Faculty of Computer and Mathematical Sciences
UiTM Cawangan Melaka Kampus Jasin

FYP MINI PROPOSAL

PROJECT IDEA: CODE EXIT (ESCAPE ROOM CODING PUZZLE)

BACHELOR OF MULTIMEDIA COMPUTING HONS

(CS253)

STUDENT ID	STUDENT NAME	GROUP
2023686282	SYAFIQAH RUZANA BINTI SAZALI	M3CS2534C

SEPTEMBER 2024

1. Background Study

An escape room game is a physical adventure game played by a group of 2 to 12 players who are locked in a room and must solve puzzles, find hidden clues, and complete tasks to move through different rooms and ultimately escape within a set time limit. During the COVID-19 pandemic, online escape room games emerged as a popular digital adaptation of this experience, allowing players to collaborate remotely over the internet to solve puzzles and escape from a virtual environment while enjoying the same thrill and challenge from home.

2. Problem Statement

Traditional education methods in universities is one of the reasons computer science students find it difficult to understand coding languages. They also think that learning and practicing to code is a burden. To address this, there is a need for a more engaging approach to teaching programming that enhances understanding, encourages active participation, and motivates students to practice coding skills. Therefore, this project aims to develop an "Escape Room" coding-based puzzle game that combines the excitement of escape rooms with educational content to create an interactive learning experience. The game will provide a series of coding challenges that require students to solve puzzles, debug code, and apply programming concepts to progress through the game, making coding practice more enjoyable and effective.

3. Project Aim

This project aims to make university courses more engaging and effective, particularly for diploma students and students in the first two semesters of a degree course. The goal is to create an escape room game that aligns with the UiTM syllabus, integrating key programming concepts into a fun and interactive experience. The game will use coding-based puzzles to help students understand coding languages more easily, enhance problem-solving skills, and foster a positive attitude toward learning programming. By transforming coding education into an enjoyable and gamified experience, the project seeks to motivate students, improve their comprehension, and ultimately make learning to code a more appealing and accessible process.

4. Expected Output

The expected output of the game is to create a single-player escape room game with a time limit for finding clues and solving coding quizzes. Each room in the game will have a unique theme based on a different coding language. The player will need to complete various coding challenges, such as debugging code, filling in missing logic, or solving programming problems based on the clues provided. The game will dynamically adapt to the player's progress, offering hints and increasing difficulty to ensure an engaging and educational experience. Ultimately, the game will help students improve their coding skills, enhance their understanding of different programming languages, and make learning to code a fun and interactive process.

5. Target User

The target users for this escape room coding-based puzzle game are diploma students and new degree students who are in the early stages of their computer science education. The game is designed to help these students build a solid foundation in programming by making learning interactive, engaging, and enjoyable. Additionally, the game can be a valuable tool for lecturers who want to supplement traditional teaching methods with a dynamic educational resource that enhances student participation and comprehension. The game may also appeal to high school students who are interested in computer science, providing them with an accessible and fun way to explore coding concepts before entering higher education.

6. Market Value

This game can be further developed to align with Malaysia computer science syllabus, making it a valuable resource for educational institutions worldwide. By offering a tool that helps lecturers teach coding during labs and practice sessions, the game can be an innovative element in traditional teaching methods. With the growing demand for effective online and interactive learning solutions, the game has significant market potential in Malaysia e-learning industry.

7. Reference

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