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MOBILE GAME – GRAB MORE MONEY

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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 COMMUNICATION TECHNOLOGY
UNIVERSITI TEKNIKAL MALAYSIA MELAKA
2007**

DECLARATION

I hereby declare that this project report entitled
MOBILE GAME – GRAB MORE MONEY

is written by me and is my own effort and that no part has been plagiarized
without citations.

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DEDICATION

To my beloved parents...

To my only brother...

To all family members...

To my dedicated lecturers and teachers...

To my supportive friends...

ACKNOWLEDGEMENTS

Assalamualaikum w.b.t,

First and foremost I would like to thank Pn. Farah Nadia Bte Azman, supervisor of Project Sarjana Muda (PSM), for the advice, suggestion and critics in improving my report writing and completing this project.

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ABSTRACT

Mobile Game – Grab More Money is a quiz game developed for mobile Symbian operating system platform with Flash Lite technology. This game has four main menus which are Play Game, High Score, Instruction and Option. Although it uses money value as player's level of achievement, it does not offer any amount of money to the player. It can be played by teenagers and adults who love to challenge themselves with raw facts about Malaysia. ADDIE methodology is used as the development method. It comprises five phases which are analyze, design, development, implement and evaluation. By using several techniques in gathering information about mobile games, current system study, observation, reading materials and discussion with supervisor has been done. Research on mobile gaming characteristics, mobile gaming platform, games genre and games mechanics helps much in developing this project. Besides, review on the existing game, Who wants to be a Millionaire describes several deficiency of the game such as no high score and lack of interface design.

ABSTRAK

Mobile Game – Grab More Money merupakan permainan berbentuk kuiz yang dibangunkan untuk telefon bimbit yang mempunyai sistem pengoperasian Symbian berserta teknologi *Flash Lite*. Permainan ini mempunyai empat menu utama iaitu *Play Game*, *High Score*, *Instruction* dan *Option*. Walaupun permainan ini menggunakan nilai wang sebagai tahap pencapaian pemain, ia tidak menawarkan sebarang ganjaran dalam bentuk wang. Ia boleh dimainkan oleh golongan remaja dan dewasa yang mahu menguji pengetahuan mereka berkenaan Malaysia. Metodologi ADDIE digunakan sebagai metodologi pembangunan permainan ini. Ia mempunyai lima fasa iaitu fasa kajian, fasa rekabentuk, fasa pembangunan, fasa pelaksanaan dan fasa pengujian. Dalam memperoleh maklumat kajian, beberapa kaedah telah dijalankan termasuk mengkaji sistem sedia ada, pemerhatian, melalui bahan bacaan serta perbincangan dengan penyelia projek. Kajian berkaitan karakter permainan telefon bimbit, platform telefon bimbit, genre permainan dan mekanik permainan. Di samping itu, kajian ke atas permainan sedia ada, *Who wants to be a Millionaire* turut dijalankan bagi mengenalpasti kelemahan seperti tiada simpanan markah tertinggi dan kekurangan dalam rekabentuk antaramuka.

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LIST OF ABBREVIATIONS

NO.	ABBREVIATION	DESCRIPTION
1	OS	Operating system
2	ICT	Information Technology and Communication
3	PC	Personal computer
4	PDA	Personal Digital Assistant
5	GPS	Global Positioning System
6	SMS	Short Message Service
7	MMS	Multimedia Messaging Service
8	GSM	Global System for Mobile
9	CDMA	Code Division Multiple Access
10	CDC	Connected Device Configuration
11	CLDC	Connected, Limited Device Configuration
12	BREW	Binary Runtime Environment for Wireless
13	RPG	Role-playing Game
14	PSM I	<i>Projek Sarjana Muda I</i>
15	PSM II	<i>Projek Sarjana Muda II</i>
16	J2ME	Java 2 platform Micro Edition
17	GIF	Graphic Interchange Format
18	JPEG/JPG	Joint Photographic Expert Group
19	PNG	Portable Network Graphic
20	TIFF	Tagged Image File Format

21	BMP	Bitmap
22	EPS	Encapsulated PostScript
23	WMF	Windows Metafile
24	ADC	Analog-to-Digital Converter
25	WAV	Waveform audio format
26	AIFF	Audio Interchange File Format

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CHAPTER I

INTRODUCTION

1.1 Project Background

Nowadays, mobile usage among teenagers increase as mobile like hand phone just not only for calling and messaging, it also offers several function such as gaming, internet surfing, video conferencing, music listening and many more. Each hand phone has its mobile games and this is one of the major attractions to attract people to have a hand phone.

Before this, most people assume that games only for fun and can make us neglected our work. Even our parents scolded us if we are too focusing playing the game. But today, there are different scenario as games can give impact to the social, economy, culture and politic to a country. For example in United Kingdom, game is the most popular than entertainment industry such as film and music. Games industry increase 100% while film is 30% and music industry decrease to 4.5%.

Grab More Money is a mobile game application based on Who Wants to Be a Millionaire concept. This game will challenge players with general knowledge and information about Malaysia. Once they have successfully answered the question, they will go to the next question. Each question has it own value which is represented by money. The more they answer the question, the more money they will get.

1.2 Problem statement

Several problems relating with the existing mobile games have been figured such as most of the games focused on skills and actions but less games on IQ test and knowledge based. Besides, based on the existing computer game, Who wants to be a Millionaire, the game not offered any players' ranking board or their level of achievement. Sometimes these games are more to attract children to be the players rather than the adults.

1.3 Objective

The objectives of developing mobile game-Grab More Money are:-

- To develop a mobile knowledge-based game.
- To develop a program with user-friendly interface.
- To apply multimedia and interactive elements such as audio, sound and graphic to the project.

1.4 Scope

The scopes of this project are:-

- It is suitable for teenagers and adults who always spend their time playing with mobile games and like to answer quiz based games or like to challenge their knowledge.
- Suitable for hand phones with Symbian operating system and Flash Lite technology.
- Several modules have been discovered for this game are as stated in Table 1.1 below.

Table 1.1: Project's modules

Module	Description
Comprehension	Test player's knowledge about Malaysia.
Lifeline	Give chances to player if they cannot answer the question.
Ranking	Rank player based on the highest level

1.5 Project significance

Mobile game – Grab More Money can be supported with Symbian OS platform hand phones and can be played either by teenagers or adults. This game will test player's knowledge relating with Malaysia culture, entertainment, history, general knowledge and many more. Player will be ranked according to the highest level of money they get by playing this game.

1.6 Expected output

From this project, hopefully it will achieve the objectives and scopes in developing the games. Besides it will increase player knowledge relating with Malaysia by answering the question.

1.7 Conclusion

Mobile Game – Grab More Money is an interactive mobile game based on Who Wants to Be a Millionaire concept but it more focus on Malaysian culture and

environment. It can be played on hand phone with Symbian operating system and Flash Lite technology.

This game will test player with their general knowledge about Malaysia and will be divided into several categories such as entertainment, history, places and many more. They will be ranked by the highest money value that they have collected.

For the next chapter, it contains literature review of several journal related with mobile games and methodology that will be use to develop the game.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

Literature review is a comprehensive survey of publications in a specific field of study or relates with research done to get more understanding about the project. In this section all fact findings related with any keyword of this project will be stated and explained clearly. Besides review on existing game, Who wants to be a Millionaire, helps in understanding the flow and process involved.

Project methodology is a set of procedure or method used in managing a project depends on the project type. ADDIE methodology will be used as it will guide developer to develop a project systematically by following each phase in sequence.

Identifying project requirement will make the project easy to develop by fulfill those needs such as software and hardware requirement. While milestone and gantt chart will always keeps the developer on track.

2.2 Facts and Findings

This section contains domain that relates with project, review on journals, websites and books relating with mobile gaming and review on existing game- Who wants to be a Millionaire have been made.

2.2.1 Domain

Mobile game is categorized under ICT in mobile application. This is because the game will be developed under Symbian operating system handphones platform. Player will be challenge with knowledge and information about Malaysia. Player will be ranked based on amount of money they get in the game. The more they knew about Malaysia, the more pointers they will get.

2.2.2 Existing System

For existing system, reading materials revision and existing system review are made that relate with the project. Reviews are on introduction to mobile gaming, mobile gaming platform, mobile games genre, games mechanics and existing personal computer (PC) game – Who Wants to be A Millionaire.

2.2.2.1 Introduction to mobile gaming

Mobile game has become the most popular and fastest growing market in game industry. However, it also is the most challenging product to develop. Unlike other game type, mobile games must be run in hand-held device like cell phones, PDAs and many more.

Before begin the development process, developer should realize that to develop a successful mobile game, it should contain one of these characteristics which are easy to learn, interruptible, rich social interactions, take advantage of mobile innovations and no explicit content.

The games will be easy to learn as it should be playable the moment it is download. Player will not spend a lot of time studying an operation manual of a game. So the game should be simple. The basic characteristic of mobile devices is multitasking. Users can play the game anywhere in anytime whether when they are waiting for a taxi or time break in a meeting. The same device they use for messaging, organizing schedule, working presentation and many more. A good mobile game with interruptible characteristic should provide entertainment for short time periods and allow user to switch mode from game to work.

No matters how good the design of a game is it would be boring if player found out the same pattern in every level. It is interesting to apply rich social interaction in mobile gaming by involving other players as it can increase the intelligence and randomness of a game.

Furthermore, there are a lot of mobile innovations from day to day as for example Global Positioning System (GPS), Short Message Service (SMS) / Multimedia Messaging Service (MMS). It is good if developer can apply those innovations in their games.

As there are no limitation on gender and ages in playing the games, developer should develop a game with no explicit or sexual content that can influenced any kind of players.

2.2.2.2 Mobile gaming platform

A mobile game is a game played in mobile phone, PDA and other handheld devices. Normally these mobile games provided by phone manufacturer or can be downloaded from the internet via infrared, Bluetooth or any other connection cable and then it will be saved in memory card or mobile internal memory.

There are different platform for mobile games such as Microsoft Windows Mobile, Symbian OS, J2ME, BREW and many more. Microsoft Windows Mobile is developed by Microsoft Corporation. It can be found on devices including Motorola, Palm, Dell, HP, Motorola, Palm, and i-mate. Windows Mobile powered devices are available on Global System for Mobile communications (GSM) or Code division multiple access (CDMA) networks.

Example of game developed for Microsoft Window Mobile is Kokonotsu- Super Sudoku. Kokonotsu which pronounced as coconuts is a puzzle game consists of nine 3x3 boxes forming an 81-field matrix. The aim is to place nine different objects in each of the nine 3x3 boxes, each horizontal row and each vertical column as well as both major diagonals.

This platform is designed for mobile device produced by Symbian Ltd formed in 1998. Based on In-Stat / MDR report in August 2004, Symbian operating system will dominate smart phone market five years from now and followed by Windows platform. Symbian has the most partners and licenses of any mobile OS, including Nokia, Sony Ericsson, Motorola, Siemens, Samsung and others.

Example of game developed for this platform is called Boat Way which is an adventure game. Player must reach destination safely on time, escape from dangerous sharks, crocodiles, fish and logs in the river. The river is full of dangerous species and mountain rocks so sometimes player have to sail the boat slower and faster. A Player