

# DEVELOPMENT OF INTERACTIVE IQRA APPLICATION



UNIVERSITI TEKNIKAL MALAYSIA MELAKA

2020



**UNIVERSITI TEKNIKAL MALAYSIA MELAKA**

**DEVELOPMENT OF INTERACTIVE IQRA  
APPLICATION**

This report is submitted in accordance with the requirement of the Universiti Teknikal Malaysia Melaka (UTeM) for the Bachelor of Computer Engineering Technology (Computer Systems) with Honours.

اونيورسي تيكنيكل مليسيا ملاك by

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

**NUR AFIQAH BINTI ABDULLAH**

**B071710651**

**970601105842**

FACULTY OF ELECTRICAL AND ELECTRONIC ENGINEERING

TECHNOLOGY

2020

**BORANG PENGESAHAN STATUS LAPORAN PROJEK SARJANA MUDA**

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.....  
NUR AFIQAH BINTI ABDULLAH

.....  
TS. WAN NORHISYAM BIN ABD  
RASHID

Alamat Tetap:

Cop Rasmi Penyelia

KAMPUNG PADANG JUAL,  
JOHOL, 73100, KUALA PILAH,  
NEGERI SEMBILAN.



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## DECLARATION

I hereby, declared this report entitled DEVELOPMENT OF INTERACTIVE IQRA APPLICATION is the results of my own research except as cited in references.

*afiqah .*

Signature: .....  
Author : NUR AFIQAH BINTI ABDULLAH  
Date: 16/02/2021



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## APPROVAL

This report is submitted to the Faculty of Electrical and Electronic Engineering Technology of Universiti Teknikal Malaysia Melaka (UTeM) as a partial fulfilment of the requirements for the degree of Bachelor of Engineering Technology Computer (Computer Systems) with Honours. The member of the supervisory is as follow:



## ABSTRAK

Aplikasi Iqra' adalah kaedah lain untuk mempelajari huruf hijaiyah dan cara mengucapkannya. Bermula dengan mengenal huruf itu mungkin pada usia muda, mereka boleh membaca Al-Quran kerana wajib bagi setiap orang Islam. Hampir setiap orang mempunyai telefon pintar dan ia adalah perkara yang paling dekat dengan masyarakat dan ini penting dalam kehidupan seharian kita. Oleh itu, sangat mesra dengan era teknologi masa kini dan mudah digunakan dan belajar Iqra' dengan telefon pintar. Aplikasi ini juga mengandungi bahan pembelajaran lain seperti haiwan, warna, buah dan nombor serta melakukan beberapa latihan kuiz. Aplikasi Iqra' ini dikembangkan menggunakan platform Android Studio. Tujuan projek ini adalah untuk menarik minat kanak-kanak untuk menggunakan aplikasi Iqra' yang interaktif.

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## ABSTRACT

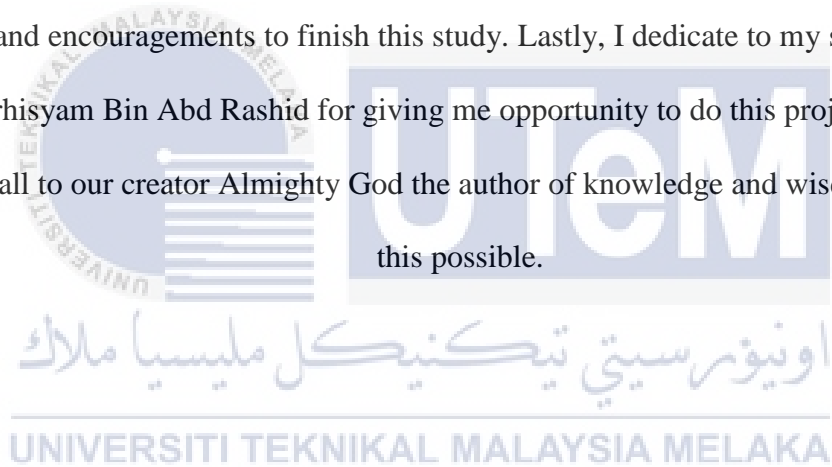
The Iqra' application is the other method to learn the letter of the hijaiyah and how to pronounce them. Starting with knowing the letter as possible at young age, it should be possible them to read Quran because it compulsory for every Muslim. Almost every people have smartphone and it the nearest thing to peoples and it is important in our daily life. So, it very friendly with today's technology era and it will easy to use and learn Iqra' with the smartphone. The application also contain other learning material such as animal, color, fruit and number and have some quiz exercises. This Iqra' application is develop using Android Studio platform. The purpose of this project is to attract children to use the interactive Iqra' application.





## DEDICATION

This thesis I dedicated to my beloved parent, Abdullah Bin Harun and Rohaya Binti Jaffar, who have been or source of inspiration and gave us strength when we give up, who continually provide their moral, spiritual, emotional and financial support. I also dedicate to my friends for being there for me throughout my study's life. I will appreciate all they have done for helping me to complete the project and shared their words of advice and encouragements to finish this study. Lastly, I dedicate to my supervisor, Ts. Wan Norhisyam Bin Abd Rashid for giving me opportunity to do this project. In addition, most of all to our creator Almighty God the author of knowledge and wisdom who made this possible.



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# TABLE OF CONTENTS

	<b>PAGE</b>
<b>TABLE OF CONTENTS</b>	xi
<b>LIST OF TABLES</b>	xiv
<b>LIST OF FIGURES</b>	xv
<b>CHAPTER 1 INTRODUCTION</b>	<b>1</b>
1.1 Research Background	1
1.2 Problem Statement	2
1.3 Objective	2
1.4 Scope of Research	2
1.5 Thesis Organization	3
<b>CHAPTER 2 LITERATURE REVIEW</b>	<b>4</b>
2.1 Introduction	4
2.2 Iqra'	4
2.3 Hijaiyah Letter	5
2.4 Iqra' Learning Method	5
2.5 Android Application	6
2.6 Advantage of Multimedia Learning	6
2.7 Existing Systems and Its Limitation	7

<b>CHAPTER 3 METHODOLOGY</b>	<b>12</b>
3.1 Introduction	12
3.2 Project Methodology	12
3.2.1 Requirements and Analysis Phase	13
3.2.2 System and Software Design Phase	13
3.2.3 Implementation and Unit Testing Phase	14
3.2.4 Integration and System Testing Phase	14
3.2.5 Operation and Maintenance Phase	14
3.3 Project Overview	14
3.4 Project Tools	15
3.4.1 Android Studio	16
3.5 Application Storyboard	18
3.5.1 Main Menu	19
3.5.1.1 IQRA 1	20
3.5.1.2 GAME	21
3.5.1.3 LEARN	22
3.6 Software and Functional Requirements	23
3.7 Gantt chart	24
<b>CHAPTER 4 RESULT AND DISCUSSION</b>	<b>25</b>
4.1 Introduction	25

4.2	Findings	25
4.3	User Interface	30
4.3.1	Main Menu	30
4.3.2	IQRA 1 Content Page	31
4.3.3	GAME Content Page	34
4.3.4	LEARN Content Page	38
4.4	Specification Android Application Testing	40
4.5	Data Analysis	42
4.6	Discussion	43
	<b>CHAPTER 5 CONCLUSION AND RECOMMENDATION</b>	<b>44</b>
5.1	Introduction	44
5.2	Conclusion	44
5.3	Recommendations	45
	<b>REFERENCES</b>	<b>46</b>
	<b>APPENDICES</b>	<b>48</b>

## LIST OF TABLES

TABLE	TITLE	PAGE
Table 3-1	Hardware Tool	16
Table 3-2	Software Tool	16
Table 3-3	Software and Functional Requirement	23
Table 3-4	Gantt chart of the project	24
Table 4-1	Functional Results	40



## LIST OF FIGURES

FIGURE	TITLE	PAGE
Figure 2-1	The Iqra' Book	4
Figure 2-2	Hijaiyah Letter	5
Figure 2-3	Interactive Qur'an Learning	9
Figure 2-4	Real-Time Bilateral Arabic Sign Language Translation App	9
Figure 2-5	Qolam Mobile Apps	10
Figure 2-6	Mari Belajar Iqra' App	10
Figure 2-7	MyIQRA' App	11
Figure 3-1	The Waterfall Model	13
Figure 3-2	Flowchart of Project Overview	15
Figure 3-3	The Android Studio Main Window	17
Figure 3-4	Use Case Iqra' Application	18
Figure 3-5	Main Menu	19
Figure 3-6	Page of IQRA 1	20
Figure 3-7	Page of GAME	21
Figure 3-8	Page of LEARN	22
Figure 4-1	Pie Chart Do You Know Iqra'.	25

Figure 4-2 Pie Chart Do You Know How to Read Iqra'.	26
Figure 4-3 Pie Chart Do You Know About Iqra App.	26
Figure 4-4 Pie Chart That Rate Think the App Can Attract Kids to Use It.	27
Figure 4-5 Bar Chart That Rate the Experience Using Iqra' App.	27
Figure 4-6 Bar Chart That Agree the Current Iqra' App Can Attract Kids to Use It.	28
Figure 4-7 Bar Chart that Agree the Current Iqra' App is Interactive.	28
Figure 4-8 Bar Chart That Agree the current Iqra' App is costly.	29
Figure 4-9 Bar Chart That Agree the Current Iqra' App Does Not Have Any Functions That Can Facilitate Learning.	29
Figure 4-10 Main Menu for Iqra App	30
Figure 4-11 IQRA 1 Content Page	31
Figure 4-12 Page 1 of IQRA 1	32
Figure 4-13 Page 2 IQRA 1	33
Figure 4-14 First page of GAME	34
Figure 4-15 First page of GAME	35
Figure 4-16 Second page of GAME	36
Figure 4-17 Second Page of GAME	37
Figure 4-18 LEARN Content Page	38
Figure 4-19 BUAH Content Page	39



## CHAPTER 1

### INTRODUCTION

#### 1.1 Research Background

Iqra` is the primary term of the Quran which is dependent upon the Prophet (SAW). The term Iqra' is given which means of read. During the time spent teaching and learning of the Al-Quran, distinct approaches are introduced and among the versions is currently using the Iqra' Technique (Rosmani, Wahab and Ibrahim, 2012). This strategy is viable in improving the education of Al-Quran among kids. In order to encourage kids to learn Arabic characters with the Iqra' Technique, there is a need for an effective tool to inspire them.

In daily routine nowadays, smartphone will be the nearest thing to peoples and significant in our day that is regular. There are many others connectivity alternatives out there although with the technology that is growing, it is not simply improvements in calls and messaging (Zahara, 2019). We can do many things at anytime and anyplace by using smartphone where they play a key role in our own life. Another way to deal with the demonstrating and learning idea makes the tool of delivery and gathering of information not exactly the same as traditional media. This includes a change from the learning style. An interactive media application that includes the component of activity, sound and combination is designed to satisfy the prerequisites of learning by using a smartphone (Rosmani, Wahab and Ibrahim, 2012). With the progression of smartphone

innovation, studying and teaching Arabic characters with Iqra' strategy can be engaging enjoyable and attractive.

## 1.2 Problem Statement

Many multimedia applications are not attract the attention of children to learn the Arabic characters. Kids are more socialize to entertainment than learning. Although at present, there are programs that have been constructed to learn Iqra', but programs that have been constructed are not much help as may be drawback applications as less attractive, there are not any functions that can facilitate learning and so forth (Hafezan and Omar, 2015). The other problem is the application is not interactive and need to buy the application to use it.

## 1.3 Objective

There is an objective need to achieve in this project:

1. To design and develop an interactive Iqra' application.
2. To develop a smart device application.
3. To build interactive application that can attract kids.

## 1.4 Scope of Research

Before the program is built, the scope of this project has been researched. The scope project is vital to make sure the program meets the requirements. The scope for this project are:

1. The target user for this particular application is for children.
2. The application which is interactive that can attract children to use it.

3. This application built focus on users notably android users.
4. Simply cover only Iqra' one.

## **1.5 Thesis Organization**

This research have five chapters that include introduction, literature review, methodology, result and discussion, and conclusion and recommendation. First, Chapter 1 is Introduction. In this chapter, the introduction of the project is stated. The chapter of introduction is the background of the project. It is include the research background, problem statement, objective and scope of the project. Next Chapter 2 is Literature Review. Chapter 2 present the review and further detail of concepts about the project, which from some findings had been made during past research. It is need to summarize the journal or the research that have been study. After that, Chapter 3 that is Methodology. Chapter 3 describes the methodology and approach for completing the project. The step of development and the flow chart are included for the entire project. Next, Chapter 4 is Result, Analysis, and Discussion. This chapter show the outcome of the project included test, result and discussion. Lastly, Chapter 5 is Conclusion and Recommendation. The outcomes of the project objectives that be achieve will be outlined in Chapter 5. The chapter lays out a recommendation on development for the suggestions upcoming inventor.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Introduction

This chapter explained the outline of Iqra' application that are used. Moreover, previous study in Iqra' application also listed. Additionally, discussion and further research will be carried out about the elements taken into consideration in developing Iqra' application within this chapter.

#### 2.2 Iqra'

Iqra' is the guide that consisting of 1 to 6 volumes to ease the learning to read Al-Quran with fast and almost. Iqra' is one of those approaches used to learn how to read the Al-Quran (Kurnia Muludi, Kurniawan and Habibullaah, 2015). Iqra' is step-by-step guide to recognizing the letters in Al-Quran from the simple letters to the complex letters.

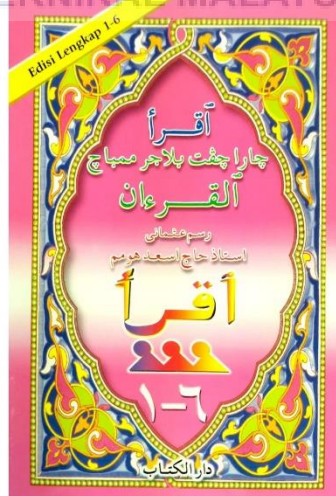


Figure 2-1 The Iqra' Book

### 2.3 Hijaiyah Letter

In Arabic, there are letters in hijaiyah. The letters of hijaiyah is a alphabet of the Al-Quran. Hijaiyah letter is 28 letters long all representing consonants. The hijaiyah letter is the Arabic script as it is codified for writing Arabic (Marzari, 2004). It is written from right to left in a cursive style. The letter can be viewed in Figure 2.2.



Figure 2-2 Hijaiyah Letter

### 2.4 Iqra' Learning Method

There are many way to learn Iqra'. For example, we can learn to read Iqra' with watch video application on YouTube, from book, learn from teachers and use android application. There are many video in YouTube which can help children to learn Iqra'.

Some video have interesting element to attract children to learn how to read Iqra'. Children can watch, listen and check the reading through the YouTube video. Other than that, the children also can learn from book. The book with more colourful and picture can attract children to read it. Next, teacher also can help children to learn to read Iqra'. Lastly, android application also can attract children to learn Iqra'. There are some android application that is interactive which have many features media to engage learning and sing along.

## **2.5 Android Application**

Android applications are pieces of software that are available on an android operating system (Lucic, 2020). They either come along with Android OS pre-installed, or can download and install them after the fact. Android application are organized as component collections. There are four kinds of component, which are activities, services, broadcast receivers and content providers (Peter Barry, 2012). Activities are user-facing components that execute display and input capture. Services are background components that operate independently of any user-visible operation. Broadcast receivers are components that respond to broadcast announcements that are network-wide and listen to. Content providers are components, which make application information available to device components and software.

## **2.6 Advantage of Multimedia Learning**

Multimedia is the computer information that can be represent with video, animation, image, text and audio. There are some benefits of multimedia learning. First, the user can get deeper learning. According to the research, the advantage of multimedia is it

takes advantage of the brain's ability to create connections between verbal and visual representations of content (Chioran, 2016). It is important because the children can prepare for the future where the problem solving and higher-level thinking is require. Next, the advantage of multimedia learning is it can increase the positive emotions. Children will learn better and will be more proactive when the mood during the learning process is good (Chioran, 2016). Lastly, the advantage of multimedia learning is it can gains and holds the children's attention. The children will focus at a long time to learning with multimedia component.

## 2.7 Existing Systems and Its Limitation

No.	Title	Explanation
1.	Design Interactive Qur'an Learning for Kindergarten Based on Android (Thabrani and Natsir, 2018)	This app can enter their name. There are three choice that user can interact which are 'Belajar Iqra', 'Belajar Sholat' and 'Belajar Wudhu'. This app do not have special feature like audio. Additionally, it have quizzes function.
2.	Android Mobile App for Real-Time Bilateral Arabic Sign Language Translation Using Leap Motion Controller (Eqab and Shanableh, 2017).	The application has features built for real-time bilateral Arabic sign language translation. It use leap motion controller to connect to the mobile phone. The controller can track the hand movement using camera.

		It also have voice to sign language translation and sign language quiz game.
3.	Arabic Vocabulary Mobile Apps : Combining Dictionary Use And Contextual Guessing Strategies (Ghafar and Noor, 2018).	This application is mobile game-based to learn Arabic vocabulary using dictionary and contextual guessing. There also quiz and can get information such as meaning when click the word.
4.	Evaluating IQRA' Multimedia Learning Application (Rosmani, Wahab and Ibrahim, 2012)	This application have three module which is Arabic characters pronunciation, character recitation and quizzes. The Arabic pronunciation will show the character with their pronunciation. For the quiz, the user can test their understanding after they have learn from the application.
5.	My Iqra' Learning Mobile Application for Kids (Danish Affan, 2019)	This application have two module which are 'Belajar' and 'kuiz'. In the 'Belajar' page, there are buttons, which point to the levels. The first level is learning about hijaiyah letter. The second level is learning about 'baris' and the last level is combination of the letter. For the 'kuiz' content, there are three choice that are 'teke bunyi', 'memori' and 'golf'.