THE LOST EXCALIBUR – TURN-BASED ROLE-PLAYING GAME USING A CHARACTERIZATION OF WEAPONS INVENTORY SYSTEM, STORY-DRIVEN SYSTEM, AND REAL-TIME PVE ACTION



# **BORANG PENGESAHAN STATUS LAPORAN**

JUDUL: [THE LOST EXCALIBUR – TURN-BASED ROLE-PLAYING GAME USING A CHARACTERIZATION OF WEAPONS INVENTORY SYSTEM ]

SESI PENGAJIAN: [2022/2023]

Tarikh: <u>25/6/2023</u>

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Selangor.	Nama Penyelia

Tarikh: 22/9/2023

# THE LOST EXCALIBUR – TURN-BASED ROLE-PLAYING GAME USING A CHARACTERIZATION OF WEAPONS INVENTORY SYSTEM

# AMIR MUAZZAM BIN JOHARI



This report is submitted in partial fulfillment of the requirements for the Bachelor of Information Technology (Game Technology) with Honours.

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

# FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY UNIVERSITI TEKNIKAL MALAYSIA MELAKA

# **DECLARATION**

I hereby declare that this project report entitled

# [THE LOST EXCALIBUR – TURN-BASED ROLE-PLAYING GAME USING A CHARACTERIZATION OF WEAPONS INVENTORY SYSTEM, STORYDRIVEN SYSTEM, AND REAL-TIME PVE ACTION]

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

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Date: 25/6/2023

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I hereby declare that I have read this project report and found this project report is sufficient in term of the scope and quality for the award of Bachelor of [Computer Science (Software Development)] with Honours.

SUPERVISOR: Date: 25/6/2023
(ASSOCIATE PROFESSOR TS. DR. HAMZAH ASYRANI BIN SULAIMAN)

**DECLARATION** 

# **DEDICATION**

I am deeply grateful to everyone who has played a significant role in the development of "The Lost Excalibur". Your unwavering support, guidance, and contributions have been crucial to its success.

I would like to extend my heartfelt appreciation to my parents, who have been endlessly encouraging and supportive of my passion for game development. Their belief in my abilities has been the foundation of my journey, and I dedicate this achievement to them.

I am also indebted to my supervisor, Associate Professor Ts. Dr. Hamzah Asyrani Bin Sulaiman, for their guidance, expertise, and mentorship throughout the development of "The Lost Excalibur". His insightful feedback and constructive criticism have helped shape the game into its current form. I am grateful for the opportunities to learn and grow under their supervision.

I am also grateful to my classmates and peers who have been instrumental in this project. Their collaboration, ideas, and suggestions have significantly contributed to the success and quality of "The Lost Excalibur". The camaraderie and teamwork we shared have been a constant source of inspiration, and I am grateful for their support and friendship.

Finally, I would like to thank Universiti Teknikal Malaysia Melaka (UTeM) for providing the necessary resources and a conducive environment for my development and learning. The educational experiences and opportunities I have received at UTeM have played a pivotal role in shaping my skills and knowledge in game development.

To all those who have played a part, whether big or small, in the creation of "The Lost Excalibur", I extend my heartfelt appreciation. Your contributions, feedback, and encouragement have been invaluable, and I dedicate this project to each and every one of you.

Sincerely, Amir Muazzam bin Johari



# **ACKNOWLEDGEMENTS**

I would like to express my deepest gratitude to everyone who has contributed to the development and completion of my project, "The Lost Excalibur". Your unwavering support, guidance, and contributions have played a vital role in its success, and I am sincerely thankful for your involvement.

I want to thank my parents for their constant encouragement and belief in my abilities. Your support has been the foundation of my journey, and I dedicate this achievement to you.

I am also indebted to my supervisor, Associate Professor Ts. Dr. Hamzah Asyrani Bin Sulaiman, for their expertise and mentorship throughout the development of "The Lost Excalibur". Your feedback and guidance have shaped the game into its current form, and I am grateful for the opportunities to learn and grow under your supervision.

To my classmates and peers, thank you for your collaboration, ideas, and suggestions. Your contributions have significantly contributed to the success and quality of the project, and I am thankful for your support and friendship.

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I would also like to express my appreciation to Universiti Teknikal Malaysia Melaka (UTeM) for providing the necessary resources and a conducive learning environment. The educational experiences and opportunities I have received at UTeM have been instrumental in my development as a game developer.

Lastly, I want to thank all the individuals and organizations who have played a part, big or small, in the creation of "The Lost Excalibur". Your contributions, feedback, and encouragement have been invaluable, and I am truly grateful for your involvement.

In conclusion, I extend my sincere gratitude to each and every one of you. Your support and contributions have made this project possible, and I am honored to have worked with such remarkable individuals. Thank you for being a part of this journey.

## ABSTRACT

"The Lost Excalibur" is a turn-based role-playing game (RPG) developed with the objective of reviving the classic RPG genre and offering an engaging gaming experience. The game is set in a fantasy world and focuses on the theme of friendship, providing players with a captivating storyline and simple controls. The target audience for the game primarily includes players aged 12 to 40, with a specific focus on teenagers and young adults who enjoy playing single-player RPGs. This project aims to develop and implement a unique inventory system for the game, tailored to each character's class. It also explores the story-driven nature of each playable character within the RPG. The effectiveness of the game's storyline on user acceptance will be evaluated through the use of questionnaires. The game features two characters with distinct classes, characteristics, and equipment, and the player has to control both characters in battle. The main character embarks on a journey in a 2-dimensional game world, encountering various places and engaging in battles with enemies. Players can earn experience points through a reward system after successfully winning a battle. The expected outcome of the project is to provide players with an entertaining and immersive RPG experience, accompanied by high-quality pixel visuals, 8-bit sound and music, and engaging gameplay. The project will be developed by using Unity Game Engine on a compatible laptop. Overall, "The Lost Excalibur" aims to captivate players with its engaging storyline, strategic gameplay, and emphasis on the storytelling about a journey of two friends. By combining these elements, the game seeks to offer a memorable and enjoyable RPG experience for players of various ages.

## **ABSTRAK**

"The Lost Excalibur" adalah permainan peranan berdasarkan (RPG) yang dibangunkan dengan tujuan untuk menghidupkan semula genre RPG klasik dan menawarkan pengalaman bermain yang menarik. Permainan ini berlatar belakang dunia fantasi dan memberi tumpuan kepada tema persahabatan, dengan melibatkan alur cerita yang menarik dan kawalan yang mudah. Audiens sasaran permainan ini adalah pemain berumur 12 hingga 40 tahun, khusus kepada remaja dan awal dewasa yang menyukai RPG permainan pemain solo. Projek ini bertujuan untuk membangunkan dan melaksanakan sistem inventori yang unik untuk permainan ini, yang disesuaikan dengan kelas setiap watak. Ia juga mengkaji alur cerita setiap watak yang terlibat dalam RPG. Keberkesanan alur cerita permainan terhadap emosi pengguna dan penerimaan mereka akan dinilai melalui penggunaan soal selidik. Permainan ini mempunyai dua watak dengan kelas, ciri, dan peralatan yang berbeza, dan pemain mengawal kedua-duanya. Watak utama memulakan perjalanan dalam dunia permainan 2-dimensi, meneroka pelbagai tempat, dan terlibat dengan pertempuran bersama musuh. Pemain boleh mendapatkan mata dan mendapatkan peralatan yang boleh dipakai melalui sistem ganjaran pembangkit nombor rawak (RNG). Hasil yang dijangkakan daripada projek ini adalah memberikan pengalaman bermain RPG yang menghibur dan mendalam kepada pemain, disertai dengan visual berkualiti tinggi dan permainan yang menarik. Projek ini akan dibangunkan menggunakan Unity Game Engine. Secara keseluruhannya, "The Lost Excalibur" bertujuan untuk mempesonakan pemain dengan alur cerita yang menarik, permainan strategik, dan penekanan kepada penceritaan tentang dua orang sahabat. Dengan menggabungkan elemen-elemen ini, permainan ini menawarkan pengalaman RPG yang berkesan dan menyeronokkan kepada pemain dari pelbagai peringkat umur.

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# LIST OF ABBREVIATIONS

FYP - Final Year Project

2D - 2 Dimension





# **CHAPTER 1: INTRODUCTION**

# 1.1 Project Background

The proposed project, titled 'The Lost Excalibur', is an ambitious endeavor to develop a captivating turn-based role-playing game (RPG) set in a mesmerizing fantasy world. The project aims to breathe new life into the classic RPG genre by offering players an immersive storyline, intuitive controls, and an engaging gameplay experience. By combining elements of exploration, character development, and strategic battles, 'The Lost Excalibur' seeks to provide an unforgettable adventure for players of all ages.

In this RPG, players will assume the role of the main character, embarking on a grand quest to uncover the secrets of "The Lost Excalibur". The game world will be richly detailed, featuring diverse landscapes, enchanting environments, and intriguing characters. As players progress through the game, they will encounter various challenges, including puzzles to solve, quests to complete, and formidable enemies to overcome. The primary objective will be to advance the main storyline, which will be intricately woven with themes of friendship, bravery, and the pursuit of truth.

RPG stands for Role-Playing Game. It is a genre of video games that allows players to assume the roles of fictional characters and engage in an interactive and immersive game world. In an RPG, players take on the persona of a character and control their actions and decisions within the game. The defining characteristic of RPGs is the emphasis on character development and progression. Players typically start with a basic character and gradually enhance their abilities, skills, and attributes through gameplay. This can involve leveling up, acquiring new equipment, learning spells or abilities, and making choices that shape the character's story and abilities. RPGs often feature expansive and intricate narratives, offering players a deep and immersive storyline to follow. The game world may be filled with quests, side

missions, and non-player characters (NPCs) that interact with the player's character. Players can explore the game world, interact with various characters, engage in battles with enemies, solve puzzles, and make choices that affect the outcome of the game. RPGs can come in different forms, including turn-based RPGs, action RPGs, openworld RPGs, and multiplayer online RPGs (MMORPGs). They can have various settings, such as fantasy, science fiction, post-apocalyptic, or historical, offering a wide range of experiences and gameplay mechanics.

#### 1.2 Problem Statement

Creating an exceptional RPG requires meticulous attention to detail and careful consideration of various challenges. One of the primary challenges is the development of a compelling 2-dimensional environment that immerses players in a believable and captivating world. This will involve creating visually stunning landscapes, detailed character models, and atmospheric settings that evoke a sense of wonder and adventure.

Another significant challenge lies in designing an inventory system that caters to the unique characteristics and classes of each playable character. The inventory system should seamlessly integrate with the gameplay mechanics, allowing players to collect and manage weapons, armor, spells, and other items essential for their journey. Balancing the inventory system to ensure a fair and rewarding progression for players will be a key consideration.

Additionally, crafting a compelling and emotionally resonant storyline for each playable character poses its own set of challenges. The narrative must be carefully crafted, considering the motivations, backstories, and personal growth of each character. The storyline should draw players into the game world, evoke emotional responses, and offer meaningful choices and consequences that shape the overall gameplay experience.

# 1.3 Objectives

Objectives of the Project:

- 1. To identify a role-playing game that has an inventory system specifically for each character with different classes.
- 2. To investigate the story driven style of each playable character that is involved in a role-playing game.
- 3. To evaluate the effectiveness storyline of the game to user's acceptance using questionnaires.

## 1.4 Goals and Genre

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The primary goal of the project is to develop and deliver a top-quality turn-based RPG that captivates players with its immersive gameplay, rich storyline, and memorable characters. The game aims to provide a fulfilling and enjoyable experience for players aged 12 to 40, with a particular focus on teenagers and young adults who appreciate single-player RPGs and value the storytelling of the game.

The genre of 'The Lost Excalibur' is an adventure role-playing game, offering players an opportunity to explore a fantastical world filled with mystery, danger, and discovery. The game will encompass elements of exploration, combat, character development, and storytelling, creating a comprehensive gaming experience that appeals to RPG enthusiasts.

The game's immersive storyline, visually stunning graphics, and enchanting sound design will transport players to a mesmerizing fantasy world, filled with wonder and excitement. Through the use of intricate lore, intriguing characters, and compelling narrative arcs, the game will engage players in an epic quest to recover the legendary Excalibur.

#### 1.5 Game Features

'The Lost Excalibur' offers a plethora of captivating game features that immerse players in an unforgettable gaming experience. At the heart of the game lies a captivating storyline, weaving together mystery, adventure, and personal growth. Players embark on a quest to recover the legendary Excalibur, encountering intriguing characters, unraveling ancient prophecies, and forging deep connections along the way.

Exploration is a key aspect of the game, as players traverse a vast and detailed game world. From verdant forests to ancient ruins and bustling cities, each location offers hidden treasures, lore, and opportunities for interaction with diverse NPCs. Unveiling the secrets of the world becomes an enticing endeavor.

Engaging in strategic turn-based battles forms the core gameplay experience. Players must carefully plan their moves, taking advantage of each character's unique abilities, weapon choices, and enemy weaknesses. The tactical combat system adds depth, ensuring challenging encounters that require thoughtful decision-making.

Character classes and customization provide players with the freedom to shape their heroes according to their playstyle preferences. Choosing from a range of classes, players can further customize their characters' skills and equipment. This flexibility enhances the sense of ownership and allows for a personalized gameplay experience.

An inventory system enables players to collect and manage an array of weapons, armor, potions, and other items. Selecting the right gear strategically enhances characters' capabilities and survivability, making item management an integral part of the gameplay.

The game world is replete with main stories that offer diverse objectives and challenges. Besides, the main stories provide opportunities for character development, exploration, and rewarding experiences. The multitude of storylines ensures a variety of engaging content for players to enjoy.

Visually, 'The Lost Excalibur' captivates players with stunning 2D pixel graphics. Detailed environments, atmospheric lighting, and 2 dimensional visual effects bring the game world to life, intensifying the sense of adventure and wonder. The immersive visuals further enhance the overall gaming experience.

Adventures engagement is a key aspect of the game, with a storyline and character interactions designed to evoke powerful adventure. Player choices and consequences shape the narrative, allowing for a personalized journey that resonates with individual players.

Lastly, 'The Lost Excalibur' pays homage to retro RPGs, blending nostalgic elements and aesthetics with modern gameplay mechanics and visual fidelity. This combination creates a unique atmosphere, capturing the charm of classic RPGs while offering a fresh and engaging experience.

Through its captivating storyline, immersive exploration, strategic battles, character customization, and adventures engagement, 'The Lost Excalibur' promises players an unforgettable adventure in a visually stunning and storytelling rich in fantasy world.

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## 1.6 Conclusion

In conclusion, Chapter 1 has introduced "The Lost Excalibur," a turn-based RPG set in a captivating fantasy world. The game aims to revive the classic RPG genre by offering a compelling storyline, immersive exploration, strategic battles, character customization, and adventures engagement. The project's objectives include identifying a role-playing game with a specific inventory system tailored to each character's class, exploring the story-driven nature of playable characters, and evaluating the effectiveness of the game's storyline on user acceptance. With a target audience of players aged 12 to 40, the game will provide an entertaining and engaging experience through its atmospheric visuals, captivating sound design, and a focus on the journey of adventurers. The chapter sets the stage for further exploration of the project's development and gameplay mechanics in subsequent chapters

