

**ADOPTING ADVENTURE AND PLATFORM GAME TO REACH FOR  
LARGER USERS AGE GROUP**



UNIVERSITI TEKNIKAL MALAYSIA MELAKA

## BORANG PENGESAHAN STATUS TESIS

JUDUL: ADOPTING ADVENTURE AND PLATFORM GAME TO REACH FOR LARGER USERS AGE GROUP

SESI PENGAJIAN: 2016/2017

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**ADOPTING ADVENTURE AND PLATFORM GAME TO REACH FOR  
LARGER USERS AGE GROUP**



ADILAH BINTI MUSTAFA KAMAL

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

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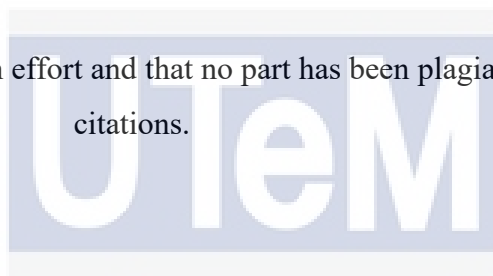
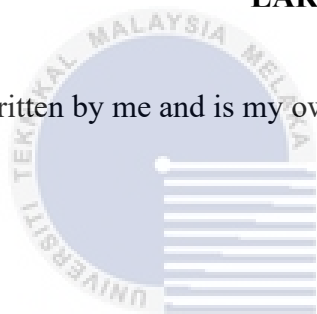
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## DECLARATION

I hereby declare that this project report entitled

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



STUDENT NAME : ADILAH BINTI MUSTAFA KAMAL Date : 25 / 8 / 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, lectures and friends.



## ACKNOWLEDGEMENT

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## ABSTRACT

Adventure games are usually focus to adult and platform games are normally focus to the children. Therefore, there is a need to combine both game genre for larger user age group. Aimed of this project is to develop adventure platform game for more generic audience. Besides that, this project is to study the game mechanics for both genre of adventure and platform game in order to combine it into a single new game. This project is develop using Unreal Engine 4 software in mobile platform. There are two software used in this project which are Unreal Engine 4 to develop the game and Photoshop is to designing asset. Hardware used for this project are mobile devices, mobile controller, PC, joystick and earphone. The target audience for this game is age range from 5 years old to 20 years old.

The entire project development such as project requirement, design, implementation, testing and result will be discussed in this report. The project requirement such as hardware, software and other requirement. Design are the biggest part in game development, therefore the time spent are longer than other part. Implementation will cover all the logic system and how to transfer game into mobile. After that, the game will be at alpha testing first and proceed with beta testing. The data is finalize and record to get the result of project.

## ABSTRAK

Permainan pengembaraan biasanya berfokuskan kepada ahli dewasa dan permainan platform pula menjadi buruan kepada kanak-kanak. Oleh itu, kedua-dua jenis permainan ini perlu digabungkan bagi mendapat kumpulan pengguna yang lebih besar. Tujuan projek ini dihasilkan adalah untuk membangunkan permainan platform pengembaraan untuk pengguna yang lebih umum. Selain itu, projek ini adalah untuk mengkaji mekanik permainan bagi kedua-dua jenis permainan iaitu permainan pengembaraan dan permainan platform untuk digabungkan menjadi satu permainan baru. Projek ini dibangunkan menggunakan perisian Unreal Engine 4 dalam platform mudah alih. Terdapat dua perisian yang digunakan dalam projek ini iaitu Unreal Engine 4 untuk membangunkan permainan dan Photoshop adalah untuk merekabentuk aset. Perkakasan yang digunakan untuk projek ini pula adalah peranti mudah alih, pengawal mudah alih, PC, joystick dan fon telinga. Sasaran pengguna bagi permainan ini adalah umur dari 5 tahun hingga 20 tahun.

Keseluruhan pembangunan projek seperti keperluan projek, reka bentuk, pelaksanaan, ujian dan keputusan akan dibincangkan dalam laporan ini. Keperluan projek adalah seperti perkakasan, perisian dan keperluan lain. Reka bentuk adalah bahagian terbesar dalam pembangunan permainan. Oleh itu masa yang dihabiskan adalah lebih panjang berbanding bahagian lain. Pelaksanaan akan meliputi semua sistem logik dan bagaimana cara untuk memindahkan permainan ke dalam mudah alih. Selepas itu, permainan akan berada pada ujian alpha terlebih dahulu dan diteruskan pada ujian beta. Data ini dimuktamadkan dan direkodkan untuk mendapatkan hasil projek.



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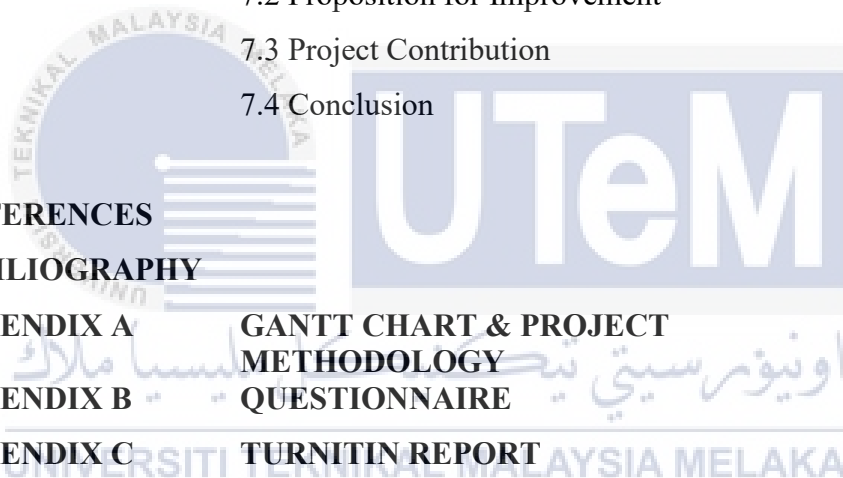
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## CHAPTER I



### INTRODUCTION

# UTeM

#### 1.1 Project Background

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The game that will be developed is called Cuki Adventure. Cuki is the name given for the character and the terms of adventure means that cuki need to explore the game through each levels. Cuki adventure is a combination between adventure and platform game genre in a larger scope of age group. The reason of combining these game genre together is to make the game for more generic audience and to introduce platform game to adults by creating adventure element. As we can see, majority of children are familiar with platform game while an adult are popular with adventure game. In order to develop a game that can be play for larger scope of age group, the good idea is to combine adventure game and platform game into a single new game.

This project is for entertainment to user and improve user skills while playing this game. During the adventure, Cuki will go through several obstacles. There are three level and each level has different environment, obstacles and challenges. Cuki aim is to pass starting from level one to another levels. The game mechanic for both genre is based on study that has been done before create levels. Some of the study are adopt into this project to develop a new game. Thus, the project is evaluate between the target audience to get the best result whether this project is appropriate for the target or not.

The game was developed for mobile platform using Unreal Engine 4 software. Currently, mobile platform are chosen because of it is in small size and easy to bring. User could play the game anywhere and in almost every environment. Furthermore, this type of game genre is more suited to play with mobile because it give interaction between user, mobile and the game itself. Instead of play with touch screen, user also can play with wireless controller which is bluetooth devices to move the character. This game only compatible in single player mode and do not support for multiplayer gaming experience.

## 1.2 Problem Statement

Nowadays, platform games are very popular among children because of its simplicity while adventure game is commonly focusing for adult and is not necessary for children. Therefore, there is a need of combination between adventure and platform game for more generic audience.



## 1.3 Objectives



This project emphasis on the following objectives:

- To study the mechanic of adventure and platform games.
- To develop game mechanics of adventure and platform games into a single new game.
- To evaluate a game for larger users age group.

## 1.4 Goals and Genre

The purpose of this project is for entertainment and to introduce adventure platform game for larger scope of audience. This game also will adopt game mechanics from both game genres in order to produce one single game. Genre for this game is adventure platform game in mobile.



## 1.5 Game Features

This game is more suited for audience from 5 to 20 years old because the concept of this game is easier to understand without instructions. The main game feature is player need to complete level in order to move to another level. Player cannot choose which level to play. Victory condition for this game is when player success goes to the next level by passing through the challenges and obstacles.

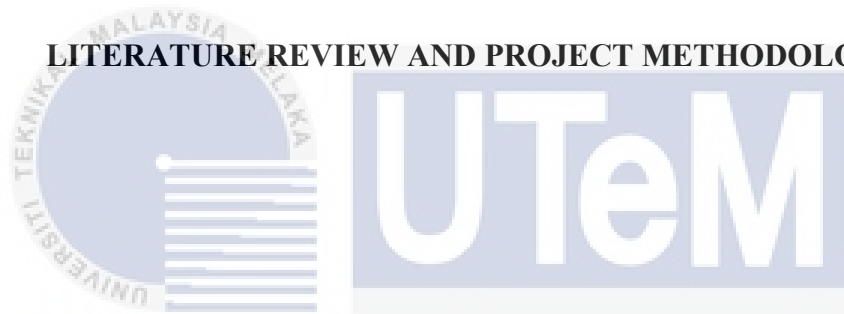
## 1.6 Conclusion

In conclusion, this project was called Cuki Adventure. Cuki Adventure is a kind of game that contain platform and adventure element. This project is using mobile platform and can be play with the touch screen or using controller. Based on the target audience, this game should be play between 5 to 20 years old.

This project was develop based on the objectives state to ensure that the project working effectively and would not have problem. The main objective for this project are first to study the mechanic of adventure and platform games. Second is to develop game mechanics of adventure and platform games into a single new game. Last objectives is to evaluate a game for larger users age group.

## CHAPTER 2

### LITERATURE REVIEW AND PROJECT METHODOLOGY



#### 2.1 Introduction

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This topic reviews about literature that have been written by others which have similarity with the title of this project. These review will be compared and differentiate between all those paper. The comparison are based on the meaning of adventure game and platform game.

This topic also will clarify about the genre of adventure and platform games, the related games produce and project methodology in creating this project. Some studies have been made to explain about the privilege of adventure platform game and how it effects to the audience. There are three project methodology that have been used to complete the game project.

## 2.2 Genre

The main game genre for this project is adventure platform games because players need to jump from one place to another and facing with several challenges during the adventure. This game is a 2 dimension, 2D game.

Game is an entertainment that can give enjoyment and fun for a long period of time. It has a lot of story in multiple aspects (Sicart, 2008). There are many different perception among gamer and author about the meaning of game adventure. Referring to the LaReau and Vockell, adventure game can be a type of series and bring along player into the journey (LaReau and Vockell, 1989). SherWood said that throughout the world player can simulate and make decision also lead player to creativity in imaginary world (SherWood, 1988). According to Balajthy, world is a real and can be part of imaginary. Variety of world can be either in past, now or future (Balajthy, 1986).

Game platform is involving physically movement like run and jump. These both is the common physical used because character need to jump from one platform to another platform until the character reach final destination. The platform can be either object or floor (Michael Klappenbach, 2017). It is been introduce by gamer that the main concept of game platform is jumping from one point to another (LoG-Sacrament, 2016). Dragonblade01 give the same feedback about game platform which is when player run and jump into platform to achieve something. Another things that very familiar with platform games is collectible items, power ups and time limit to fulfill level requirement (Dragoneblade01, 2016)

## 2.3 Existing Game

There are several games that related for this game project including Super Mario Bros, Little Big Planet, Rayman Adventure and Terraria. Super Mario Bros, Rayman Adventure and Terraria are developed for mobile android platform but Little Big Planet is for PlayStation 3. These four games has slightly different on the game genre which is Super Mario Bros is a platformer, Little Big Planet is a puzzle platformer, Rayman Adventure is a platform adventure while for Terraria is an action adventure but these game also can be mention as a survival game.

Table 2.1 shows the comparison of five game that has similarity with Cuki Adventure. Things that has been compared are game dimensions, mode, challenges and platform.

### 2.3.1 Comparison of Existing Game

There are several categories to compare between Cuki Adventure and games as mention above.