Rogers, Lombardo, Mednieks, & Meike (2009). It is simply free for the core technology and we can drill down into the coding and customizes it according to our requirement. Hence, the author taught that choosing Android is the platform to accomplish this project successfully.

CHAPTER 3

METHODOLOGY

The research methodology that is referenced during this project development falls under Rapid Application Development (RAD) modeling phase, under prototyping. RAD-based development basically tries to adjust the typical System Development Life Cycle (SDLC) phases to have some part of the system, which most likely are the core function of the system to be developed quickly (Dennis, Wixom, & Tegarden, 2005)

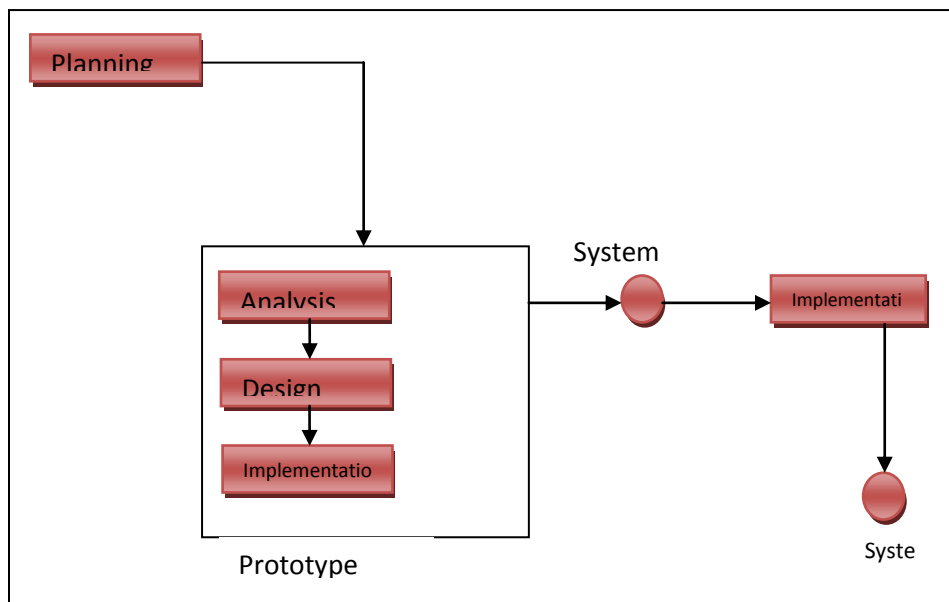


Figure 3: Standard Prototyping Methodology phases

Figure 2 shows the standard of Prototyping approach. During Final Year I (FYP I), what has been completed are all the planning, data gathering activities, and analysis. Designing and first prototype has been completed at the intermediating period

between FYP I and FYP II. In the subsequent phase, which is prototype iterative modification has been done all the way during FYP II completion.

3.1 Planning and Data Gathering

In every system cycle, planning plays an important role. At this phase, all information available which relate to the topic should be gathered to ensure success of project. Following are the steps have been taken by the author as of this writing:

- I. Redefining topic and scope of study.
- II. Existing research paper and writings related to this project are read.
- III. Decide on the tools required.
- IV. Get all the required tools to be installed.
- V. Develop a Gantt chart for proper planning.
- VI. Preparing for data gathering

Data can be obtained from primary or secondary sources. Sekaran (2006) says that primary data refer to the information obtained firsthand by the researcher on the variables of interest for the specific purpose of the study while secondary data refer to information gathered from sources already existing. The approaches chosen by the author in this project for research study are observation, interview and questionnaires survey conduct. Below are some ideas on activities that author has identified during this project initialization (further discussed in below readings):

- I. Interview Ustaz (Experts) on few meanings of Arabic wordings and terms, either than seeking their opinion on project justification.
- II. Interview of the conventional way of collecting and handling mutabaah checklists and user preferences of solution
- III. Survey questions has been prepared and distributed
- IV. Analyze the best design and solution to the problem addressed
- V. Create a flowchart for the application
- VI. The author develop understanding on activities involved in the application and how users interact with the application

3.1.1 Data gathering: Observation

I. Problems faced by classical mutabaah tracking

The author has taken some information from few interviewees. Focal drawback lies in the way of jotting itself where it is considered as old-timers and tiresome. Some other problems identified are those jotting their ‘amal misplace the sheet they jotted. Some of them just do not have the time to jot it somewhere. Other than that, it is also difficult to monitor their performance and achievement as there is no data analyzation. (For further readings, please refer interview transcript in the appendix)

II. Available application on Android market

For many years back, the author has observed there is only 1 existing application that serve the purpose of mutabaah tracking, even until now. It is being developed by an application developer company under the name Badr Interactive.

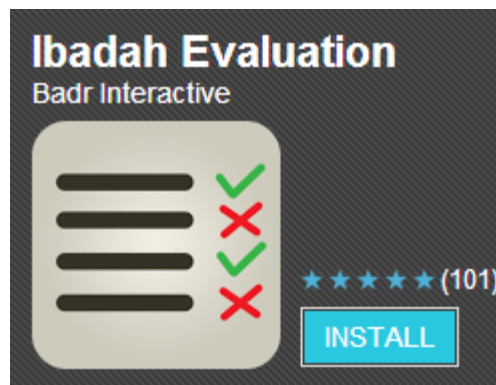


Figure 3.1.1(i): ‘Ibadah Evaluation Application Icon

This sole application has been serving the community for many years with very slow development and fixes even though there are still some. This application has become one of the references for the author in developing the proposed solution to this project. Below are the features and interface of the application taken from the application screenshots and some description according to the authors’ review of the app itself.



Figure 3.1.1(ii): Checklists' screenshots

Figure 3.1.1(ii) shows the everyday's checklists that user need to input. It is in a day-to-day format, with plenty of check boxes for the everyday input and user can navigate to other date by pressing next or previous sign at the upper part of the screen.

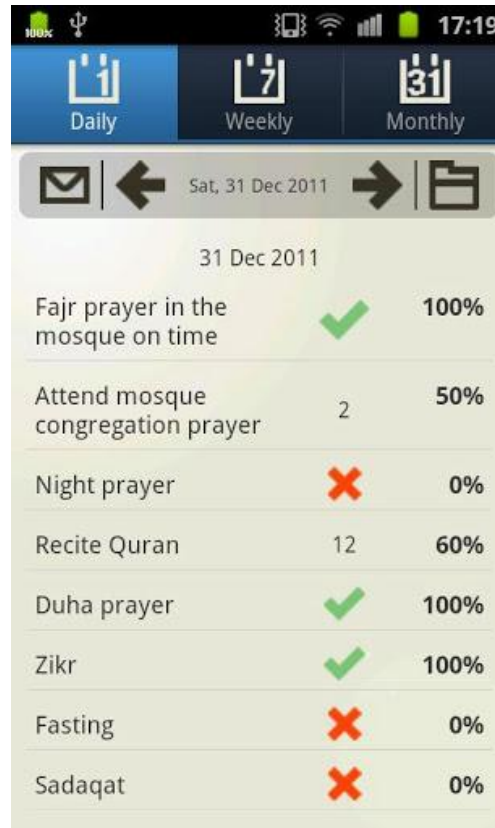


Figure 3.1.1(iii): Daily achievement's screenshots

Figure 3.1.1(iii) shows the performance in a daily basis. It is calculated according to the user's preference on their target set earlier in the process. There are also other preferences on the performance calculation-basis such as weekly basis and monthly basis as per indicated in the label.

However, according to application testing done by the author and from comments drop by at the feedback column in android store, this application is still having trouble to function on many devices. It can only function on certain devices such as Samsung Galaxy Note and Samsung Galaxy S3. Most of the other android Smartphone's fail to get this apps running and keeps crashing. There are bug fixes undergone, by still, the fixes and development rate is quite low and slow.

3.1.2 Data gathering: Interview

During the data gathering phase, the author also experience interviewing scholars (ustaz) and also people whom are applying the concept of mutabaah. The author meets ustaz for a clearer view on the meaning of mutabaah itself and to have an overview about its concept, before proceeding with other research so that the idea the author had is in line with the real concept. Few people are also interviewed to know the current handling of them performing mutabaah tracking. This is done for the author to capture deep understanding on the handling. Both interview transcript with ustaz and others are attached in the appendix.

3.1.3 Data gathering: Survey

A questionnaire survey is being conducted to get user's opinion and feedback regarding the relevancy of this project and to know their response towards this project proposition.

“A survey is a way of collecting information that you hope represents the views of the whole community or group in which you are interested” (Hampton & Vilela, n.d.).

A project would be much more relevant to have support from the users, not solely the ingredients poured by the author. The survey questionnaire can be reviewed in the appendix, and the results of the survey are discussed in Chapter 4.

3.2 Gantt Chart

Table 3.2: Gantt Chart

Gantt Chart (FYP1)		2012																			
Month		May				June					July				August				September		
Week		W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15	W16				
Planning																					
Finding the topic																					
Research																					
Preparing proposal																					
Preparing Gaant Chart																					
Analysis																					
Interview Ustaz (expert) and consult lecturer																					
Preparing Extended Proposal																					
Survey																					
Create flowchart																					
Design																					
Getting the software needed																					
GUI design																					
Basic physical design																	Exam week				

Gantt Chart (FYP2)		2013																				
Month		January					February					March				April				May		
Week		W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15	W16	W17				
Design																						
Basic physical design																						
Implementation																						
First Prototype																						
Getting feedback from the user																						
Ongoing prototype																						
Final Testing																						
Implementation																						
Presentation																						
Documentation																						

Table 3.2 shows the planning of author in running this project.

3.3 Analysis

3.3.1 Analysis: Electronic Solution Proposed

The technology today also illustrate that it is transforming most of paper-based activities to become electronically accessible. Common example would be traditional books versus e-books. It has shown great success as this provides ease to people and saves trees. The author also has decided to give a solution of an electronic version of mutabaah. The checklists would be easier to use and bring here and there in an electronic version.

3.3.2 Analysis: Tools and Software Required

Main tools required for the development of mutabaah tracking systems are:

- I. AppInventor MIT
- II. Java Development Kit (JDK)
- III. Eclipse IDE
- IV. Android Software Development Tool (Android SDK)
- V. Adobe Photoshop CS4
- VI. Laptop or computer.
- VII. Other than this, an Android device will be needed to test the coding for bugs fix.

For the very first prototype, the author has developed it using Java in AppInventor MIT to deliver the core function of mutabaah tracking, which is in the form of checklists (refer appendix for screenshot on the development).The improved version of the apps is then developed using Java in the Eclipse IDE (refer appendix for the screenshot).

3.3.3 Analysis: Proposed Division of Checklists

‘Ibadah demands that man submits his entire life towards complete submission to God. Due to this, Islam has prescribed some forms of ‘ibadah (specified ‘ibadah). They are known as 5 pillars of Islam (Rahman, 2007) :

- I. Kalimah ash-shahadah
- II. Salat (prayer)
- III. Zakat (Poor dues)
- IV. Sawm (Fasting)
- V. Hajj (Pilgrimage)

The author has decided to include prayer and fasting as one of the suggestion checklists besides many other form of unspecified ‘ibadah. However, this project will focus on additional or recommended (*sunnat*) prayer. As the author previously cited in Chapter 2, ‘ibadah is a vital component in building a Muslim character and moral. The Prophet (P.B.U.H) has also mentioned that prayer is the core of ‘ibadah. (refer Chapter 2).

Ahmad records from ‘Umar reports that the Prophet (P.B.U.H) said: *“The nawafil salah of a man in his house is a light; whoever wishes should enlighten up his house.”* – (Sabiq, 1898)

The benefits of solah are being discussed in Islam; ideology and the way of life (Rahman, 2007, p. 75-83). Some of the main benefits are:

I. Punctuality

Prayer teaches strict punctuality as it needs to be offered at appointed times five times daily. One needs to learn to be punctual at every prayer or he will be late or lose the benefit of congregational (jamaah) prayer.

“Establish regular prayer; for the prayer enjoined on believers at stated times.” (An – Nisa’: 103)

II. Sense of Duty and Responsibility

Prayer may act as training to develop a sense of duty and responsibility in an individual, first towards his Creator and second towards his fellowmen. That is why prayers have been prescribed 5 times a day, to give supplement and strengthen the spirit of duty. It is necessary for an individual who is appointed to a responsibility to be given adequate training to make him conscious of his duty and responsibility.

III. Character Building

Perseverance and hard work often define success of individual. A man of character does his work persistently and constantly. This is what strength of character mean. Those who work for Islam have *taqwa* and fear of God along with them. They will try to establish truth and justice in the land of their administration. There is no restraint from evil better than prayer as mentioned in the Quran:

“Establish regular prayer, for it restrains from shameful and unjust deeds.” (Al-Ankabut: 45)

IV. Patience and Perseverance

The qualities of patience, endurance and so forth are needed as sources of strength to face hardships and sufferings in life. The prophet is told to be patient in face of hardships and evil forces.

“Therefore be patient with what they say, and celebrate (constantly) the praises of your Lord (through prayer).” (At-Taha: 130)

V. Humility

Humility is engraved in the hearts of believers through the establishment of prayer.

“Indeed, the believers are successful, who humble themselves in their prayer.” (Al-Mu’minun : 1-2)

Believers who offer regular prayer become conscious of their insignificant position before the Majesty of their Creator. This makes them very humble and modest in their ordinary life.

The values that *salah* bring justifies why the author also include nawafil prayers as one of the main content in the application. In addition, the author also intends to include sunnah prayer such as sunnat rawatib. Sabiq (1989, p.3) mention that *nawafil* may be divided into two types: general and specific prayers. The *sunnan ar-ratibah* falls in the specified *nawafil* prayers category which include Fajr, Zuhr, ‘Asr, Maghrib and ‘Isha.

Sabiq (1989) in his books, *Fiqh us Sunnah – Supererogatory Prayer* emphasize that *At-tatawwu’*, or nawafil or supererogatory prayers have been legislated to make up any deficiencies in the performance of fardh *salah*. He also quoted a Hadith reported by Abu Hurairah that the Prophet, peace be upon him, said: “The first thing people will be called to account for on the Day of Resurrection will be prayers. Our Lord will say to the angels although He knows better: ‘Look into the *salah* of My servant to see if he observed it perfectly or was negligent in it. So if he observed in it perfectly it will be recorded to his credit, but if he had been negligent in it in any way Allah will say: ‘See if My servant has any supererogatory prayers.’ Then if he has supererogatory prayers, Allah would say: ‘Make up the deficiency in My servant’s obligatory prayer with his supererogatory prayers.’ Thereafter all his actions will be examined in like manner” (Abu Daw’ud).

Next, the author would also put *qiyam*, *tahajjud*, and *al-mathurat* in the checklists. Allah has ordered his Messenger to perform *Salatul Tahajjud* in the verse 79, surah Al-isra’. (Sabiq, 1989). Sabiq continues with ‘Abdullah ibn As-Salam reports; “When the Prophet, peace be upon him,

came to Madinah, the people gathered around him, and I was one of them. I looked at his face and understood that it was not the face of a liar. The first word I heard him say were: *‘O people, spread the salutations, feed the people keep the ties of kinship, and pray during night while the others sleep and you will enter Paradise in peace’.*”

Al-Mathurat is a compilation of *dhikr* and *dua* derived from the Majestic Quran and authentic hadith, presented in the form of wurd (litany) for morning and evening recitation each day. Al-Mathurat was compiled by Imam Shahid Hasan al-Banna, the founder of the Muslim Brotherhood, who strove to establish the perpetual remembrance of Allah and act as protections in all spheres of life.

In summary, these are the items that the author has considered to pre-populate in the daily checklists:

- I. Congregational prayer
- II. Sunnat Fasting
- III. Salah Dhuha
- IV. Salah Witr
- V. Al-Mathurat

3.4 Proposed Design

The author has gone through repetition design of user interface before coming up with the final one. Figure 3.3.1 below is the first version designed by the author for the main page consisting 4 main buttons which are set target, checklists, settings and performance button. There is also a small button for logging out.



Figure 3.4.1: First version of main page

However, after few analyses on how the other developer designs their application, with reference to available application in the Google Play, the author has modified it into the final version as in figure 3.4.2 below and the following.

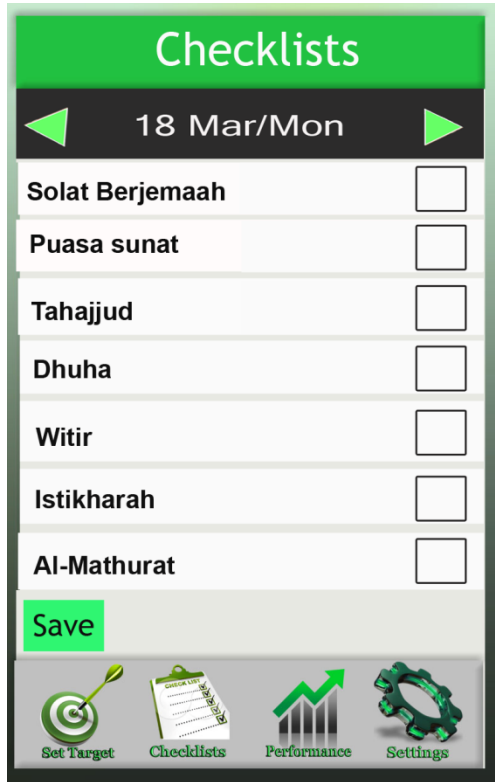


Figure 3.4.2: Checklists' button



Figure 3.4.3: Set Target button, View tab

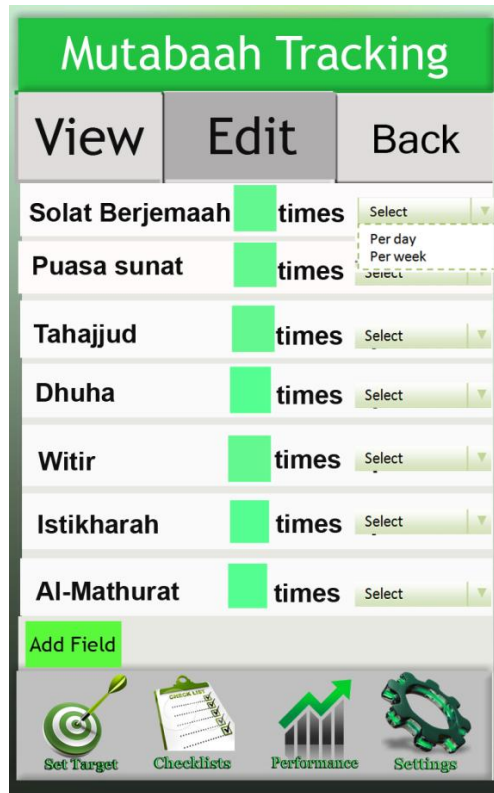


Figure 3.4.4: Set target button, Edit tab

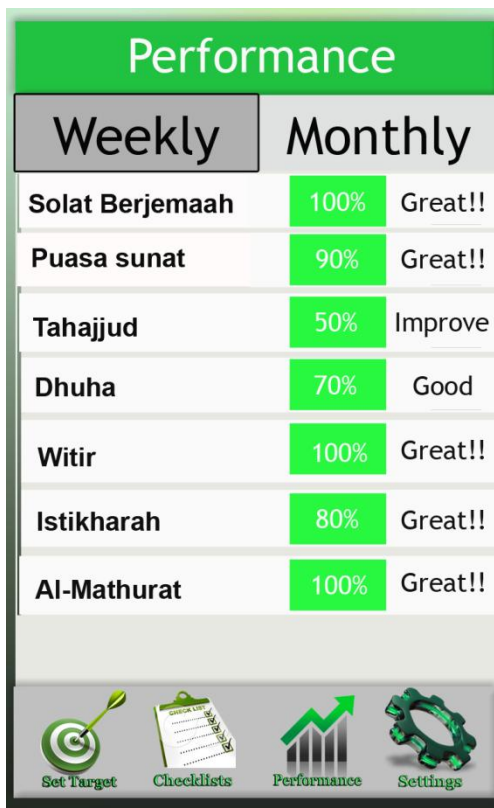


Figure 3.4.5: Performance's button

The author has come out with these designs due to close reference with the popular application, Twitter. Figure 3.4.6 shows the main page of twitter user interface design which is very professional.

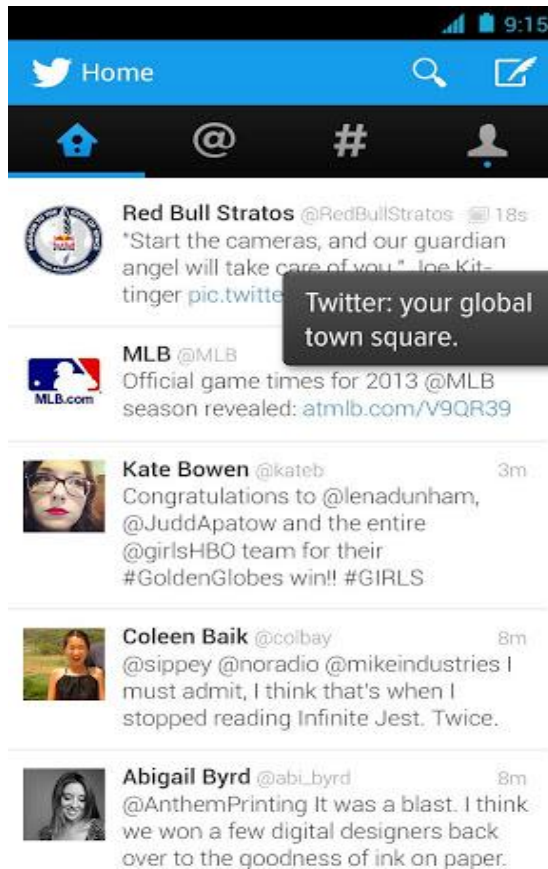


Figure 3.4.6: Twitter user interface design

These are the designs that the author tried to follow during implementation and development.

3.5 Implementation

For the development of mutabaah application, the functionalities that are being figured are as below:

- I. To set target for the week upfront
- II. To check or mark on everyday ‘amal performed
- III. To produce percentage on performance achieved

Major use of iterative prototyping is employed to help users to request changes to the system as it is being built, allowing applications to evolve rapidly (George, 2006). The author realizes that modification may be needed in the future where this methodology is being referenced to. For the core functionality of mutabaah application, it is being represented in the flow chart as below:

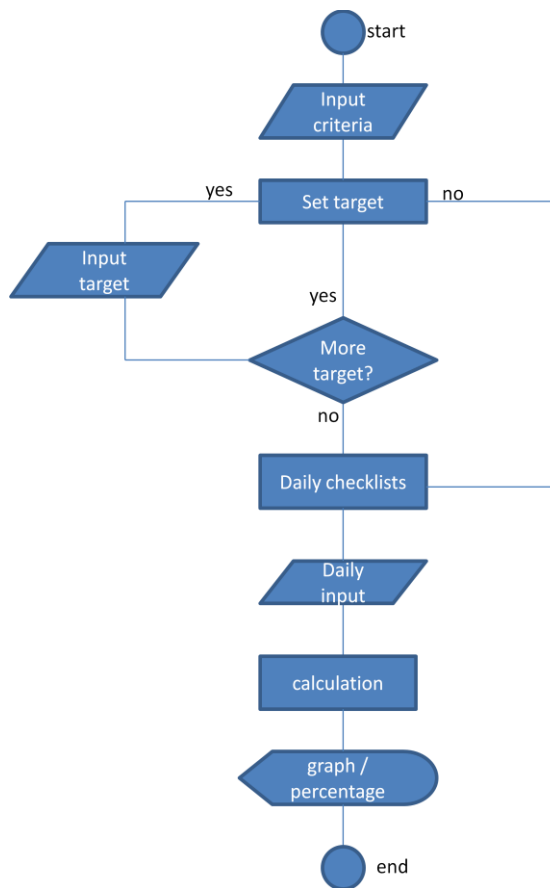


Figure 3.5(i): Flow Chart for Mutabaah Tracking Application

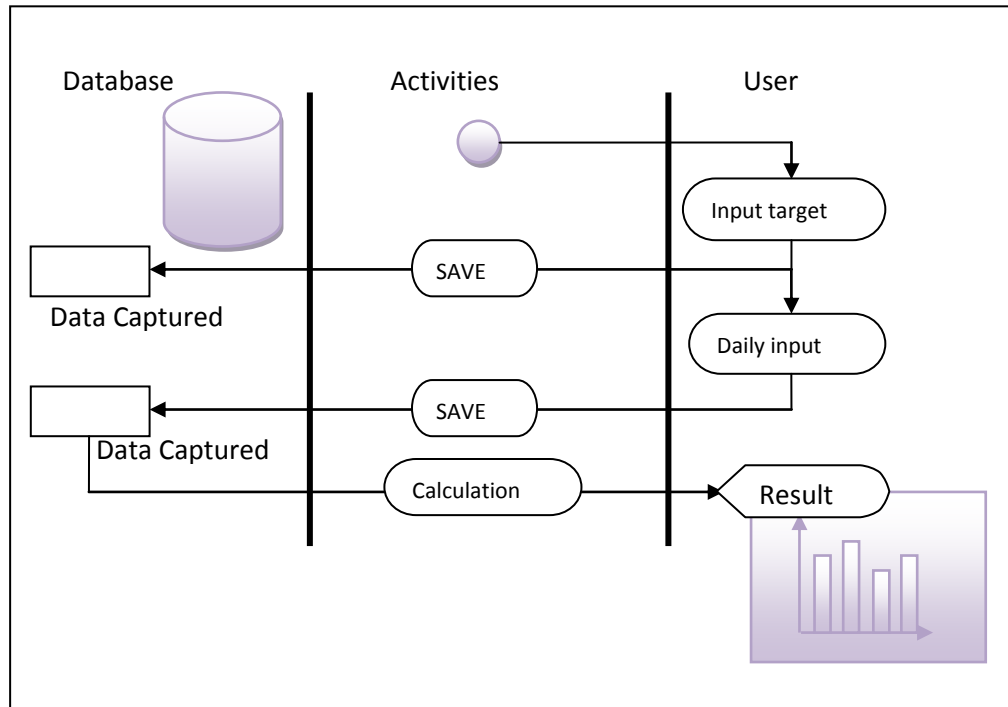


Figure 3.5(ii): Mutabaah Application’s Activity Diagram

Figure 3.5(ii) above depict activity that takes place in the application from 3 sides which comprises of database, activities itself, and user. During development as well, the author has come out with few java classes which are:

- I. MainActivity.java
- II. Checklists.java
- III. SetTarget.java
- IV. Performance.java
- V. mycalendarview.java
- VI. DBHelper.java

The classes can be viewed in the appendix as screenshots, taken from eclipse workspace during development.

3.5.1 Product Features and Functionality

During the development phase, the author has been revising the android tools (set of objects) used in the application for a better user experience over and over again. For the first prototype, the author only focuses on core functionality of this application, which is tracking the ‘amal performed. Thus, a set of lists with few suggestions of ‘amal are used for prototyping. The author has manages to prepare 2 prototype for this project. The first prototype is as in the screenshots below:

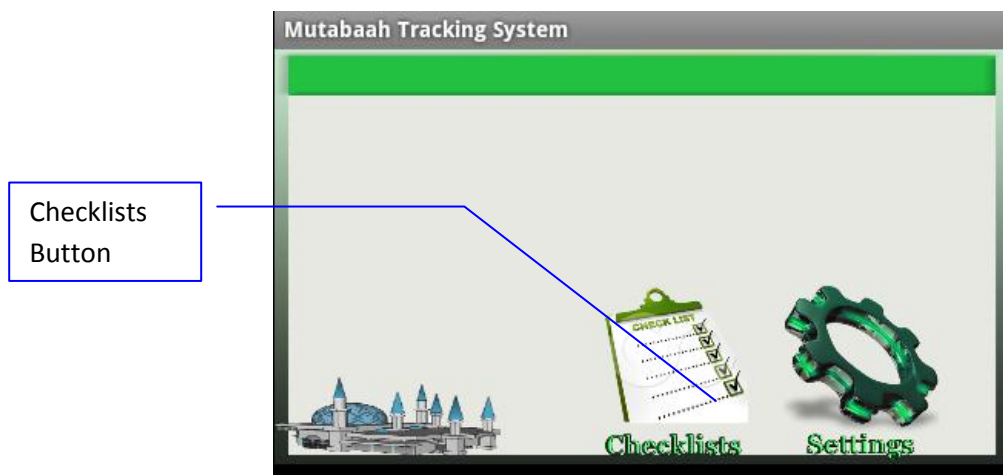


Figure 3.5.1(i): 1st Prototype Main Page

The main page consists 2 buttons which are checklists button and setting button.

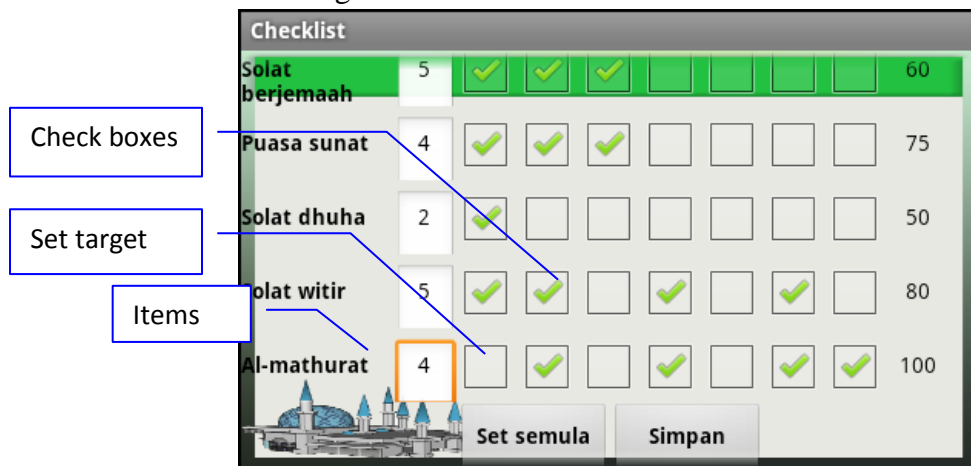


Figure 3.5.1(ii): 1st Prototype Checklists button

The above prototype was developed by using AppInventor MIT. The second prototype was developed due to comments and suggestion made by user to improve, during the prototype testing made (refer Chapter 4).

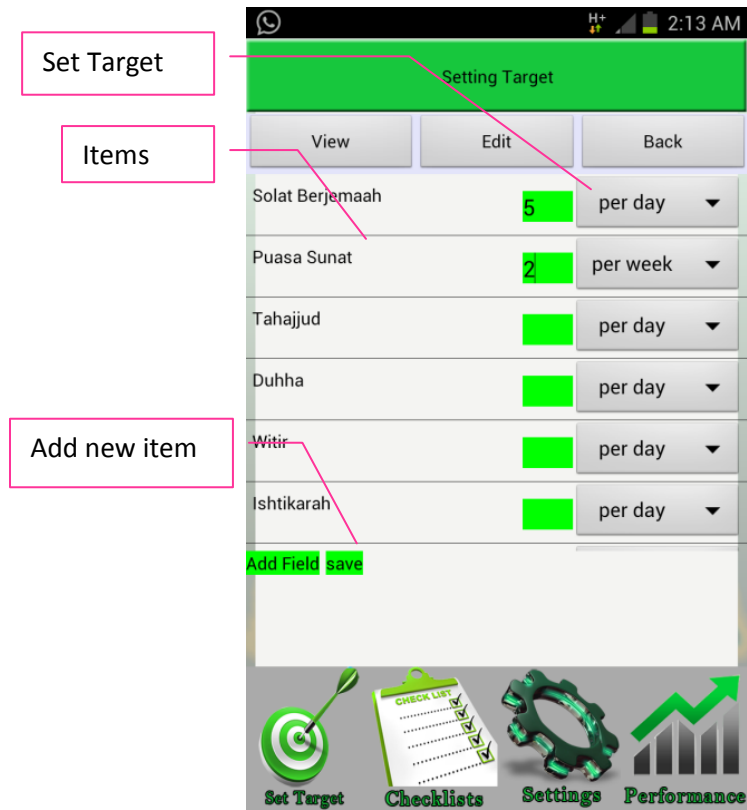


Figure 3.5.1(iii): 2nd Prototype, Set Target button

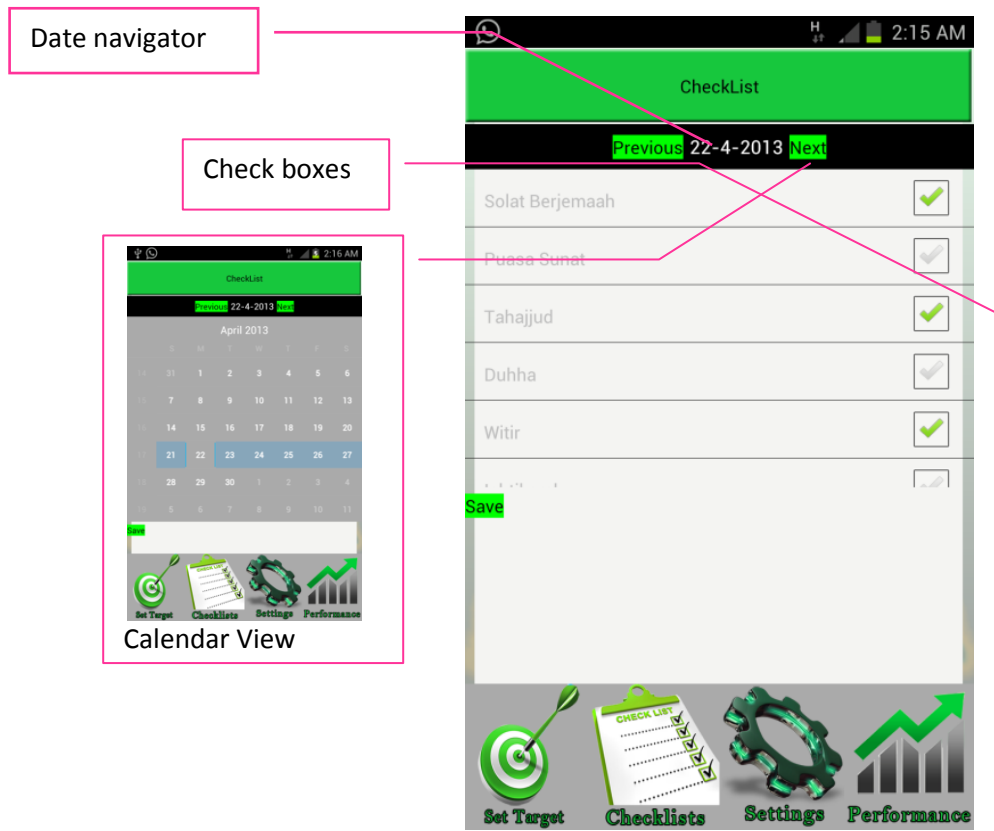


Figure 3.5.1(iv): 2nd Prototype, Checklists button

CHAPTER 4

RESULTS AND DISCUSSIONS

4.1 Discussion on Survey Questions

A survey has been distributed during FYP I period (before application development) to further support the selection of this application and all results have been captured for data analysis in the beginning phase of project development. Below are the findings and discussions on the questions asked.

4.1.1 The word mutabaah

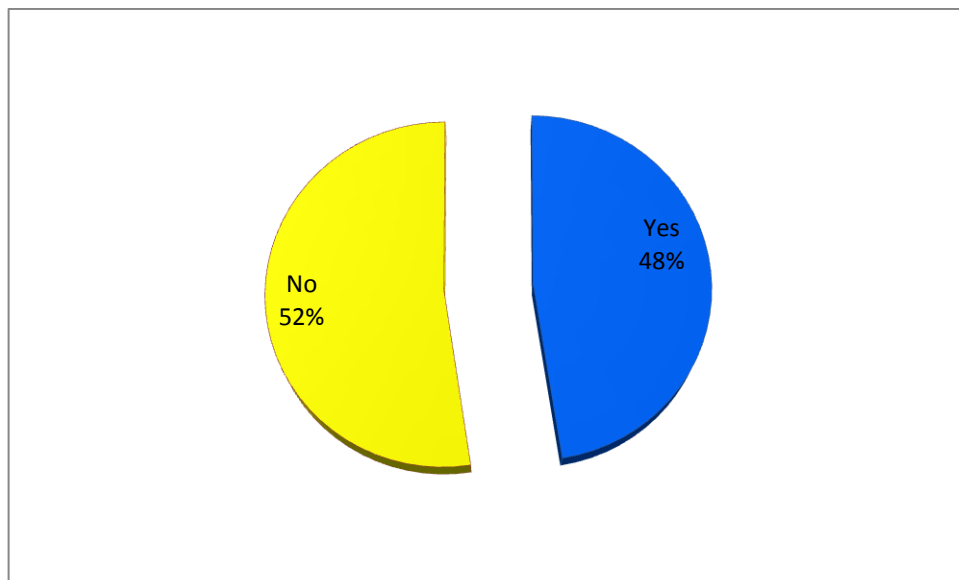


Figure 4.1.1: Respondents familiarization with term mutabaah

As shown in figure 4.1, 39 out of 82 are familiar with the term and a number of 43 unfamiliar respondents. This shows that the respondents are divided almost equally on the familiar and unfamiliar side. Maybe the 39

respondents have been introduced to 'ibadah performance tracking before. This result might affect whether they track their daily 'ibadah or not in the following question.

4.1.2 Keep track of 'ibadah

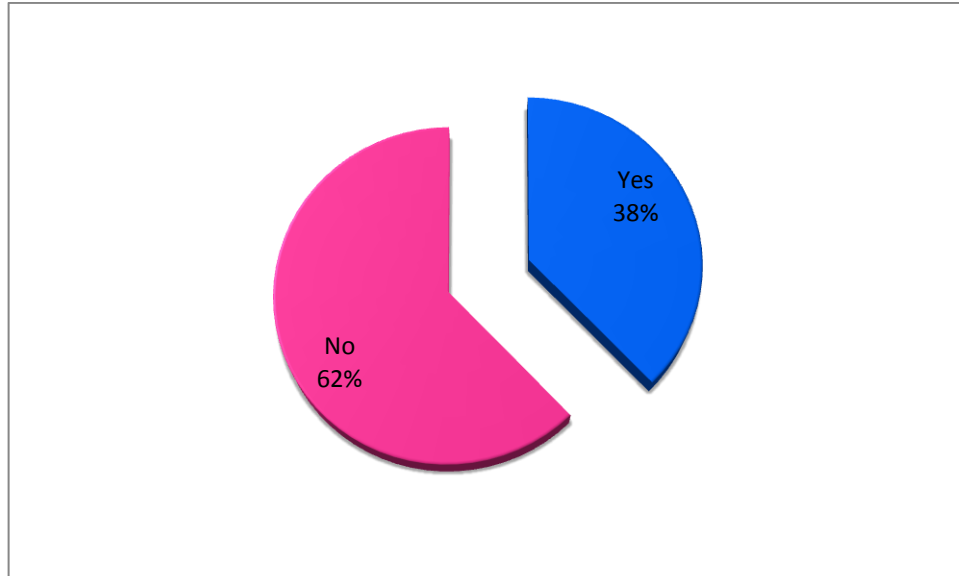


Figure 4.1.2: Respondents' percentage of tracking 'ibadah

According to figure 4.2, 31 out of 82 respondents mention that they track their 'ibadah. However, many of them who say they track, give comments that they track it not in a consistent manner. Sometimes they track, sometimes they forget. The rest simply says they are not tracking their 'ibadah. There is also reason where few respondents stated that they are lazy to track it due to the way of jotting.

4.1.3 The application helps to raise awareness on ‘ibadah

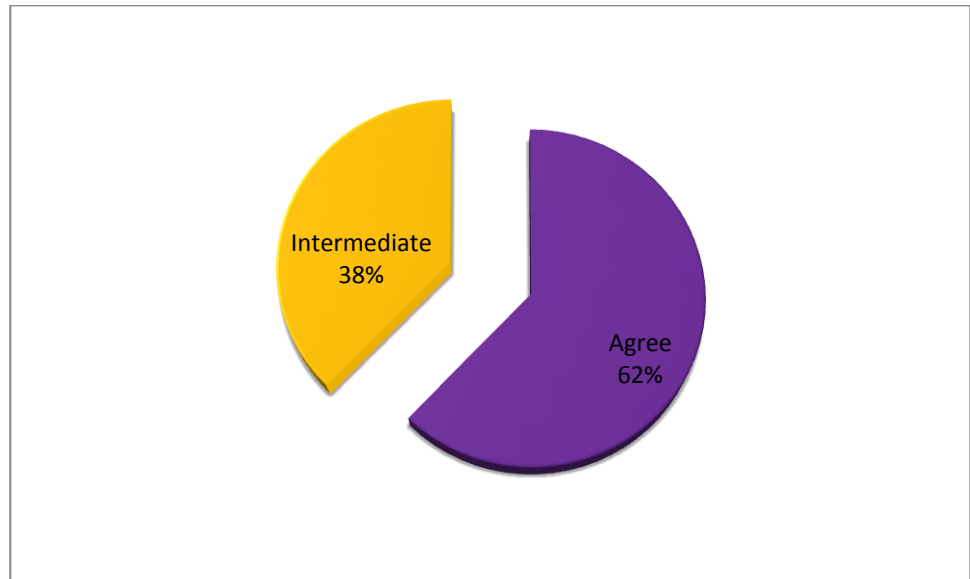


Figure 4.1.3: Mobile application to track ‘ibadah is helpful to raise importance of ‘ibadah

From the results attained, a majority of 51 respondents agree that the promotion of this application will help increase awareness on Muslims’ ‘ibadah. However, the remaining 31 respondents are still in doubt whether this kind of application can attract the Muslims’ interests. All in all, there are no respondents that disagree, which means there is room for the application to develop. This gives good indicator towards this project introductory phase as more than half of the respondents are welcoming such kind of application. Some of the respondents in the open end question did mention the purpose of human creation which has been discussed in Chapter 2 before.

4.1.4 Fardh *Salah* reminder

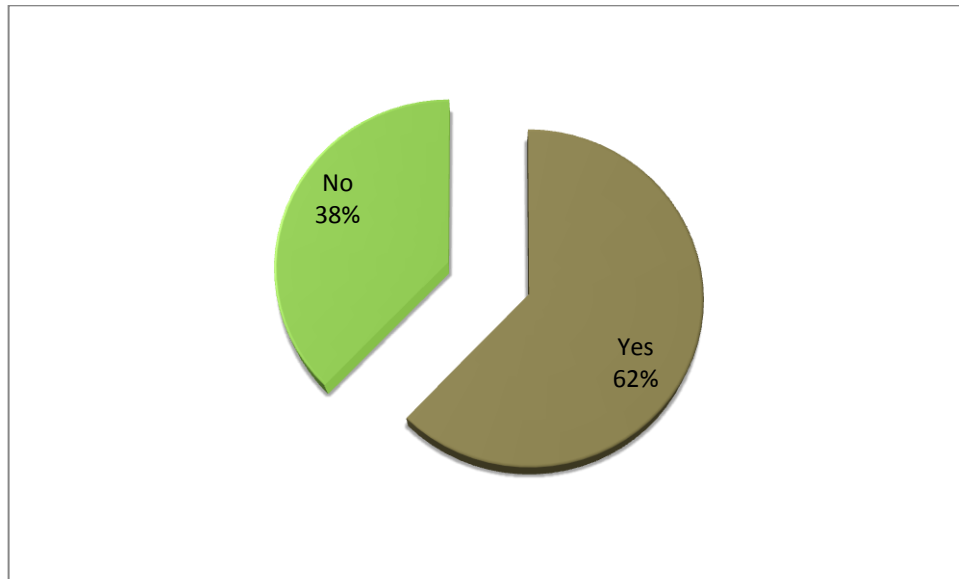


Figure 4.1.4: Fardh *Salah* reminder

The survey also includes questions regarding their fardh *salah*, which ask whether they need reminder or not in performing them. Figure 4.1.4 indicates that 31 from 81 respondents say they did not need any reminder, while 51 of the respondents say they need. Thus, adding reminder might be appropriate to attend to this need.

The survey also seeks for some suggestion on what respondent (user) want to have in the application that will be considered during development.

4.2 Prototype Testing

The first prototype testing was held on the 27th February 2013, delivering the core functionality of the apps to users. Table 4.2.1 below summarizes the suggestion and comments from users.

Table 4.2: Comments and suggestions from users

No	Items	Comments	Suggestion
1	User interface	is not professional looking	Improve, may need to compare or take a look on other application interface
2	Functionality	Add more	Can add some more items that user wants
3	Functionality	Revise the interface for daily input	Put calendar view and user can navigate between date
4	Functionality	Add reminders	Add customizable reminders for users
5	Functionality	Performance feature	Translate the percentage of achievement into graphical view

The comments and suggestions from users has been taken into consideration where the author tried to improve the first prototype into the second prototype as shown in screenshots in Chapter 3 before. However, not all suggestions are implemented and improved in the second prototype. This is due to time and skills constraint.

CHAPTER 5

CONCLUSION & RECOMMENDATION

This chapter is to summarize the study process and conclude the findings. It is hoped that the application produced has achieved the objectives of this project as stated in Chapter 1. Throughout the whole course of Final Year Project, the author has tried to turn the idea into reality with the effort, skills and time given, which comes with limitation. In addition, the author feels honored to run this project as the Final year Project which can contribute towards Muslims' community. The author has gone into depth to understand the user requirements for the application to replace the old-timer handling of mutabaah by observing, interviewing and self-testing on the available application. This application is hoped to help Muslims to monitor their 'ibadah performance, and increase awareness on its importance, indirectly.

In future recommendation, it is good to also maintain the interface layout and pixel adjustments to fit all of other devices on Android devices. It is also good to enhance the feature with customizable. This may consume much time for the development. Besides, maybe this application can be implemented on other platform as well.

REFERENCES

- Al-Banjari, R. R. (2011). *Cara Terindah Untuk Mati*. Selangor, Malaysia: PTS Publications & Distributors Sdn. Bhd.
- Al-Haj, A. D. (2001). *The Essence of Faith in Islam*. Delhi, India: Rightway Publications.
- Al-Hasan Biraima, M. (1998). *From Rationality to Righteousness: A Universal Theory of Action*. Sudan: MCB UP Ltd.
- Al-Latifi, A. H. & Noraine A. (2009). *Al-Wafi Syarah Hadith 40 Imam An-Nawawi*. Wilayah Persekutuan, Malaysia: Al-Hidayah Publishers.
- Al-Maududi, A. A. (2006). *Asas-Asas Islam*. Selangor, Malaysia: Dewan Pustaka Fajar.
- An-Nawawi, I. (1991). *Terjemah Riyadhus Shalihin*. Jakarta, Indonesia: Pustaka Amani.
- Android overtakes Apple with 44% Worldwide Share of Mobile App Downloads. (2011, October). Retrieved June 25, 2012 from <http://www.abiresearch.com/press/3799-Android+Overtakes+Apple+with+44%25+Worldwide+Share+of+Mobile+App+Downloads>
- Bilal Philips, A. A. (2003). *The Fundamentals of Tawheed*. Kuala Lumpur, Malaysia: A.S. NOORDEEN.
- Dennis, A., Wixom, B. H., & Tegarden, D. (2005). *System Analysis & Design with UML Version 2.0*. United States. Leyh Publishing.
- Fuzore, (2012). *Statistik Penggunaan Mobile OS Di Malaysia, Android Mendahului*. Retrieved March 15, 2013 from <http://www.fuzore.com/2012/07/mobile-statistik-penggunaan-mobile-os.html>
- George, M. (2006). *System Analysis & Design*. United States, America: McGraw-Hill Companies, Inc.
- Hampton, C. & Vilela M. (n.d.). *Conducting Surveys*. Retrived March 22, 2013 from http://ctb.ku.edu/en/tablecontents/sub_section_main_1048.aspx
- Hassan, H. (2012, July 28). Personal interview.

- Rahman, A. (2007). *ISLAM: Ideology and The Way of Life*. London, UK: A.S. Noordeen.
- Rahman, A. (2013, Feb 28). Personal interview.
- Sabiq, A. (1989). *Fiqh us Sunnah- Supererogatory Prayer*. United States of America: American Trust Publications.
- Sekaran, U. (2006). *Research Method for Business-A Skill Building Approach*. New Delhi: John Wiley & Sons Inc.
- Siddiqi, M. (2006, March). Fatawa: Islam and the Concept of Steadfastness (Istiqamah). Retrieved June 24, 2012 from <http://infad.usim.edu.my/modules.php?op=modload&name=News&file=article&sid=9004>
- Reed, B. (2013). Android, iOS wipe the floor with rivals, account for 92% of Smartphone shipments in Q4. Retrieved March 26, 2013 from <http://bgr.com/2013/01/28/android-ios-smartphone-shipments-q4-2012-309515/>
- Restivo K., Llamas R., & Shirer M. (2012, August). Android and iOS Surge to New Smartphone OS Record in Second Quarter. Retrieved August 10, 2012 from <http://www.idc.com/getdoc.jsp?containerId=prUS23638712>
- Rogers, R., Lombardo, J., Mednieks, Z. & Meike, B. (2009). *Android Application Development: Programming with the Google SDK*. O'Reilly Media Inc.
- Wortabet, J., Porter, H. (1995). *HIPPOCRENE STANDARD DICTIONARY: Arabic-English, English Arabic*. New York, United States of America: The Ungar Publishing Company.
- Yakan, F. (2008). *Apa Ertinya Saya Menganut Islam*. Selangor, Malaysia: Dewan Pustaka Fajar.

APPENDICES

Appendix I: Interview with Ustaz

Interview Notes Approved By: Ustaz Hamid bin Hassan

Person Interviewed : Headmaster of Pondok Hidayatullah

Interviewer : Ainunul Khalilah Binti Mat Akhir

Purpose of Interview:

- To understand deeper the meaning of the term mutabaah
- To get rough outline on the sub topic to be discussed in the report writing
- to identify problems associated with current handling on mutabaah tracking

Summary of Interview :

- The word mutabaah originated from an Arabic word “تبع”
- The word mutabaah and muhasabah is interrelated. Mutabah is the act of following while it is happening and muhasabah is the act of looking back at what we have done.
- There is a need in upgrading the current handling of mutabaah, especially for the youngsters
- Issues faced by current user:
 1. Hard to monitor
 2. People are lazy due to the way of jotting
- Suggestion on the new development of application features:
 1. Free to download
 2. Can set target and replace all the handling of mutabaah tracking conventionally

Appendix II: Interview with person who apply mutabaah tracking

Interview Notes Approved By: Siti Nuwairani binti Ismail

Person Interviewed : Person who apply mutabaah tracking

Interviewer : Ainunul Khalilah Binti Mat Akhir

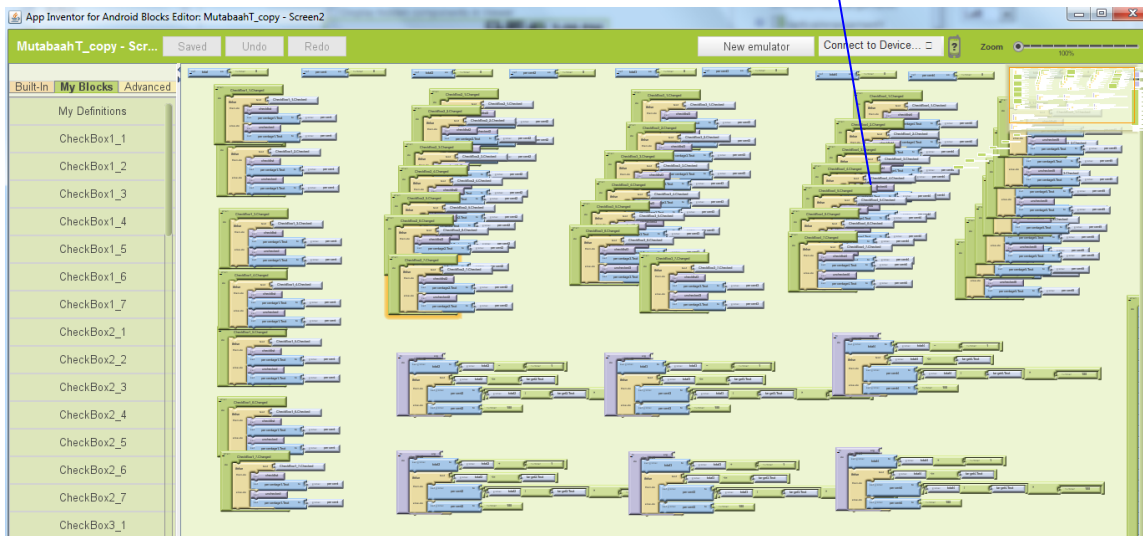
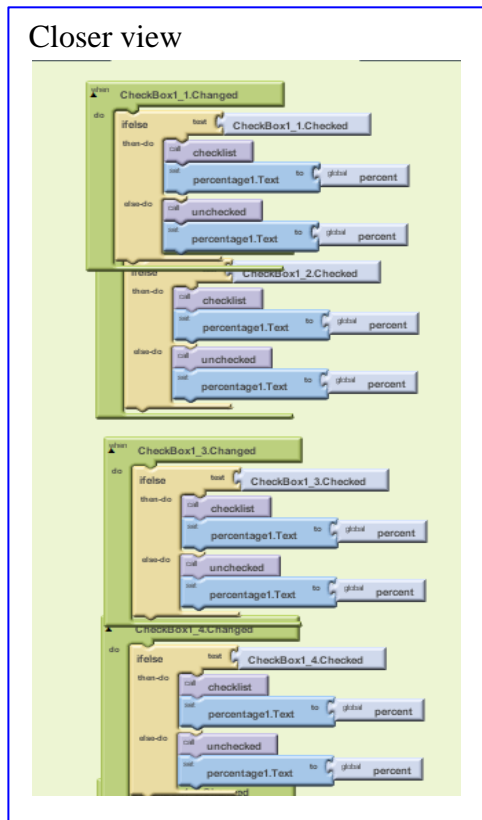
Purpose of Interview:

- Understand and analyze the current way of handling mutabaah
- to improve the current handling
- to identify problems associated

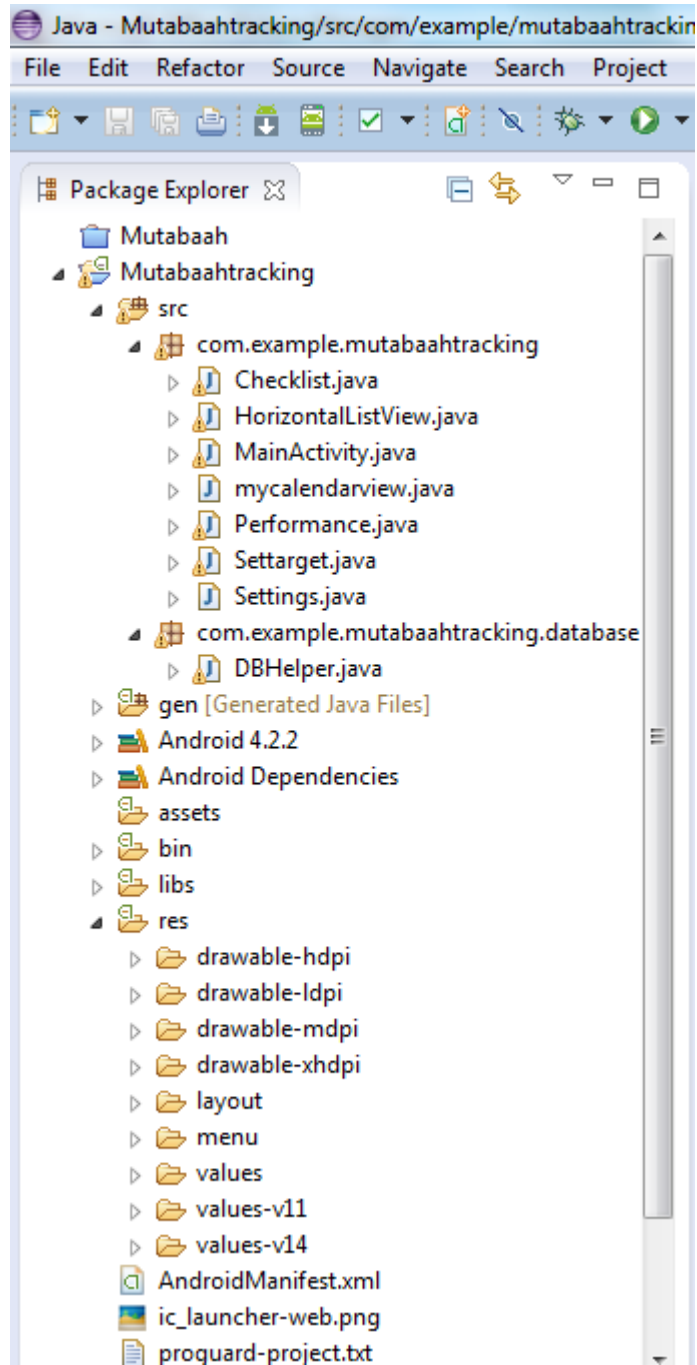
Summary of Interview :

- There is a need in upgrading the current handling of mutabaah
- Issues faced by current user:
 1. Very time consuming and tedious to recall and jot down what have been done
 2. Sometimes jot, sometimes forgot
- Suggestion on the new development of application features:
 3. Like a checklists
 4. Can see back how are we progressing in the week

Appendix III: Screenshot of AppInventor Argument



Appendix IV: Eclipse's Java Class



Appendix V: Survey on Muslims awareness and monitoring of ‘ibadah

This survey is intended for the development of Mutabaah Tracking application. Please respond accordingly.

* Required

Gender *

- Male
 Female

Age *

- 13-17
 18-24
 25-30
 31-40
 40 and above

Occupation *

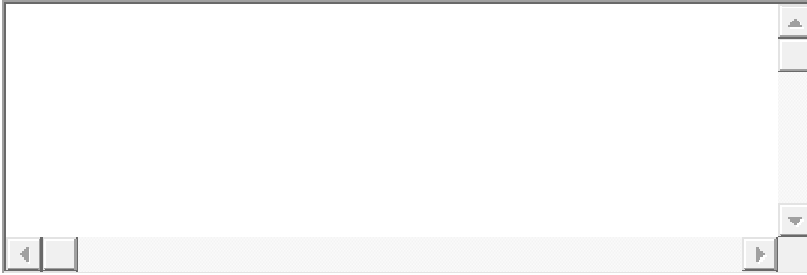
Are you familiar with the term “Mutabaah ‘amal or Mutabaah ibadah”? *

- Yes
 No

Every Muslim should care on their ‘ibadah performance. Do you agree? Please justify. *

Do you keep track of your daily religious practices? If yes, how do you monitor it? If No, please mention the reason why you did not monitor them. *(e.g recite Quran,

Mathurat, Qiyam, Sawm)



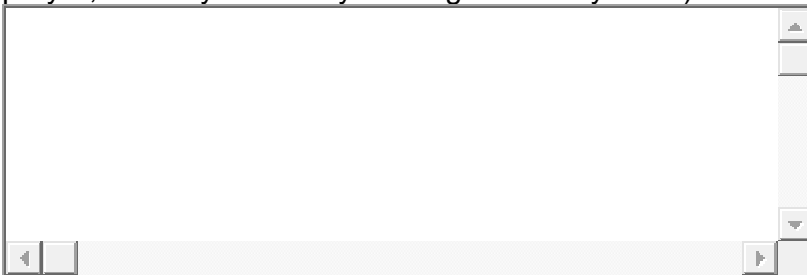
Name few recommended practices that you perform constantly till now. *



Fardh Solah are obligatory prayers that Muslims need to perform every day. Do you need reminder to perform it? If yes, please state why. *



Muslims should have the intension to improve their Ibadah and 'amal day by day. What is your effort to familiarize yourself with daily recommended practices by our religion? Please elaborate. *(Example of recommended practices are Rawatib Solah, Tahajjud, performing Subuh Jamaah/at Mosque, listen to Tazkirah, Dhuha prayer, Monday-Thursday Fasting and many more)



Does developing this application contribute towards increasing the awareness on importance of monitoring 'ibadah? *

- Strongly Agree
- Agree
- Indifference
- Disagree
- Strongly Disagree

Would you want to download if application on Mutabaah tracking is made available for mobile usage? *

- Yes
- No

Please mention if you have any suggestion or opinion regarding the mutabaah tracking application.eg. what other features should be included in the apps, what 'amal should be fixed and what can be customized.



Appendix VI: Technical Report

Mutabaah Tracking System

Ainunul Khalilah Binti Mat Akhir

(Author)

Bachelor of Technology (hons)

(Business Information System)

Universiti Teknologi PETRONAS

Tronoh, Perak.

Mutabaah Tracking System is a mobile based application, proposed to build on Android platform. Mutabaah is always being referred to Mutabaah ‘amal. A well known scholar states that a lot of people who become Muslims are due to hobby or born by their parents who already subscribes to Islam. Due to this, they do not understand the meaning of the submission. The main objective of this application is to assist Muslims in monitoring their ‘ibadah and for self evaluation to take place. The author hopes that by proposing this project, awareness on the importance of ‘ibadah among Muslims will be improved indirectly. The author is also trying to improve they conventional way of handling mutabaah, which is jotting on paper, as it has 3 major drawbacks such as the tedious effort of jotting, inconsistent manner of jotting due to forgetfulness and loss of records. The scope of this study are to understand and analyze the current way of handling mutabaah, analyze the best user interface design for the system and analyze the current available apps serving the same purpose. This application is anticipated to be relevant

to all Muslims due to the reason of human creation itself where stated by God in Surah Az-Zariyat, verse 56; “*And I have created Jinn and men only to worship Me*”(cont.). Another scholar gives example that there is no meal, drinks, sleep, awake, sit, stand, walk, talk, or silence unless they are regards as ‘ibadah in this life if it is being performed only for Allah’s blessings. The Prophet (pbuh) once said that “*prayer is the core of ‘ibadah*”. Iman is not static, as what The Prophet (pbuh) mentions; “it increases and decreases with deeds”. By having this application, ‘ibadah performed can be monitored for muhasabah to be in place. The author closely refers this project to Rapid Application Development model, specifically under Prototyping due to RAD ability to adjust system SDLC phases to get some part of system been develop quickly. The author applies observation, interview and questionnaire survey activities during project data gathering. User’s feedback obtained also shows that this kind of application is very helpful for them. At the end of this project, the author has finish developing the application with few features. It also hoped that this project would initiate more interests in the area of ‘ibadah evaluation application among other developer due to lack of application availability on this.

I. INTRODUCTION

A. Background of study

Islam constitutes of two basic complementary concepts which are "ایمان" (iman/faith) and "عمال" ('amal/actions) [1]. Rahman continues, iman if not supported by actions is unreliable while the other way around is meaningless and irrational. The integration of both elements is essential to attain success in this world and the Hereafter. A man who poses faith will lead him to a life of complete obedience and submission to the Will of God. That is what Muslims are. No person can become a true Muslim without iman, the seed that blossoms the beauty of Islam. The relation of iman and Islam is analogized as seeds and tree [2]. Reference [3] supports this argument with a hadith;

"Faith is not the ambition and delusion, but faith is what remains in the hearts and proved by actual deeds." (Narrated by al-Daylami)

Mutabaah in the first place highlights the importance of various "عبادة" ('ibadah) in the routine of Muslims. The absolute meaning of 'ibadah will be further discussed in Section 2. Mutabaah recognizes good deeds that a Muslim does as a practice in his life for the betterment in many aspects. For example, "qiyam", reciting Quran, the voluntary charity acts of giving "sadaqah" and many more. Mutabaah has been carried out

traditionally in the old days which will be discussed in the further readings.

Tracking system is not a new application to today's community. A lot of things previously been handled without any manual are transformed into a systematic operation. Take for example your diet. A person set his target to achieve drop in body weight by 5kg from his current weight. There must be a set of actions that he should come out with to guide him to achieve what he wanted. For example, he must eat certain amount of cereal during breakfast, not to forget to take lunch and maybe only allocate fruits for dinner as eating at night is not advisable. After some time, say one month, the weight is evaluated whether it is decreasing or increasing, whether it is approaching the target or getting away.

The same way it applies to mutabaah tracking. If our body needs food for energy, reference [4] says there is also food for the soul. The ultimate target of having this evaluation is for "mardhotillah" (Allah's blessing). In order to achieve this, a person would want to lists few 'ibadah that are recommended for daily practicing as Muslims. After a certain period, all the deeds are assessed. It is essential to practice as the English saying goes 'practice makes perfect'.

Mutabaah Tracking is a mobile-based application that main objective is to assist Muslims in monitoring their 'ibadah and do evaluation. The main reason of this application development is to emphasize on 'ibadah and to act in

accordance with the purpose of life in which mankind is created for. It is the natural behavior of human to undergo an unstable state of ‘iman which results in the idea to monitor ‘ibadah for improvements.

According to current handling of Mutabaah tracking as what is being interviewed and observed by the author, the ‘amal that one have done will be jotted down on a piece of paper or books or on a personal diary. In addition, there will also be a target set-up by them upfront to meet. Further observation regarding the handling of mutabaah tracking by author is described in the following section. Owing to the typical way of doing this, the author has come up with an electronic solution for on mobile phone’s tracking application.

B. Problem Statement

Reference [5] mentions that a lot of people who become Muslims are due to hobby or born by their parents who already subscribes to Islam and due to this, they do not understand the meaning of the submission. Again, as discussed before, Islam teaches their followers to submit towards Allah, proven by the doings, which in this case refer to ‘ibadah. The utmost aspiration of Muslims life has divert from being the servant of Allah whom seeking for *Mardhotillah*, into greediness and only after what offered by

Dunya. Dunya and and *Akhirah* if to be compared are far in value as what stated by reference [6]

“O you who believe! What is the matter with you, that when you are asked to march forth in the Cause of Allah (i.e. Jihad) you cling heavily to the earth? Are you pleased with the life of this world rather than the Hereafter? But little is the enjoyment of the life of this world as compared with the Hereafter.” – (At-Taubah: 38)

The 40th Hadith arranged by Imam Nawawi, as elaborated by Al-Bugha and Misto, translated by reference [7] justifies that *Dunya* is a stop for human as if we are a traveler, supported by below hadith of Prophet Muhammad (P.B.U.H.): On the authority of Abdullah bin Omar, who said: The messenger of Allah took me by the shoulder and said: *"Be in the world as though you were a stranger or a wayfarer."* The son of Omar used to say: *"At evening do not expect (to live till) morning, and at morning do not expect (to live till) evening. Take from your health for your illness and from your life for your death."*

The hadith as elaborated and translated by reference [8] justifies that *Dunya* is the bridge towards *Akhirah*. Whatever we encounter, face and live in this world should be taken as form of ‘ibadah to be rewarded in the next life. This explains why tracking ‘ibadah is vital. The conventional way of jotting mutabaah is like how typical works are being done before the evolution of electronics hardware in the old days. The author has interviewed a number of

3

colleagues who are tracking their mutabaah manually to detailed address problem associated. Below are the lacking of the conventional way for ‘ibadah tracking:

- i. A tedious effort of jotting down every ‘amal one performed

To every people who intend to see what ‘ibadah they have perform, they need to jot every single thing on the paper. The process of collecting the data itself is such an out-dated process which might not be found interesting to follow for the young generation especially.

- ii. Inconsistent manner in jotting due to forgetfulness

Most people are good in planning, however one may not disregard the closest disease of human, forgetfulness. In every single day, there must not be a thing that we do not forget. Sometimes it’s a small, tiny matter, or sometimes it is something that is very important. This forgetful syndrome also infects Muslims on jotting their ‘amal.

- iii. Loss of record

Sometimes the record of the mutabaah has been missing, misplaced and this resulted in inability to do muhasabah (self-introspection) on the performance. For review purpose, if the record is incomplete, it is hard to define where one is standing on the performance perspective.

Other than the three main difficulties user face, especially on the

forgetfulness part, adding reminders feature might provide good assistance. For example, reminder in fulfilling the daily duties. Further discussion on the product feature and functionalities will be addressed in later section.

C. Significant of the project

The application proposed is checklists which user uses to tick or mark their daily ‘ibadah and *sunnah* practices. These categories are further discussed in Section 2. Tracking the daily ‘ibadah of oneself is very essential to ensure one enlist themselves in the path of making Islam as the way of life. Indirectly, they also uphold the doings of Prophet Muhammad (P.B.U.H) which is a noble thing to practice.

However, the reality that is happening today is Muslims care less in their responsibilities towards Allah. The numbers of people who call themselves as Muslims but not acting like one are increasing nowadays. The term ‘Muslims in name only’ is strange no more. Muslims and ‘ibadah should not be separated. However iman is not static. Hence, to track what has been done is appropriate to muhasabah and gains back the spirit to continuously perform the ‘amal. Constant doing may teach us how to be disciplined in practicing good values as per told by Islam, the Divine religion. The Prophet (P.B.U.H) said that “*iman increases and decreases with deeds*”. – [9].

Narrated Al-Mughira, The Prophet used to stand (in the prayer) or pray till both his feet or legs swelled. He

was asked why (he offered such an unbearable prayer) and he said, " *should I not be a thankful slave.*" (Rawahul Bukhari and Muslim) – [10].

Being thankful to God of what we have been given upon must be interpreted into action. The Prophet who is already been promised by Allah to be in Paradise has not forget to proof that he is thankful. Question follows are, are we thankful enough if ‘amal is the parameter? Is the current ‘amal we perform enough to secure us a place in the paradise? Even though the paradise is already prepared and welcomed for The Prophet, his effort, his ‘ibadah to please Allah never become less.

By having this application, user’s effort to note down the daily ‘amal is anticipated to become easier. This application is important for self-evaluation (muhasabah) to always be in faith and Allah’s guidance. How? To do this, one has to check their level of ‘amal. This has to be re-evaluated by ourselves. In Islam, faith is not only being accepted through expression and conversation, but need to have proof and followed by actions.

D. Objectives and Scopes of Study

The key objective of this project is to help Muslims to increase awareness of their ‘ibadah achievement. The author also intends to conduct research on the problems of the conventional way of jotting ‘amal and how this can be improved. During the development phase, the author has had series of improvements with regards to user

testing and comments from users. However, there are few limitations that cause the intended satisfactory application features not delivered such as time frame and the authors’ knowledge and skills constraint. The author deliberates this project to call Muslims to get back to the purpose of human creation as discussed in Section 2 later.

Scopes of study:

- I. Understand and analyze the current way of handling mutabaah
- II. Analyze the best user interface design for the system
- III. To study the current available apps serving the same purpose

Mutabaah tracking applies to all Muslims who wish to upgrade themselves to become nearer to The Creator, Allah The Almighty by means of improving themselves in their doings and deeds.

E. Relevancy of the Project

The application is very relevant to all Muslims. It helps Muslims who would like to take a step ahead in familiarizing themselves with daily activities which could be regard as ‘ibadah. This project is also in accordance to the purpose of human creation, discussed further in Section 2.

F. Feasibility of the Project within the Scope and Time frame

During the first semester, the author has spent time focusing on the research and documentation. The author has use the intermediary semester to

learn on the Android programming using java and also into finalizing the user interface to apply. During the final semester of the author, the core functionality is developed for the first prototype and the author will be committed solely to the application modification until the final version is derived. The author has gone through few user interface modifications series, in order to arrive at the most user-friendly interface.

At the end of this project, an application with the most user-friendly interface is expected. However, the application might still need further enhancement on the features itself to be able to compete with its available challenger in the Google Play. The author optimist that this project will become the initiator project to upgrade the current handling of mutabaah and to be looked as an effort in bringing the importance of Muslims' 'ibadah in the eye of other developer. This kind of application, according to the author observation is still lack in attention, whereas there is an existing and bigger opportunity market for it.

II. LITERATURE REVIEW

According to the Arabic-English Hippocrene dictionary, the word "متابعه" (mutabaah) origins from the Arabic word "تبع" which means "to follow" [11]. The word "متابعه" (mutabaah) and "محاسبه" (muhasabah) are closely interrelated (Ustaz Hamid Hassan, personal communication). This

is also supported by reference Ustaz Abdur Rahman (personal communication). Ustaz Hamid added, mutabaah is the act of following while it is happening. Whereas, muhasabah is after the occurrence where one look back at what have he or she done and take corrective action. The other word that would describe muhasabah is postmortem. Putting these words in the context, mutabaah is the act of other person or group following a person's 'amal. On the other hand, muhasabah is the act of oneself who look back into his or her 'amal for any amendments or correction.

This application helps Muslims to be disciplined and familiarize themselves with all the good deeds suggested in the way of Islamic life. It assists users to stay istiqomah in their practices reference [12] says istiqomah means to be straight, to follow the straight path, to remain firm on one's principles. In addition, Mutabaah checklists application also helps people to evaluate oneself (muhasabah). Mutabaah tracking is relevant to apply due to the main point of mankind creation which Allah stated few times in the Holy Quran.

A. Absolute meaning of 'ibadah (acts of devotion)

Reference [13] mentions that the word "عبادة" ('ibadah) means obedience and submission to the will of God. This includes all actions which are performed in obedience and for what pleasure Allah [14] Believing in the

Sovereignty of God means to accept and follow his commands. Reference [15] says that The Holy Prophet said about the integration of acts and faith: Whoever says that faith is action is in fact referring to word of God.

“And this is the Paradise which you are made to inherit because of the deeds which you used to do”. (Az-Zukhruf : 72) – [16]

Reference [17] continues to list few examples of acts in which are considered as ‘ibadah in daily routines such as avoiding lies and bad words, instead, talk nicely to human, mix around for business or trade in the market, mingle with family members, relatives, friends for which all are carried out with the law underlined by Allah, that person has undergo his life in the act of devotion. That person’s deeds are called ‘ibadah.

Reference [17] supported by reference [18] added few more examples on other things which are common in the daily life which could be regard as ‘ibadah, if it is being performed only for Allah’s blessings. These are if you do well on the poor, or the oppressed people you help or you feed the hungry, or to pay a visit to people whom are sick. Al-Maududi also states if you involve in field like business, trade or deliver services, and you do with full of trust and truth because you fear Allah, then you work on the halal, and stay away from what is haram, then all your activity is due to worshipping Allah despite all you do is to make a living for yourself.

“All in all, your fear towards Allah in any situation of your life, at all times, in which you make the pleasure of God the focus of your thoughts, you follow His laws, and you ignore all benefits you may get by doing things that displease Allah, you be patient to Allah’s trials, all these are none but ‘ibadah towards Allah, and the journey you go through from the very beginning till end is considered as ‘ibadah.” [19].

Reference [19] continues that there is no meal, drinks, sleep, awake, sit, stand, walk, talk, or silence unless they are regards as ‘ibadah in this life. However, there are specific ‘ibadah which has been underlined by Islam as compulsory. Due to these, it is called the pillars of Islam and all other ‘ibadah mentioned in daily activities above are the building which are made of these pillars [19].

Our Prophet Muhammad (P.B.U.H) has once said: *“prayer is the core of ‘ibadah”*, reported by Anas. – [20]

“The real purpose of Islam in declaring ‘ibadah embraces the total life of man is to make Faith play a practical and effective role in reforming human life and in developing in man an attitude of dignified patience and fortitude in the face of hardships and difficulties and in creating in him the urge to strive for the prevalence of good and extirpation of evil. In prayer, man finds the surest and quickest way of obtaining moral and spiritual perfection”. – [21].

B. Purpose of life

Everything that is being created comes with purposes. People invent car to ease movement and for their transport to go around. Allah The Almighty also create mankind for a purpose which He clearly stated in surah Az-Zariyat, verse 56, [22]:

"And I have created Jinn and men only to worship Me. I want no sustenance from them, not do I want them to feed Me. Surely, it is Allah, Who is the Provider, The Powerful."

Reference [22] added, in Surah At- Tawbah, Allah says *"And they have been commanded no more than this: to worship (and serve) Allah, offering Him sincere devotion, being true in faith"*. Allah mentions this in verse 5.

Again, in Surah An-nisa' verse 1, Allah says *"O Mankind! Reverence (and serve) your Lord, who Created you from a single person, created, of like nature, his mate, and from them scattered countless men and women; reverence (and serve) Allah through whom you demand your mutual rights."* –[22].

There is many more of God saying to convey the purpose of human creation which are stated in the Holy Quran. A man should obey and follow the teachings of His Messengers if he believes in Allah. One cannot just believe in the Sovereignty of God but not accept and follow His Commands. A'mal (good deeds) can be classified into two categories which are:

i. Acts of devotion

ii. Good deeds to men

Through acts of devotion, one fulfills obligations to Allah (Huquq Allah), and through good deeds to men, one fulfills obligations towards his fellow being (Huquq al-'ibad). Iman denotes acceptance of Divine Truth while 'ibadah helps man to act accordingly.

C. Ups and down in spiritual states

As normal human, it is hard to maintain the spiritual momentum at a level where one found their selves nearer to The Khuluq (The Creator). 'Iman is like the sea wave which does not know the meaning of steady state. Always has it's up and down. Iman and 'amal is interconnected. Iman without 'amal is like tree without its flower, while life that with no content of 'iman is like a tree with dead root. The question that arise is "how to 'istiqomah' (steadfast) in doing 'amal?". Steadfastness of 'amal and good deeds are very vital in Islam as what reported by the daughter of our beloved Prophet below.

Ai'shah (radhi allahu anha) reported the Messenger of Allah (P.B.U.H) saying: *"The most beloved deeds to Allah are the most constant, even if they were little."* (Bukhari and Muslim) – [23].

The effort of following deeds that we have performed is vital for muhasabah component.

Mutabaah is often being referred to mutabaah ‘amal. It is the reflection of our faith that has been interpreted into actions. Why mutabaah is very essential? Mutabaah is all about ‘ibadah. As Muslims, we are created to worship Allah and to perform good deeds to seek for His blessings. This project is proposed mainly to help Muslims to care more in their daily deeds by having the checklists and this may be an effort of those who would like to drive themselves better, day to day and nearer to the *Khaliq* (The Creator).

Peace with God implies complete submission to His Will who is the source of all purity and goodness, and peace with man implies the doing of good to fellowman, and both these ideas are beautifully expressed in the Holy Quran which says:

“Nay, whosoever submits himself completely to Allah and he is the doer of good, shall have his reward from his Lord. No fear shall come upon such, neither shall they grieve”. (Al-Baqarah :113) – [24].

D. Why electronic solution?

There are many things that have gone electronically-solved since the rapid technology advancement encountered. One of the most being referred to is books and electronic books. The same situation applies here where electronic solution is the choice. Recently, mobile technology has shown rapid growth. In every aspect of our lives, mobile technology is applied. The introduction of smart phones has

changed the handset industry from low budget handset devices to high performance mobile devices. Today’s phone is almost everything. It support many purposes such as email, internet browsing, games, multimedia, access to social networking sites like YouTube, Google search, Facebook and more. Smartphones show higher application usage than featured phones. The percentage of people who use their phone for only voice communications has been dropping with more people interested in smart phone and what more it offers. That is why electronic solution is being chosen and to add it up, the author prefers it to be phone-built in rather than build on laptop due to smart phones mobility.

E. Why on android?

There are several operating system supporting today’s mobile phones such as Windows, Bada, Symbian, Android, iOS, Blackberry and others. However, Android is the widely used by people around the globe nowadays. Android emerged at the right time for embedded designs, it offers lots of beneficial things in our self-fulfilling process.

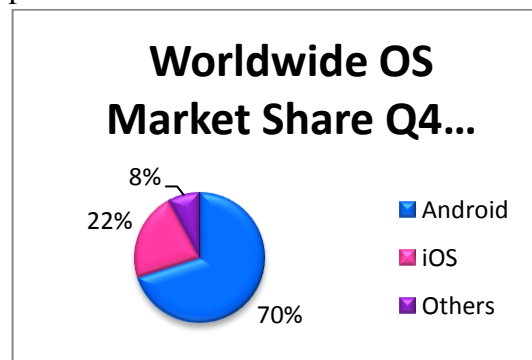


Figure 1: Worldwide OS Market Share (Q4) of 2012

Reference [25] in his article posted the most recent research made by Strategy Analytics, dated 28 January 2013 showing Android platform now conquer almost 3 quarter of total market share which is 70%, followed by iOS 22%, and others 8%.

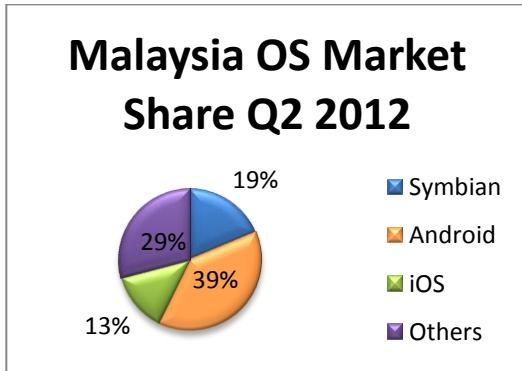


Figure 2: Malaysia Operating System Market Share (Q2) of 2012

According to reference [26] with reference to StatCounter Global Stats research of Malaysia latest market share, an increase is seen in android OS which now contributed 39%, next, populated by symbian with 19% and iOS holds 13% of the market share. However, there are 29% which falls into others category which is also a big portion of the overall market share.

Observing the growth of the Android OS market share initially when this project is first selected till now, the author is confident that Android platform is a huge market to serve. In addition, the extra benefits of Android OS have convinced the author to go for Android market for the project. Android is open source software which means the source code is available to users and been distributed at no cost [27]. It is simply free for the core technology and

we can drill down into the coding and customizes it according to our requirement. Hence, the author taught that choosing Android is the platform to accomplish this project successfully.

III. METHODOLOGY

The research methodology that is referenced during this project development falls under Rapid Application Development (RAD) modeling phase, under prototyping. RAD-based development basically tries to adjust the typical System Development Life Cycle (SDLC) phases to have some part of the system, which most likely are the core function of the system to be developed quickly [28].

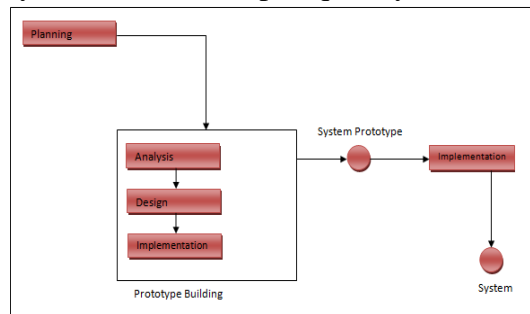


Figure 3: Standard Prototyping Methodology phases

Figure 3 shows the standard of Prototyping approach. During Final Year I (FYP I), what has been completed are all the planning, data gathering activities, and analysis. Designing and first prototype has been completed at the intermediating period between FYP I and FYP II. In the subsequent phase, which is prototype iterative modification has been done all the way during FYP II completion.

A. Planning and Data Gathering

In every system cycle, planning plays an important role. At this phase, all information available which relate to the topic should be gathered to ensure success of project. Following are the steps have been taken by the author as of this writing:

- I. Redefining topic and scope of study.
- II. Existing research paper and writings related to this project are read.
- III. Decide on the tools required.
- IV. Get all the required tools to be installed.
- V. Develop a Gantt chart for proper planning.
- VI. Preparing for data gathering

Data can be obtained from primary or secondary sources. Reference [29] says that primary data refer to the information obtained firsthand by the researcher on the variables of interest for the specific purpose of the study while secondary data refer to information gathered from sources already existing. The approaches chosen by the author in this project for research study are observation, interview and questionnaires survey conduct. Below are some ideas on activities that author has identified during this project initialization (further discussed in below readings):

- I. Interview Ustaz (Experts) on few meanings of Arabic wordings and terms, either than seeking their opinion on project justification.

- II. Interview of the conventional way of collecting and handling mutabaah checklists and user preferences of solution

- III. Survey questions has been prepared and distributed

- IV. Analyze the best design and solution to the problem addressed

- V. Create a flowchart for the application

- VI. The author develop understanding on activities involved in the application and how users interact with the application

1) Data gathering: Observation

- I. Problems faced by classical mutabaah tracking

The author has taken some information from few interviewees. Focal drawback lies in the way of jotting itself where it is considered as old-timers and tiresome. Some other problems identified are those jotting their ‘amal misplace the sheet they jotted. Some of them just do not have the time to jot it somewhere. Other than that, it is also difficult to monitor their performance and achievement as there is no data analyzation. (For further readings, please refer interview transcript in the appendix)

- II. Available application on Android market

For many years back, the author has observed there is only 1 existing application that serve the purpose of mutabaah tracking, even until now. It is being developed by an application

developer company under the name Badr Interactive.

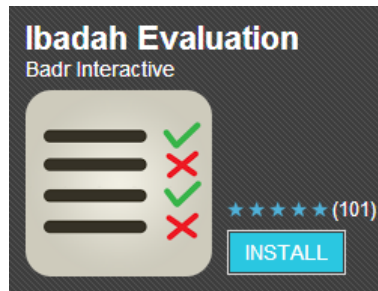


Figure 4: 'Ibadah Evaluation Application Icon

This sole application has been serving the community for many years with very slow development and fixes even though there are still some. This application has become one of the references for the author in developing the proposed solution to this project. Below are the features and interface of the application taken from the application screenshots and some description according to the authors' review of the app itself.



Figure 5: Checklists' screenshots

Figure 5 shows the everyday's checklists that user need to input. It is in

a day-to-day format, with plenty of check boxes for the everyday input and user can navigate to other date by pressing next or previous sign at the upper part of the screen.

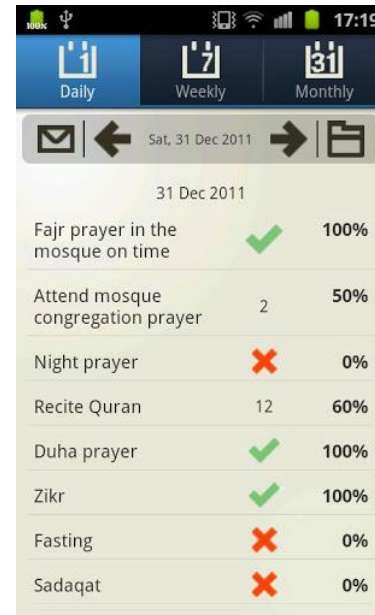


Figure 6: Daily achievement's screenshots

Figure 6 shows the performance in a daily basis. It is calculated according to the user's preference on their target set earlier in the process. There are also other preferences on the performance calculation-basis such as weekly basis and monthly basis as per indicated in the label.

However, according to application testing done by the author and from comments drop by at the feedback column in android store, this application is still having trouble to function on many devices. It can only function on certain devices such as Samsung Galaxy Note and Samsung Galaxy S3. Most of the other android Smartphone's fail to get this apps running and keeps crashing. There are bug fixes undergone, by still, the fixes

and development rate is quite low and slow.

2) Data gathering: Interview

During the data gathering phase, the author also experience interviewing scholars (ustaz) and also people whom are applying the concept of mutabaah. The author meets ustaz for a clearer view on the meaning of mutabaah itself and to have an overview about its concept, before proceeding with other research so that the idea the author had is in line with the real concept. Few people are also interviewed to know the current handling of them performing mutabaah tracking. This is done for the author to capture deep understanding on the handling. Both interview transcript with ustaz and others are attached in the appendix.

3) Data gathering: Survey

A questionnaire survey is being conducted to get user's opinion and feedback regarding the relevancy of this project and to know their response towards this project proposition. "A survey is a way of collecting information that you hope represents the views of the whole community or group in which you are interested" [30]. A project would be much more relevant to have support from the users, not solely the ingredients poured by the author. The survey questionnaire can be reviewed in the appendix, and the results of the survey are discussed in Section 4.

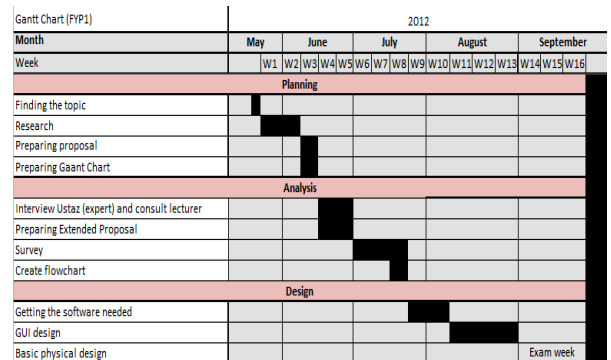
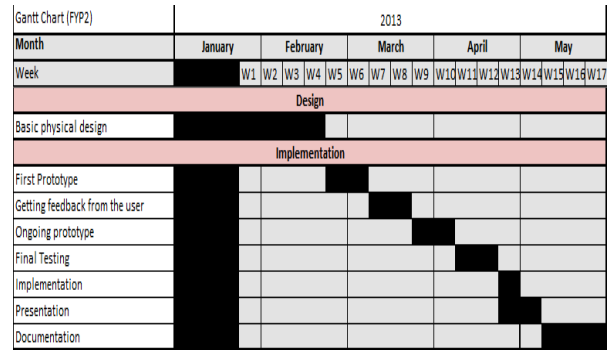


Figure 7: Gantt Chart

Figure 7 above shows the plan of the author for the whole project development.

3) Analysis

1) Analysis: Electronic Solution Proposed

The technology today also illustrate that it is transforming most of paper-based activities to become electronically accessible. Common example would be traditional books versus e-books. It has shown great success as this provides ease to people and saves trees. The author also has decided to give a solution of an electronic version of mutabaah. The checklists would be easier to use and bring here and there in an electronic version.

2) Analysis: Tools and Software Required

Main tools required for the development of mutabaah tracking systems are:

- I. AppInventor MIT
- II. Java Development Kit (JDK)
- III. Eclipse IDE
- IV. Android Software Development Tool (Android SDK)
- V. Adobe Photoshop CS4
- VI. Laptop or computer.
- VII. Other than this, an Android device will be needed to test the coding for bugs fix.

For the very first prototype, the author has developed it using Java in AppInventor MIT to deliver the core function of mutabaah tracking, which is in the form of checklists. The improved version of the apps is then developed using Java in the Eclipse IDE.

3) Analysis: Proposed Division of Checklists

‘Ibadah demands that man submits his entire life towards complete submission to God. Due to this, Islam has prescribed some forms of ‘ibadah (specified ‘ibadah). They are known as 5 pillars of Islam [31] :

- I. Kalimah ash-shahadah
- II. Salat (prayer)
- III. Zakat (Poor dues)
- IV. Sawm (Fasting)
- V. Hajj (Pilgrimage)

The author has decided to include prayer and fasting as one of the suggestion checklists besides many other form of unspecified ‘ibadah. However, this project will focus on

additional or recommended (*sunnat*) prayer. As the author previously cited in Section 2, ‘ibadah is a vital component in building a Muslim character and moral. The Prophet (P.B.U.H) has also mentioned that prayer is the core of ‘ibadah. (refer Section 2).

Ahmad records from ‘Umar reports that the Prophet (P.B.U.H) said: “*The nawafil salah of a man in his house is a light; whoever wishes should enlighten up his house.*” – [32].

What are the personal benefits of prayer to individual? This is being discussed in Islam; ideology and the way of life [33]. Some of the main benefits are:

I. Punctuality

Prayer teaches strict punctuality as it needs to be offered at appointed times five times daily. One needs to learn to be punctual at every prayer or he will be late or lose the benefit of congregational (jamaah) prayer.

“*Establish regular prayer; for the prayer enjoined on believers at stated times.*” (An – Nisa’: 103)

II. Sense of Duty and Responsibility

Prayer may act as training to develop a sense of duty and responsibility in an individual, first towards his Creator and second towards his fellowmen. That is why prayers have been prescribed 5 times a day, to give supplement and strengthen the spirit of duty. It is necessary for an individual who is appointed to a responsibility to be given adequate training to make him conscious of his duty and responsibility.

III. Character Building

Perseverance and hard work often define success of individual. A man of character does his work persistently and constantly. This is what strength of character mean. Those who work for Islam have *taqwa* and fear of God along with them. They will try to establish truth and justice in the land of their administration. There is no restraint from evil better than prayer as mentioned in the Quran:

“Establish regular prayer, for it restrains from shameful and unjust deeds.” (Al-Ankabut: 45)

IV. Patience and Perseverance

The qualities of patience, endurance and so forth are needed as sources of strength to face hardships and sufferings in life. The prophet is told to be patient in face of hardships and evil forces.

“Therefore be patient with what they say, and celebrate (constantly) the praises of your Lord (through prayer).” (At-Taha: 130)

V. Humility

Humility is engraved in the hearts of believers through the establishment of prayer.

“Indeed, the believers are successful, who humble themselves in their prayer.” (Al-Mu'minun : 1-2)

Believers who offer regular prayer become conscious of their insignificant position before the Majesty of their Creator. This makes them very

humble and modest in their ordinary life.

The values that *salah* bring justifies why the author also include nawafil prayers as one of the main content in the application. In addition, the author also intends to include sunnah prayer such as sunnat rawatib. Reference [34] mention that *nawafil* may be divided into two types: general and specific prayers. The *sunnah ar-ratibah* falls in the specified *nawafil* prayers category which include Fajr, Zuhr, ‘Asr, Maghrib and ‘Isha.

Reference [34] in his books, *Fiqh us Sunnah – Supererogatory Prayer* emphasize that *At-tatawwu’*, or nawafil or supererogatory prayers have been legislated to make up any deficiencies in the performance of fardh *salah*. He also quoted a Hadith reported by Abu Hurairah that the Prophet, peace be upon him, said: “The first thing people will be called to account for on the Day of Resurrection will be prayers. Our Lord will say to the angels although He knows better: ‘Look into the *salah* of My servant to see if he observed it perfectly or was negligent in it. So if he observed in it perfectly it will be recorded to his credit, but if he had been negligent in it in any way Allah will say: ‘See if My servant has any supererogatory prayers.’ Then if he has supererogatory prayers, Allah would say: ‘Make up the deficiency in My servant’s obligatory prayer with his supererogatory prayers.’ Thereafter all his actions will be examined in like manner” (Abu Daw’ud).

Next, the author would also put *qiyam*, *tahajjud*, and *al-mathurat* in the checklists. Allah has ordered his Messenger to perform *Salatul Tahajjud* in the verse 79, surah Al-isra' [34]. Reference [34] continues with 'Abdullah ibn As-Salam reports; "When the Prophet, peace be upon him, came to Madinah, the people gathered around him, and I was one of them. I looked at his face and understood that it was not the face of a liar. The first word I heard him say were: 'O people, spread the salutations, feed the people keep the ties of kinship, and pray during night while the others sleep and you will enter Paradise in peace'."

Al-Mathurat is a compilation of *dhikr* and *dua* derived from the Majestic Quran and authentic hadith, presented in the form of wird (litany) for morning and evening recitation each day. Al-Mathurat was compiled by Imam Shahid Hasan al-Banna, the founder of the Muslim Brotherhood, who strove to establish the perpetual remembrance of Allah and act as protections in all spheres of life.

In summary, these are the items that the author has considered to pre-populate in the daily checklists:

- I. Congregational prayer
- II. Sunnat Fasting
- III. Salah Dhuha
- IV. Salah Witr
- V. Al-Mathurat

4) Proposed Design

The author has gone through repetition design of user interface before coming up with the final one. Figure 8 below is the first version designed by

the author for the main page consisting 4 main buttons which are set target, checklists, settings and performance button. There is also a small button for logging out.

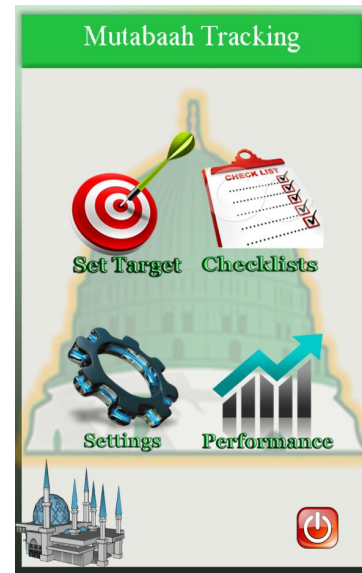


Figure 8: First version of main page

However, after few analyses on how the other developer designs their application, with reference to available application in the Google Play, the author has modified it into the final version as in figure 9 below and the following.

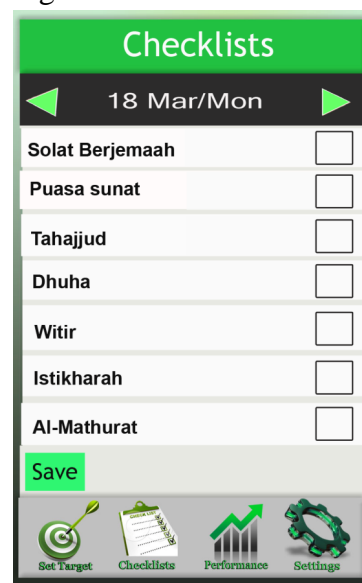


Figure 9: Checklists' button



Figure 10: Set Target button, View tab

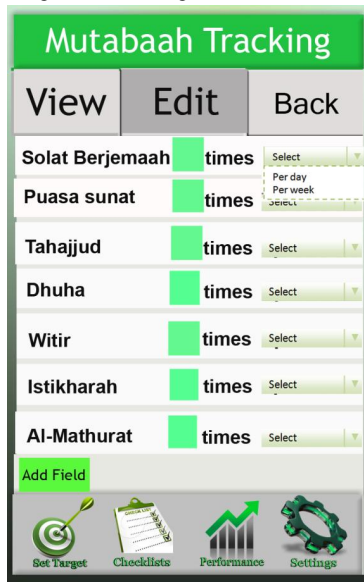


Figure 11: Set target button, Edit tab

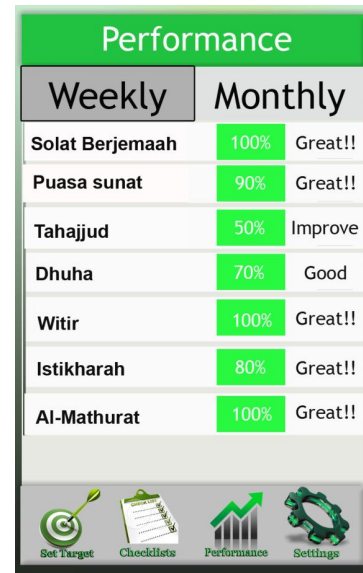


Figure 12: Performance's button

The author has come out with these designs due to close reference with the popular application, Twitter. Figure 13 shows the main page of twitter user interface design which is very professional.

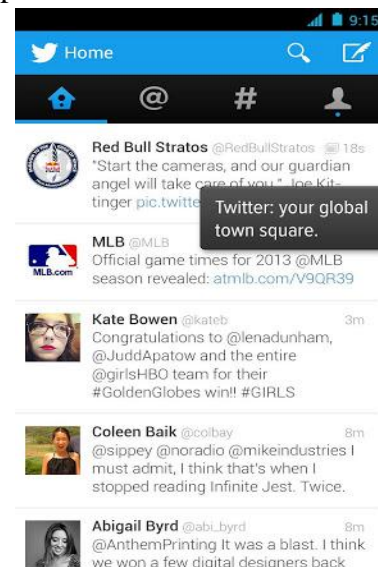


Figure 13: Twitter user interface design

These are the designs that the author tried to follow during implementation and development.

5) Implementation

For the development of mutabaah application, the functionalities that are being figured are as below:

- I. To set target for the week upfront
- II. To check or mark on everyday ‘amal performed
- III. To produce percentage on performance achieved

Major use of iterative prototyping is employed to help users to request changes to the system as it is being built, allowing applications to evolve rapidly [35]. The author realizes that modification may be needed in the future where this methodology is being referenced to. For the core functionality of mutabaah application, it is being represented in the flow chart as below:

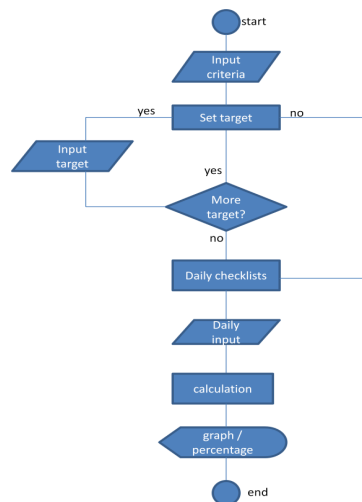


Figure 14: Flow Chart for Mutabaah Tracking Application

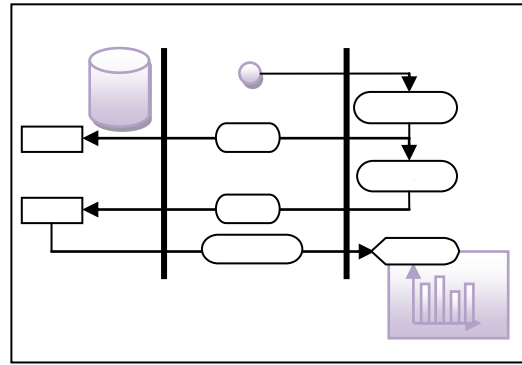


Figure 15: Mutabaah Application's Activity Diagram

Figure 14 above depict activity that takes place in the application from 3 sides which comprises of database, activities itself, and user. During development as well, the author has come out with few java classes which are:

- I. MainActivity.java
- II. Checklists.java
- III. SetTarget.java
- IV. Performance.java
- V. mycalendarview.java
- VI. DBHelper.java

6. Product Features and Functionality

During the development phase, the author has been revising the android tools (set of objects) used in the application for a better user experience over and over again. For the first prototype, the author only focuses on core functionality of this application, which is tracking the ‘amal performed. Thus, a set of lists with few suggestions of ‘amal are used for prototyping. The author has manages to prepare 2 prototype for this project. The first prototype is as in the screenshots below:

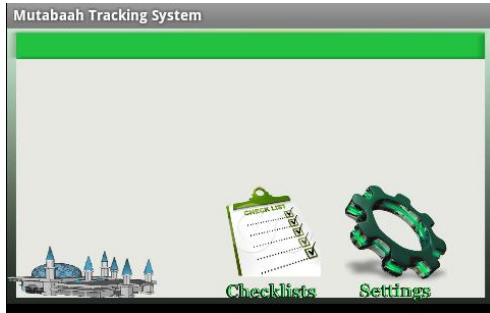


Figure 16: 1st Prototype Main Page

The main page consists 2 buttons which are checklists button and setting button.

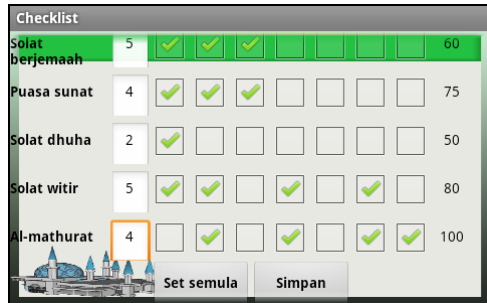


Figure 17: 1st Prototype Checklists button

The above prototype was developed by using AppInventor MIT. The second prototype was developed due to comments and suggestion made by user to improve, during the prototype testing made (refer Section 4).

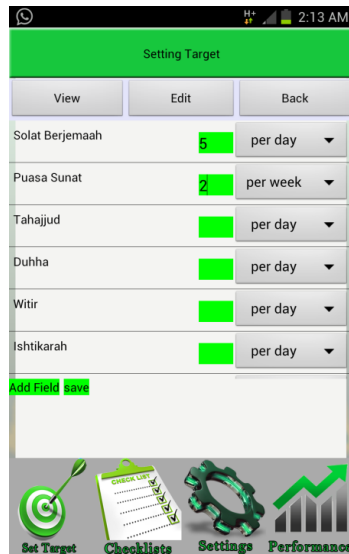


Figure 18: 2nd Prototype, Set Target button

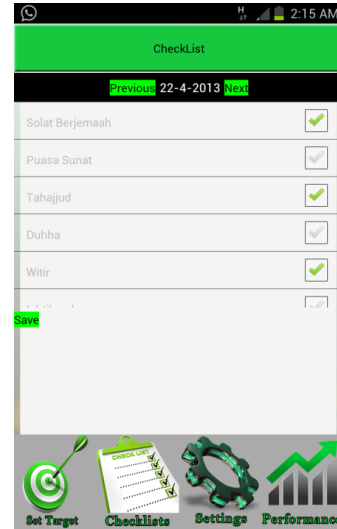


Figure 19: 2nd Prototype, Checklists button

IV. RESULTS AND DISCUSSION

A) Discussion on Survey Questions

A survey has been distributed during FYP I period (before application development) to further support the selection of this application and all results have been captured for data analysis in the beginning phase of project development. Below are the findings and discussions on the questions asked.

1) The word mutabaah

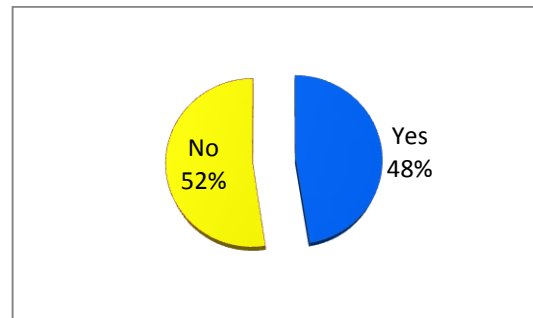


Figure 20: Respondents familiarization with term mutabaah

As shown in figure 20, 39 out of 82 are familiar with the term and a number of 43 unfamiliar respondents. This shows that the respondents are divided almost equally on the familiar and unfamiliar side. Maybe the 39

respondents have been introduced to ‘ibadah performance tracking before. This result might affect whether they track their daily ‘ibadah or not in the following question.

2) *Keep track of ‘ibadah*

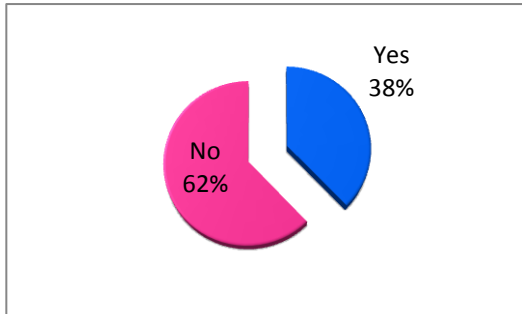


Figure 21: Respondents' percentage of tracking ‘ibadah

According to figure 21, 31 out of 82 respondents mention that they track their ‘ibadah. However, many of them who say they track, give comments that they track it not in a consistent manner. Sometimes they track, sometimes they forget. The rest simply says they are not tracking their ‘ibadah. There is also reason where few respondents stated that they are lazy to track it due to the way of jotting.

3) *The application helps to raise awareness on ‘ibadah*

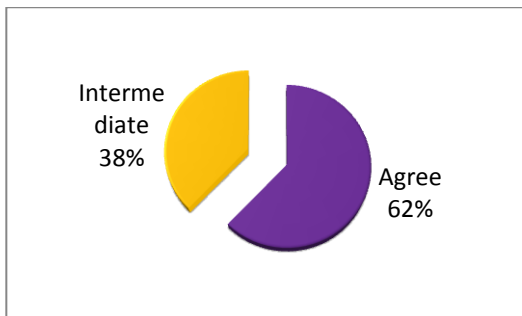


Figure 22: Mobile The application is helpful to raise importance of ‘ibadah

From the results attained, a majority of 51 respondents agree that the promotion of this application will help increase awareness on Muslims’ ‘ibadah. However, the remaining 31

respondents are still in doubt whether this kind of application can attract the Muslims’ interests. All in all, there are no respondents that disagree, which means there is room for the application to develop. This gives good indicator towards this project introductory phase as more than half of the respondents are welcoming such kind of application. Some of the respondents in the open end question did mention the purpose of human creation which has been discussed in Section 2 before.

4) *Fardh Salah reminder*

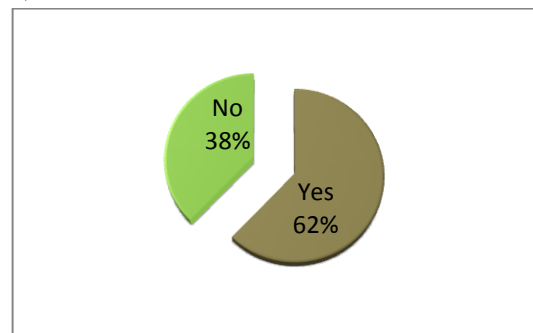


Figure 23: Fardh Salah reminder

The survey also includes questions regarding their fardh *salah*, which ask whether they need reminder or not in performing them. Figure 22 indicates that 31 from 81 respondents say they did not need any reminder, while 51 of the respondents say they need. Thus, adding reminder might be appropriate to attend to this need. The survey also seeks for some suggestion on what respondent (user) want to have in the application that will be considered during development.

B) *Prototype Testing*

The first prototype testing was held on the 27th February 2013, delivering the core functionality of the apps to users. Table 4.2.1 below

summarizes the suggestion and comments from users.

No	Items	Comments	Suggestion
1	User interface	is not professional looking	Improve, may need to compare or take a look on other application interface
2	Functionality	Add more	Can add some more items that user wants
3	Functionality	Revise the interface for daily input	Put calendar view and user can navigate between date
4	Functionality	Add reminders	Add customizable reminders for users
5	Functionality	Performance feature	Translate the percentage of achievement into graphical view

Table 1: Comments and suggestions from users

The comments and suggestions from users has been taken into consideration where the author tried to improve the first prototype into the second prototype as shown in screenshots in Section 3 before. However, not all suggestions are implemented and improved in the second prototype. This is due to time and skills constraint.

V. CONCLUSION & RECOMMENDATION

This Section is to summarize the study process and conclude the findings. It is hoped that the application produced has achieved the objectives of this project as stated in Section 1. Throughout the whole course of Final Year Project, the author has tried to turn the idea into reality with the effort, skills and time given, which comes with limitation. In addition, the author feels honored to run this project as the Final year Project which can contribute towards Muslims' community. The author has gone into depth to understand the user requirements for the application to replace the old-timer handling of mutabaah by observing, interviewing and self-testing on the available

application. This application is hoped to help Muslims to monitor their 'ibadah performance, and increase awareness on its importance, indirectly. In future recommendation, it is good to also maintain the interface layout and pixel adjustments to fit all of other devices on Android devices. It is also good to enhance the feature with customizable. This may consume much time for the development. Besides, maybe this application can be implemented on other platform as well.

ACKNOWLEDGEMENT

First and foremost, my deepest gratitude goes to Allah, The Almighty for giving me the permission, opportunity and blessings to complete this project till the end. In addition, I would like to thank Miss Ainol Rahmah Shazi Binti Sharaani, my Final Year Project Supervisor, for her patient guidance, enthusiastic encouragement and useful critiques during the journey of accomplishing this project. The advice and help that she offers, critique, guide me a lot. It is a great honor to have such a supportive supervisor. I would also like to thank Ustaz Hamid bin Hassan and Ustaz Abdur Rahman bin Mohd Amin for the willingness in giving side guidance on the writing of this project. I would also like to extend my gratitude and thanks to my best friend, Siti Aquiyah Binti Sabri for her continuous support and helps in finishing this report writing. Lastly, I thank my parents, brothers, sisters and friends for their constant support and encouragement throughout this project.

REFERENCES

- [1] A. Rahman, *ISLAM: Ideology and The Way of Life*. London: A.S. Noordeen, 2007, pp.1.
- [2] A. A. Al-Maududi, *Asas-Asas Islam*. Selangor: Dewan Pustaka Fajar, 2006, pp.32.
- [3] F. Yakan, *Apa Ertinya Saya Menganut Islam*. Selango: Dewan Pustaka Fajar, 2008, pp.46.
- [4] R. R. Al-Banjari, *Cara Terindah Untuk Mati*. Selangor: PTS Publications & Distributors Sdn. Bhd, 2011, pp.13.
- [5] F. Yakan, *Apa Ertinya Saya Menganut Islam*. Selango: Dewan Pustaka Fajar, 2008, pp.5. [6] F. Yakan, *Apa Ertinya Saya Menganut Islam*. Selango: Dewan Pustaka Fajar, 2008, pp.103.
- [7] A. H. Al-Latifi & A. Noraine . *Al-Wafi Syarah Hadith 40 Imam An-Nawawi*. Wilayah Persekutuan: Al-Hidayah Publishers, 2009.
- [8] A. H. Al-Latifi & A. Noraine . *Al-Wafi Syarah Hadith 40 Imam An-Nawawi*. Wilayah Persekutuan: Al-Hidayah Publishers, 2009. [9] M. Al-Hasan Biraima, *From Rationality to Righteousness: A Universal Theory of Action*. Sudan: MCB UP Ltd, 1998. [10] I. An-Nawawi, *Terjemah Riyadhus Shalihin*. Jakarta: Pustaka Amani, 1991.
- [11] J. Wortabet, & H. Porter, *HIPPOCRENE STANDARD DICTIONARY: Arabic-English, English Arabic*. New York: The Ungar Publishing Company, 1995, pp.29. [12] M. Siddiqi, *Fatawa: Islam and the Concept of Steadfastness (Istiqamah)*. Retrieved June 24, 2012 from <http://infad.usim.edu.my/modules.php?op=modload&name=News&file=article&sid=9004>
- [13] A. Rahman, *ISLAM: Ideology and The Way of Life*. London: A.S. Noordeen, 2007, pp.64.
- [14] A. A. Al-Maududi, *Asas-Asas Islam*. Selangor: Dewan Pustaka Fajar, 2006, pp.126
- [15] A. Rahman, *ISLAM: Ideology and The Way of Life*. London: A.S. Noordeen, 2007.
- [16] A. Rahman, *ISLAM: Ideology and The Way of Life*. London: A.S. Noordeen, 2007.
- [17] A. A. Al-Maududi, *Asas-Asas Islam*. Selangor: Dewan Pustaka Fajar, 2006.
- [18] A. A. Bilal Philips, *The Fundamentals of Tawheed*. Kuala Lumpur: A.S. NOORDEEN, 2003, pp.23.
- [19] A. A. Al-Maududi, *Asas-Asas Islam*. Selangor: Dewan Pustaka Fajar, 2006.
- [20] A. Rahman, *ISLAM: Ideology and The Way of Life*. London: A.S. Noordeen, 2007, pp.68.
- [21] A. Rahman, *ISLAM: Ideology and The Way of Life*. London: A.S. Noordeen, 2007, pp.69.
- [22] A. Rahman, *ISLAM: Ideology and The Way of Life*. London: A.S. Noordeen, 2007, pp.65.
- [23] A. Sabiq, *Fiqh us Sunnah-Supererogatory Prayer*. United States of America: American Trust Publications, 1989.

- [24] A. Rahman, *ISLAM: Ideology and The Way of Life*. London: A.S. Noordeen, 2007. [25] B. Reed, Android, iOS wipe the floor with rivals, account for 92% of Smartphone shipments in Q4. Retrieved March 26, 2013 from <http://bgr.com/2013/01/28/android-ios-smartphone-shipments-q4-2012-309515/>
- [26] Fuzore, Statistik Penggunaan Mobile OS Di Malaysia, Android Mendahului. Retrieved March 15, 2013 from <http://www.fuzore.com/2012/07/mobile-statistik-penggunaan-mobile-os.html>
- [27] R. Rogers, J. Lombardo, Z. Mednieks, Z. & B. Meike., *Android Application Development: Programming with the Google SDK*. O'Reilly Media Inc, 2009. [28] A. Dennis, B. H. Wixom, & D. Tegarden. *System Analysis & Design with UML Version 2.0*. United States. Leyh Publishing, 2005.
- [29] U. Sekaran., *Research Method for Business-A Skill Building Approach*. New Delhi: John Wiley & Sons Inc, 2006.
- [30] C. Hampton & M. Vilela. *Conducting Surveys*. Retrived March 22, 2013 from http://ctb.ku.edu/en/tablecontents/sub_Section_main_1048.aspx
- [31] A. Rahman, *ISLAM: Ideology and The Way of Life*. London: A.S. Noordeen, 2007.
- [32] A. Sabiq, *Fiqh us Sunnah-Supererogatory Prayer*. United States of America: American Trust Publications, 1989.
- [33] A. Rahman, *ISLAM: Ideology and The Way of Life*. London: A.S. Noordeen, 2007, pp.75-83.
- [34] A. Sabiq, *Fiqh us Sunnah-Supererogatory Prayer*. United States of America: American Trust Publications, 1989, pp.3.
- [35] M. George. *System Analysis & Design*. United States, America: McGraw-Hill Companies, Inc, 2006.