TARIK UPIH: THE MALAY TRADITIONAL RACING GAME

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# TARIK UPIH: THE MALAY TRADITIONAL RACING GAME

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The thesis is submitted in partial fulfilment of the requirements for the award of Bachelor of Information Technology (Game Technology)

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Jun 2017

# DECLARATION

I hereby declare that this project report entitled

**TARIK UPIH: THE MALAY TRADITIONAL RACING GAME**

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

STUDENT NAME: _____ DATE: 28 August 2017

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I hereby declare that I have read this project report and found this report is sufficient in term of the scope and quality for the award of Bachelor of Computer Science (Game Technology) With Honours.

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# DEDICATION

To my beloved family, lecturers and friends.

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## Abstract

The aim of this project is to introduce Malay traditional game which is Tarik Upih to especially teenagers in digital platform game. Most Malaysian teenagers nowadays tend to forget the Malay traditional games. Thus, this game can be a good platform to create awareness about the existence of Malay traditional game and elements among the teenagers nowadays. This game is developed using Unity 5. This game is a racing game which targeted on teenagers aged from 15 to 20 years old. This game consist of three level which has different difficulties. Player has to race with the AI until the finish line. Whoever reaches first, they win. Player can use double jump and power up which increase their speed to help them win the game. This game included Malay traditional element such as baju melayu, kain pelikat, songkok and especially Tarik Upih. The objective of this project is to study more detail about the Malay traditional game which is Tarik Upih. Next, to develop a racing game that include Malay traditional game element and environment. Lastly, to test the effectiveness in using game to deliver Malay traditional elements. The expected result is to let people know more what is Tarik Upih and have fun at the same time.

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## Abstrak

Matlamat projek ini adalah untuk memperkenalkan permainan tradisional Melayu iaitu Tarik Upih kepada remaja terutama dalam permainan platform digital. Kebanyakan remaja Malaysia hari ini cenderung untuk melupakan permainan tradisional Melayu. Oleh itu, permainan ini boleh menjadi platform yang baik untuk mewujudkan kesedaran tentang kewujudan permainan tradisional Melayu dan unsur-unsur dalam kalangan remaja sekarang ini. Permainan ini dibangunkan menggunakan Unity 5. Permainan ini adalah permainan perlumbaan yang disasarkan kepada remaja berumur 15 hingga 20 tahun. Permainan ini terdiri daripada tiga tahap yang mempunyai kesukaran yang berbeza. Pemain perlu berlumba dengan AI sehingga garisan penamat. Sesiapa yang sampai dahulu di garisan penamat, mereka menang. Pemain boleh menggunakan lompatan berganda dan mengambil penambahan kuasa yang meningkatkan kelajuan mereka untuk membantu mereka memenangi permainan. Permainan ini termasuk unsur tradisional Melayu seperti baju melayu, kain pelikat, songkok dan terutamanya Tarik Upih. Objektif projek ini adalah untuk mempelajari lebih lanjut tentang permainan tradisional Melayu iaitu Tarik Upih. Di samping itu, permainan ini juga dibangunkan untuk memasukkan unsur permainan tradisional Melayu dan persekitarannya. Akhir sekali, objektif permainan ini juga adalah untuk menguji keberkesanan dalam menggunakan permainan untuk menyampaikan unsur tradisional Melayu. Hasil yang diharapkan adalah untuk membolehkan orang lebih mengetahui apa itu Tarik Upih dan berseronok dalam masa yang sama.

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# TABLE OF CONTENTS


| CHAPTER | CONTENT | PAGE |
|---|---|---|
| | **DECLARATION** | iv |
| | **DEDICATION** | v |
| | **ACKNOWLEDGEMENT** | vi |
| | **ABSTRACT** | vii |
| | **ABSTRAK** | viii |
| | **TABLE OF CONTENTS** | ix |
| | **LIST OF TABLES** | xii |
| | **LIST OF FIGURES** | xiii |
| **CHAPTER I** | **INTRODUCTION** | |
| | 1.1 Introduction | 1 |
| | 1.2 Problem Statement | 2 |
| | 1.3 Objective | 2 |
| | 1.4 Scope | 3 |
| | 1.5 Project Significance | 3 |
| | 1.6 Conclusion | 3 |
| **CHAPTER II** | **LITERATURE REVIEW AND PROJECT METHODOLOGY** | |
| | 2.1 Introduction | 4 |
| | 2.2 Domain | 4 |
| | 2.2.1 Malaysian traditional game | 4 |
| | 2.2.2 Tarik upih game | 5 |
| | 2.2.3 Racing game genre | 5 |
| | 2.2.4 Combination of racing game and Malay traditional element | 6 |
| | 2.2.5 Software Requirement | 9 |
| | 2.3 Existing System | 9 |


UNIVERSITI TEKNIKAL MALAYSIA MELAKA

2.3.1 Fun Run Arena 10
2.3.2 Super Mario 3D Land 11
2.3.3 Comparison of Existing System 11
2.4 User Acceptance Research 11
2.5 Game Experience Research 12
2.6 Project Methodology 12
2.7 Project Requirement 14
2.7.1 Software Requirement 14
2.7.2 Hardware Requirement 15
2.8 Conclusion 15

**CHAPTER III ANALYSIS**

3.1 Requirement Analysis 17
3.1.1 Project Requirement 18
3.1.2 Software Requirement 18
3.1.3 Hardware Requirement 19
3.2 Project Schedule and milestone 20
3.3 Conclusion 21

**CHAPTER IV DESIGN**

4.1 Introduction 22
4.2 Game Architecture 22
4.3 Game Design 23
4.3.1 Core Mechanics 23
4.3.2 Flow board Design 24
4.3.3 User Interface Design 25
4.4 Game Art 31
4.4.1 Game Asset 31
4.4.2 Camera Model 31
4.4.3 Audio/Sound Effect 31
4.5 Conclusion 31

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

| | | |
|---|---|---|
| **CHAPTER V** | **IMPLEMENTATION** | |
| | 5.1 Introduction | 32 |
| | 5.2 Game Art Creation | 32 |
| | 5.2.1 Production of Text | 33 |
| | 5.2.2 Production of Graphics | 35 |
| | 5.2.3 Production of Audio | 37 |
| | 5.3 Integration of Game Component | 38 |
| | 5.4 Implementation Status | 44 |
| | 5.5 Conclusion | 44 |
| **CHAPTER VI** | **TESTING AND EVALUATION** | |
| | 6.1 Introduction | 45 |
| | 6.2 Test Plan | 45 |
| | 6.2.1 Test User | 46 |
| | 6.2.2 Test Environment | 46 |
| | 6.2.3 Test Scheduled | 47 |
| | 6.3 Test Implementation | 47 |
| | 6.4 Test Result and Analysis | 48 |
| | 6.5 Conclusion | 52 |
| **CHAPTER VII** | **PROJECT CONCLUSION** | |
| | 7.1 Observation on Strengths and Weaknesses | 53 |
| | 7.1.1 Project Weaknesses | 54 |
| | 7.1.2 Project Strengths | 55 |
| | 7.2 Propositions for Improvement | 56 |
| | 7.3 Project Contribution | 57 |
| | 7.4 Summary | 57 |
| **REFERENCES** | | 58 |
| **APPENDIX A** | **GANTT CHART & MILESTONE** | 60 |
| **APPENDIX B** | **QUESTIONNAIRE** | 63 |


UNIVERSITI TEKNIKAL MALAYSIA MELAKA

# LIST OF TABLES


| Table | Title | Page |
|---|---|---|
| Table 2.1 | Comparison of existing system | 12 |
| Table 3.1 | Analysis of system to be developed | 17 |
| Table 3.2 | Software requirement | 18 |
| Table 5.1 | Production of text | 33 |
| Table 5.2 | Production of audio in game | 38 |
| Table 6.1 | Location of testing | 46 |


UNIVERSITI TEKNIKAL MALAYSIA MELAKA

# LIST OF FIGURES


| Figures | Title | Page |
|---|---|---|
| Figure 2.1 | Fun Run Arena Game Loading Screen | 10 |
| Figure 2.2 | Screenshot of Super Mario 3D Land Gameplay | 11 |
| Figure 2.3 | Game Development Life Cycle (GDLC) | 13 |
| Figure 4.1 | Game Architecture (Adaptation from google) | 23 |
| Figure 4.2 | Flowboard of the Game | 24 |
| Figure 4.3 | Main Menu | 25 |
| Figure 4.4 | Instruction | 26 |
| Figure 4.5 | How to Play | 27 |
| Figure 4.6 | Cutscene 1 | 27 |
| Figure 4.7 | Cutscene 2 | 28 |
| Figure 4.8 | Cutscene 3 | 28 |
| Figure 4.9 | Cutscene 4 | 29 |
| Figure 4.10 | Gameplay | 29 |
| Figure 4.11 | End game | 30 |
| Figure 4.12 | Daun upih | 31 |
| Figure 5.1 | Player character | 35 |
| Figure 5.2 | Ai character | 36 |
| Figure 5.3 | Character 3D model | 37 |
| Figure 5.4 | Speed of the character's movement and count text | 38 |
| Figure 5.5 | Player movement and win condition | 39 |
| Figure 5.6 | Player jump | 40 |
| Figure 5.7 | Ai movement and win condition | 41 |
| Figure 5.8 | Ai jump condition | 42 |
| Figure 5.9 | Power up which can increase the character's speed | 43 |
| Figure 6.1 | Example of data 1 | 48 |
| Figure 6.2 | Example of data 2 | 49 |
| Figure 6.3 | Data of game experience | 50 |
| Figure 6.4 | The user acceptance | 52 |


UNIVERSITI TEKNIKAL MALAYSIA MELAKA

# CHAPTER I

# INTRODUCTION

## 1.1 Introduction

It is the age of gadget and video games and many of us have caught on to these. However, no matter how popular the latest technology is, there is that one element that seems to be missing from most games conceived by new technology. It is the physical and personal human interaction. Malaysia has many types of traditional games such congkak, Tarik upih, and batu Seremban. One of the traditional games that most people especially teenagers tend to forget nowadays is Tarik upih. Tarik upih is one of most popular games or activities that has been introduced in Penang, Malaysia. This game which generations of Malaysians grew up playing may not be unfamiliar to the younger generation of Malaysians who are more affluent and thus preoccupied with modern entertainment, distractions and technology to pass their time. Traditional games like Tarik upih promoted interaction among the races, and inevitably unity and understanding among the diverse societies in Malaysia.

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In this new era with new technology enhancement, people especially teenagers do not play or even do not know what is Tarik upih. Thus, to introduce traditional game like this, the use of technology must be involved because this is the easiest way to approach teenagers nowadays. The development of new computers and smartphone allow people to develop more apps and games for the user to use or play. Tarik upih is a traditional game which can be introduce in modern technology using digital games

or video games. Developing game which include Malaysian traditional element such as Tarik upih is a good and new way to introduce to teenagers nowadays about the long forgotten traditional game. Developing game like this is crucial to the society because they will expose more to the traditional game that has been played over century and they can also appreciate the Malaysian culture.

## 1.2 Problem statement(s)

Malaysian traditional game is rarely known by the people at the young age especially teenagers. Due to the mass grow of technologies in the world including Malaysia, the cultural game is almost forgotten by our own local people. Besides, kids who are exposed to these technologies are barely know what is the benefits of technologies rather than only playing game for fun but never care about the lesson learned from playing the games. Therefore, this game will be developed to give the exposure to the children about Malaysian traditional element and teach them how to play so that they know about their own culture.

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## 1.3. Objectives

The aim of this project is:

- To study more detail about the Malay traditional game which is Tarik Upih.
- To develop a racing game that include Malay traditional game element and environment.
- To test the user acceptance and game experience after playtesting the game.

### 1.4. Scope

The target user for this project are teenagers range between 15 to 20 years old. These teenagers in the age range is chosen for this project because they tend to forget the traditional games and they are more exposed to the new technology especially games. The project content focuses on Malaysian traditional game and it is a standalone PC game. The game is developed by using Unity 5 in C# language.

### 1.5. Project Significance

The project will be benefits to the teenagers who are the target user as they are exposed to the traditional game while having fun at the same time. This game will not only introduce about the Tarik upih but also help to preserve the Malay traditional element using the digital platform game.

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### 1.6. Conclusion

As a conclusion, I expect this project will be a platform for the player to know what is Tarik upih game and also appreciate the Malaysian culture. I do hope that this project will achieve the entire objectives stated earlier. The next chapter to be developed discusses about literature review and project methodology.

# CHAPTER II

# LITERATURE REVIEW

## 2.1. Introduction

The chapter will describe in details about the related literature review that have been written earlier to support the project title. Literature review is referring to the study on collection of published materials in selected area of studies such as articles, journals, thesis, online library, technical documents and case studies. Literature review should give theoretical base for research and support the research topic through analysis, summarize and evaluation of the literature.

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## 2.2. Domain

### 2.2.1 Malaysian traditional games

Malaysian traditional games are played for over century. However, with the new technologies are introduced, these games are forgotten. Thus, developing games which include Malaysian traditional elements or game is very crucial to exposed to the teenagers and preserved the culture at the same time.

According to Graburn (2000) tradition refers to the cultural features which in situations of change were to be continued to be handed on, thought about, preserved

and not lost. While, as stated in Encyclopaedia Britannica (n.d.) children's game is any of the amusements and pastimes of children that may involve spontaneous, unstructured activity, based mostly on fantasy and imagination, or organized games with set rules". Therefore, traditional children's games are any pastime games played by the children that is passed from one generation to another as one of the cultural heritage of own perspective race.

### 2.2.2 Tarik upih game

Tarik Upih is a traditional game that is usually played by children. Upih is frond/ "base" of Areca's leaves. Normally, when this frond became old, it will fall to the ground. Frond that fell to the ground will be used to play Tarik Upih game. Areca's leaves from the fronds are cast and been made upstream or place to pull the sheaths. Tarik Upih can be played by two or more individuals depending on the size of the Upih. An individual will be a handyman pull and the others just have to sit on the Upih. (Samsudin, M.A., 2014).

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### 2.2.3 Racing game genre

Racing game genre is the competition between player and opponent to reach the finish line first or compete the time with any type land, air or sea vehicles. It is either in the first person or third person perspective. The goal of this game is simple but the challenges and obstacles will make it harder for player to win the game. (Hanna, P., 2017).

### 2.2.4 Combination of racing game and Malay traditional element

Tarik upih will be use as the vehicle for racing in this game. The game will also not give the element of fun to the player but also will deliver the Malay traditional element as they play the game. This game introduced Tarik upih in 3D platformer view. The environment and the game asset is including Malaysian element such as the main character will be racing while wearing baju melayu and songkok.

### 2.2.5 Software Requirement

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**i. Game Engine**

Unreal Engine is a game engine for the developers to develop a game that its genre is more to action or adventure game. The engine focuses more on the realism which is provided with a high graphic in game development. The Unreal Engine is more suitable for a 3D game as it can execute a high performance of game which is the compatibility is the same whether in PC or mobile platform. The engine does not offer a flexible 2D features but it is still possible to develop a 2D game by using a Paper 2D. The engine provides C++ language and a visual scripting which is easier for the non-programmer to develop a game without writing a line of code technically but to only apply the logic in the game development process.

Unity is a game engine that supported both 2D and 3D games which is diverse in game genres. The engine is suitable for the beginners or any developers who want to develop a simple game. The engine has a good graphic and it is compatible to the PC or mobile platform. Unity has a great community

support which it provides forums and unity answers. It uses C#, Unity Script and Boo for the game development language. C# language can be executed faster and it consists of some language features which provide significant advantages. The language can be scripted by using Microsoft Visual Studio which provides a better code completion feature than MonoDevelop.

**ii. Game art**

Adobe Photoshop is suitable for editing simple image which is in pixel based art work. However, in Adobe Photoshop, it is not suitable for the scalable image as it is in pixel form and it will affect the resolution of the image.

Adobe Illustrator is used for creating and editing vector illustrations. Vector images can be scaled in any size but it still maintains the resolution of the image.

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### iii. Game Development Tool

Audacity is a free, simple an open source and cross-platform audio software for multi-track recording and editing. It has features which are device toolbar to manage multiple recording, level matters to monitor volume, timer record, and record the sound at very low latencies. The software is also providing effects such as changing the tempo without altering the pitch, altering the frequencies and reducing noise in the background.

Autodesk Maya is a 3D animation software application developed by Autodesk that enables video professionals who work with animated film, television programs, visual effects, and video games to create highly professional three-dimensional (3D) cinematic animations.

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## 2.3. Existing System

### 2.3.1 Fun Run Arena

**Figure 2.1 Fun Run Arena Game Loading Screen**

Fun Run Arena is a racing game which take the legendary gameplay of classic running race games and adds a new feature which is combat racing style game. Player has to race against other real players while escaping obstacles. They must sabotage other players in order to win the race. The camera perspective is a 2D platformer from side view.

### 2.3.2 Super Mario 3D Land

**Figure 2.2 Screenshot of Super Mario 3D Land Gameplay**

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Single-player 3D platformer for the Nintendo 3DS, developed and published by Nintendo in November 3, 2011. The gameplay of Super Mario 3D Land is the same as the old Mario which is requires the protagonist to run and jump between surfaces (i.e. platforms) while avoiding game objects and the detrimental effects of gravity. This game combines two and three-dimensional gameplay, thus making it unique.

### 2.3.3 Comparison of existing system

**Table 2.1 comparison of existing system**

| | Fun Run Arena | Super Mario 3D Land |
|---|---|---|
| Screenshot | | |
| Platform | Android<br>iOS | Nintendo 3DS |
| Genre | Combat racing game | 3D platformer game |
| Features | Player has to race against other real players while escaping obstacles until reaches finish line. | This game requires the protagonist to run and jump between surfaces (i.e. platforms) while avoiding game objects and the detrimental effects of gravity. |

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## 2.4 User Acceptance Research

User acceptance can be defined as the demonstrable willingness within a user group to employ information technology for the tasks it is designed to support. Thus, acceptance theorists are less concerned with unintended uses or non-discretionary use of technologies and more interested in understanding the factors influencing the adoption of technologies as planned by users who have some degree of choice. By developing and testing models of the forces shaping user acceptance, human factors researchers seek to influence the process of design and implementation in a manner that will minimize the risk of resistance or rejection by users. (Dillon and Morris, 1996)