

## BORANG PENGESAHAN STATUS TESIS<sup>^</sup>

JUDUL: ACTION GAME FOR MOBILE PHONES : SILAT LAGENDA

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Action game for mobile phones : silat lagenda / Allah Ditha  
Khan Abdul Rim.

## **ACTION GAME FOR MOBILE PHONES : SILAT LAGENDA**

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**This report is submitted in partial fulfillment of the requirements for the  
Bachelor of Computer Science (Interactive Media)**

**FACULTY OF INFORMATION AND COMMUNICATIONS TECHNOLOGY  
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2006**

## DECLARATION

I hereby declare that this project report entitled  
**ACTION GAME FOR MOBILE PHONES : SILAT LAGENDA**

is written by me and is my own effort and that no part has been plagiarized  
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## DEDICATION

*To my beloved parents, sisters and friends...*

## ACKNOWLEDGEMENT

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

First and foremost, I would like to thank ALLAH S.W.T for giving me the strength, patience, courage and determination to complete this report and project. Our prophet Muhammad s.a.w said *“and wherever selects a path towards gaining knowledge, ALLAH will make it a path guiding to paradise”* and said *who don't thank people, don't thank ALLAH*. Here, i want to send my thanks to anyone who for their contribution towards this report and project.

The success of this Projek Sarjana Muda(PSM) 1, will not be archive without the help of my supervisor, En. Ahmad Naim for his kindness support and guidance. He had teach me a lot and guide me for the succes of this project. Next, i would like to thank my family for their support and courage along the completion of this project. Their pray will always be with me for the success.

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## ABSTRACT

This project is about to develop an action game for mobile phones. The title of the game is Silat Lagenda. This game will use flash lite as its platform and can be play at all series 60 mobile phones and any mobile phones which can suppot flash lite. Nowadays, there's a lot of action game, but none related to our culture or tradional martial art. By developing this game, it will add a new collection of action game and will help to represent our culture around the world. This game also will help younger generation to learn and know their culture and traditional heritage.

Since this game will be develop on flash lite platform, a lot of factors must be considered before developing this game. Any mobile application is differ from computer application. The most clearly diffrences is the screen size. In mobile phones application development, the screen size must be set to each type or series of phones to suit the screen size. If the screen size is not set correctly, then there will be problem for displaying the application. And for this game, the game was develop for series 60 mobile phones.

An analysis had been done on how to develop a good game. Resouces had been collect from all over and mostly from internet. There are a few rules and guidelines on how to develop a good game. For the game design, the main character is 'Tuah' a malay warrior. On this game, player will go for a journey of finding the Keris of 'Taming Sari'. Along the journey, player will have to fight the enemies and only three life were given. If Tuah die more than three times, then player have to play the game from the start again.

By the development of this game, hoped that it will satisfy the user and they will enjoy playing this game. User and player from other country will see and get to know our culture. This will help to promote Malaysia and our culture to the world. And for our generation itself, it will help us not to forget our own culture and make it to be remembered in a fun and enjoyable way.

## ABSTRAK

Projek ini adalah untuk menyiapkan satu permainan aksi untuk telefon mudah alih. Tajuk bagi permainan ini ialah 'Silat Lagenda'. Permainan ini akan menggunakan Flash Lite sebagai platform dan boleh dimainkan pada semua telefon mudah alih siri 60 dan mana-mana telefon mudah alih yang menyokong perisian Flash Lite. Pada masa kini, terdapat banyak permainan aksi, tetapi tiada satu pun yang berkaitan dengan budaya dan warisan kita. Dengan adanya permainan ini, ia akan menambah lagi koleksi permainan aksi dan sekali gus dapat membantu memperkenalkan tradisi dan budaya kita kepada dunia luar. Permainan ini juga akan membantu generasi muda untuk lebih mengenali dan mempelajari seni warisan kita.

Permainan ini akan menggunakan Flash Lite sebagai platform dan banyak faktor perlu di ambil kira untuk mereka permainan ini. Ini adalah kerana perisian telefon mudah alih adalah berbeza dengan perisian komputer. Dan yang paling ketara sekali ialah saiz skrin. Dalam membangunkan perisian telefon mudah alih, saiz skrin perlu ditetapkan mengikut jenis dan model telefon bimbit. Sekiranya saiz skrin yang ditetapkan tidak sama dengan saiz skrin sebenar, skrin tidak dapat memaparkan maklumat dengan betul. Untuk permainan ini, ia direka khas untuk telefon mudah alih siri 60.

Kajian dan analisa telah dijalankan untuk menghasilkan permainan yang berkualiti. Berbagai maklumat telah dikumpul dari pelbagai sumber terutamanya daripada internet. Terdapat beberapa garis panduan bagi menghasilkan permainan yang berkualiti. Dalam permainan ini, watak utama adalah 'Tuah' seorang pahlawan melayu. Pemain akan melalui satu pengembaraan untuk mencari keris Taming Sari. Sepanjang pengembaraan, pemain akan berlawan dengan musuh dan hanya tiga nyawa diberikan. Sekiranya pemain habis menggunakan ketiga-tiga nyawa tersebut, permainan akan ditamatkan dan pemain terpaksa bermain dari mula semula.

Dengan adanya permainan ini, diharap ia dapat memberi kepuasan kepada pengguna dan kegembiraan semasa bermain permainan ini. Pemain dari negara lain akan dapat melihat dan mempelajari warisan dan budaya kita disamping dapat mempromosikan Malaysia dan budaya kita kepada dunia luar. Dan kepada generasi kita sendiri, diharap dengan adanya permainan ini, ia dapat membantu kita untuk tidak melupakan seni warisan dan budaya melayu kita dengan menggunakan cara yang menyeronokkan.

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# CHAPTER I

## INTRODUCTION

This chapter will describe the whole project briefly. It is very important to understand this project before proceed to next chapter which will be discussed in more details. The most important part to understand is the project background, problem that bring out this project, the objectives of this project, scope for this project and project significant. This chapter will only give an overview for this project and more details for this project will be discuss on next chapter.

### 1.1 Project Background

Nowadays, mobile phone had become more and more popular. The mobile industry moves even more quickly than the PC industry. The techonology for mobile phone also had become more and more advance everyday. Modern mobile phones are small computers, with limited processing power by desktop standards, but power enough to run a small game. Most of the people today, have mobile phone, and its already become part of their life. The most popular application that being use by user on mobile phones is game. It is because by using mobile phone, they can play games everywhere they go.

This project is to develop an action game called 'Silat Lagenda'. This game will use flash lite as it platform. This game is intended to be use for series

60 mobile phones which support flash lite. This project was develop using flash lite rather than other technologies like BREW (Binary Runtime Environment for Wireless), C++, Java, XML, Flash, J2ME is because this new flash lite technology for mobile can give more features and function for the application developed compare to the others. The advantages using flash lite, are :

- Developer Side
  - a. Easy to develop
  - b. Various type of content
  
- Client / User Side
  - a. More attractive
  - b. Easy to use and user friendly
  - c. Smaller size
  - d. Doesn't need any installation
  - e. Better quality display

Today's phones can also consider as a networked computers which has the efficiency of sending and receiving digital data. Primarily geared for voice data, they can send and receive other kinds of data as well. This inherent ability for sharing information offers a unique opportunity to design games where players can interact with other players, even on the other side of the world. In terms of processing power and capabilities, the current generation phones is close to the second generation of arcade machines, early 1990s home computers, and early handheld game machines.

## 1.2 Problem Statement

Most of the mobile game now are international, and there are no mobile game that represent our own culture. All the game that we have now use other martial art like Karate, Taek Wan Do, Boxing and other fighting and self defense skills. Hence, this game will use Silat as its martial art technique as Silat is one of our heritage culture. By developing this game, it will help our new generation not to forget our own culture. By playing this game, they will be exposed to the silat technique and get familiar with it. The character for this game will wear our traditional costume and use 'Keris' as its weapon.

Other than that, this game also will help to promote malaysia and its culture to the outsider. Since this game will use english language, it can be play by people all around the world. By playing this game, they will see something new, and see our culture inside the game. It will gain their interest and get to know our culture. Maybe before this they don't even know what is Silat, as Silat is not as popular as other martial art. So this game is one of the way to promote and exposed our heritage culture to the world.

## 1.3 Objectives

The objectives of the project are as follows :

- **Develop action game for mobile phones**

Develop an action game for mobile phones series 60 using Flash Lite. The game will be an action game and can be play on mobile phones.

- **Attractive and fun game**  
The game interface is very attractive, and it will attract user to play the game. Its attractive game design and colourful character, background and interesting storyline make the game fun to play.
- **Can transfer and play on mobile**  
The game can transfer into mobile phone using cable, bluetooth or other wireless devices.
- **Easy to use and control**  
The game developed is easy to use and easy to control, with simple menu interface and easy to understand instruction. Few button used to control the game and this will make it easy to control.
- **Doesn't need any installation**  
The game developed will be ready to play and doesn't need any installation on the mobile phones to play the game. The game is ready to play after it is saved into the mobile phones.

#### 1.4 Scope

There are few scopes for this project, which are :

- **The game is only for series 60 mobile phones**  
The game developed can only be play on series 60 mobile phones and mobile phone which support flash and have flash lite player. The screen size is 176 x 208 pixels.



- **Single player action game**  
This game only for single player, and doesn't support multiple player. This player doesn't support multiple player game using bluetooth or other wireless technology.
- **Suitable for age 7 and above**  
This game will only suitable for anyone with age 7 and above because there will be instruction and game menu selection. The menu selection and instruction will require them to make selection and understand the instruction in order to play the game.
- **Target user will be anyone who use english language**  
The language for this game is english, so the target user also will be anyone who use english language in order to understand the instruction and game menu.

## 1.5 Project Significance

This action game for mobile will give user a new experience playing flash platform game. The advantages using flash lite on the developer side, they can develop an interactive game with a small budgets. Other than that, shelf lives are shorter, development cycles are reduced and team sizes are smaller. While on the user side, user can enjoy more features and elements on the games. Besides, by using flash lite to develop game, this flash platform game doesn't need any installation to play the game. User can get the game and ready to play. With the creation of this game, it will add a collection to the traditional game in the market.

## 1.6 Conclusion

As a conclusion, this action game will use flash lite platform and can only be use on series 60 mobile phones and other mobile phones which can support flash lite. At the end of the project, hope that all the objectives can be achived and the game can be develop successfully. Other details about the development of the game will be discuss on chapter two.

## **CHAPTER II**

### **LITERATURE REVIEW AND PROJECT METHODOLOGY**

#### **2.1 Introduction**

This chapter will briefly review specific factors that and research which have been done to get usefull information for developing this project. Other than that, a research also been done to get information on how to develop an interactive game and on game planning. All the information are gather from various sources include books and internet. The suitable methodology to develop this game is using instructional design. In this chapter also, there will be a list of the software and hardware requirements that will be used for this project.

#### **2.2 Fact and Finding**

All the information in fact and findings are gather from various sources such as book, article and internet. The in formation in fact and finding are information which is related to the mobile game development and flash lite application on mobile.

### 2.2.1 Introduction to Mobile Game Development

Modern mobile phones are small computers, with limited processing power by desktop standards, but power enough to run a small game. If you have a recent phone, you have more processing power in your pocket than ran the Lunar Lander. Today's phones are also by their very nature networked computers, efficiently sending and receiving digital data. Primarily geared for voice data, they can send and receive other kinds of data as well. This inherent ability to share information offers a unique opportunity to design games wherein players interact with other players, perhaps even on the other side of the world.

In terms of processing power and capabilities, the current generation of Java™-enabled phones is close to the second generation of arcade machines, early 1990s home computers, and early handheld game machines. RAM is generally limited—typically 128 KB to 500 KB—although some smart phones, like Nokia 3650, have as much as 4 MB of memory. They also have, by comparison to PCs, limited input and display capabilities: small screens (many still black and white), keypads optimized for phone dialing rather than text entry, and limited sound handling. What they lack in raw power they more than make up for in connectivity and sheer installed base. ([http://sw.nokia.com/id/3f4d7e31-f200-46db-8f10-611f953485e8/Mobile\\_Game\\_Intro\\_v1\\_1.pdf](http://sw.nokia.com/id/3f4d7e31-f200-46db-8f10-611f953485e8/Mobile_Game_Intro_v1_1.pdf))

## 2.2.2 How Games Are implemented for Mobile Phones

There are few ways on how to implement mobile game into the mobile phones. The ways are by embedded games from factory, SMS games, browsing games, C++ applications and J2ME and other interpreted languages. ([http://sw.nokia.com/id/3f4d7e31-f200-46db-8f10-611f953485e8/Mobile\\_Game\\_Intro\\_v1\\_1.pdf](http://sw.nokia.com/id/3f4d7e31-f200-46db-8f10-611f953485e8/Mobile_Game_Intro_v1_1.pdf))

### 2.2.2.1 Embedded Games

Some games are programmed to run natively on a phone's chipset, installed on the phone at the factory, and shipped with it. Snake, available on many Nokia phones for more than four years, is the most famous example. New embedded games cannot be installed by the consumer, and they are becoming less prevalent.

### 2.2.2.2 SMS Games

Short Message Service (SMS) is used to deliver short text messages from one phone to another. Users typically pay about 10 cents per message. SMS games are played by sending a message to a phone number that corresponds to the game provider's server, which receives the messages, performs some processing, and returns a message to the player with the results. SMS is not a particularly good technology for games, because it is dependent on text entry by the user, and thus is, in essence, a

command-line environment. It is also expensive for a game of any depth, since a mere 10 exchanges with the server will cost a user \$1 or more.

### **2.2.2.3 Browsing Games**

Just about every phone shipped since 1999 includes a Wireless Application Protocol (WAP) browser. WAP is, in essence, a static browsing medium, much like a vastly simplified form of the Web, optimized for the small form factors and low bandwidth of mobile phones. WAP games are played by going to the game provider's URL (usually through a link on the carrier's portal), downloading and viewing one or more pages, making a menu selection or entering text, submitting that data to the server and then viewing more pages.

One version of WAP (1.x) uses a unique markup language called WML and allows users to download collections of pages called decks. The new version of WAP (2.x) uses a subset of XHTML, delivers one page at a time, and allows better control over display formatting. Either version of WAP offers a friendlier interface than SMS, and is generally less expensive for consumers who pay for airtime only, rather than by the message. But it is a static browsing medium; little or no processing can be done on the phone itself, and all gameplay must be over the network, with all processing performed by a remote server.

Phones will continue to contain WAP browsers, and developers may find WAP useful to deliver more detailed help or rules to players than can be contained in a game application, since most games are still subject to strict memory limits. However, game developers are moving to the richer capabilities of the J2ME platform.

#### **2.2.2.4 J2ME and Other Interpreted Languages**

Java 2 Micro Edition (J2ME) is a form of the Java language that is optimized for small devices such as mobile phones and PDAs. Nokia (and most other phone manufacturers) have made a strong commitment to Java phone deployment. Tens of millions of Java-enabled phones are already in consumers' hands. J2ME is limited by comparison to desktop Java, but it vastly improves the ability of mobile phones to support games. It allows far better control over the interface than either SMS or WAP, allows sprite animation, and can connect over the air network to a remote server.

Because of its capabilities and the widespread and growing deployment of Java-enabled phones, it is a natural for mobile game development today, and we will examine J2ME game development in detail here and in subsequent documents. J2ME is not the only interpreted language deployed on phones, but it is an industry standard backed by many manufacturers and therefore offers a large and growing installed base. Some proprietary interpreted languages have significant regional presence, including Qualcomm's Binary Runtime Environment

for Wireless (BREW) in North American and a standard called GVM supported by some Korean carriers. Games initially developed for the large J2ME installed base can be recoded in these proprietary languages if a sound business case presents itself.

### **2.2.2.5 C++ Applications**

Mobile games can also be developed in C++, a language that compiles to native machine code. Compiled languages in general offer better control over the UI, direct access to the phone's hardware, and greater speed for the same processing power when compared to an interpreted language. Development in C++ enables rich, high-performance games. C++ developers can target Series 60 Platform devices. Series 60 Platform is a multi-vendor standard for one-handed smart phones that supports application development in Java MIDP, C++, and browsing environments.

### **2.2.3 How Mobile Game Development Differ from Conventional Game Development**

There are a few factors that makes mobile game development differ from conventional game development. The factors are like team size, budget, development cycles, network devices, open devices and deploiment. ([http://sw.nokia.com/id/3f4d7e31-f200-46db-8f10-611f953485e8/Mobile\\_Game\\_Intro\\_v1\\_1.pdf](http://sw.nokia.com/id/3f4d7e31-f200-46db-8f10-611f953485e8/Mobile_Game_Intro_v1_1.pdf))