

UNDERGRADUATE PROJECT PROPOSAL

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| **Module Code:** | **CHC 6096** |
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# Introduction

This project is a 2D horizontal mystery puzzle game. It is a local suspense puzzle game with Chinese theme. Players will control the characters (story participants and witnesses) and interact with the scene props in the game. As the story progresses, they will solve the interlocking puzzles and find out the truth of the events.

## Background

## In the game industry, there are already many games related to the horror and suspense genres, such as Silent Hill, The Evil Within, and The Forest. Some of these games have great graphics and great modeling, some have an exciting story pace, some have great game style, and most importantly, the atmospheres are so good that the players feel a sense of tension and pressure throughout the process. This has helped horror puzzle games gain popularity and support in the industry.

## Aim

## Develop a 2D horizontal single player linear story game with solving mystery theme.

## Objectives

## The objectives are as follows:

## Ob1. The game is a combination of narrative and puzzle solving, and the puzzles in the game correspond to the story.and the player needs to manipulate the characters in the game to interact with the scene, obtain important information about the plot, advance the story flow, and solve the truth behind the strange events themselves.

## Ob2.Design, construct and complete a mystery story set in the modern Chinese society.

Ob3.Design simple and easy to recognize human-computer interaction UI, so that players can easily interact with the game scene according to the guidance of the UI.

## Product Overview

### Scope (What will it do? How will it work?)

This project is a 2D horizontal mystery puzzle game. It is a local suspense puzzle game with Chinese theme. Players will control the characters (story participants and witnesses) and interact with the scene props in the game. As the story progresses, they will solve the interlocking puzzles and find out the truth of the events. The project will runs on macOS and windows.

### Audience

### 1.People who love mystery, suspense games.

### 2.Peer developers in the game industry.

# Background Review

## Summary of existing approaches

## Some of The best horror games that have been released in the game industry are Outlast, Paper Dolls, and The forest. Since this project is a 2D horizontal puzzle game, its picture performance and visual impact may not be as good as those of the above games. However, this project can render the plot and atmosphere of the game with a large amount of text content and hand-drawn scenes, props, characters and other picture elements. Start with the details and present the story to the player in more detail.

# Methodology

## Approach

## The project will use use waterfall with some of may steps. The first step is to determine the genre of the game's story. The developer will look at well-known games in the industry and analyze their stories to determine the best narrative style. Requirements analysis will be in the form of a table to analyze the images and art performance required by the game scene. Meanwhile, it will collect user requirements from different users, such as developers and users.The second step is to polish the story, which will also be done in the future development of the project.The third step is the design of the game UI. At the beginning of the game development, the existing UI materials in the development tools will be used to test whether the scene interaction works normally. In the subsequent development, the developer will design the UI according to the story plot and atmosphere. The graphics and scene art of the game will be drawn in parallel with the UI design, different scenes, characters, props will be designed according to the story content, and the characters, scenes and other graphics may change before and after some key events. Finally, the text content of the game story will be filled. The text content will appear in the scene, character dialogue, and prop description. Meanwhile, in order to ensure the correct display of the text, the text display of each part will be tested in the subsequent development.

## Technology

This project plan to use RPGMaker MV as development engine, developer will use this tool to script game, design game decryption and other technical work. Some Chinese elements (including but not limited to modern Chinese culture, scenes, characters, etc.) will be added to the game. Developer will use Baidu Academic, mendeley reference manager and other tools to search and manage relevant academic literature to make the elements in game more authentic and evidence-based.

## Version management plan

This Project’s version control and management will be finished by github and github desktop.

Different versions of the game will have different features added to the game: The first activities will be write the story, The core of the game is the narrative, and all the decryption and game mechanics will revolve around the story, followed by the learning and application of development tools, and finally the completion of the game graphics and illustrations.

# Project Management

## Activities: tasks required to complete each objective

Different versions of the game will have different features added to the game:

4.1.1 The first activities will be write the story, The core of the game is the narrative, and all the decryption and game mechanics will revolve around the story.

4.1.2 Followed by the learning and application of development tools.

4.1.3 Finally the completion of the game graphics and illustrations.

## Schedule

This semester will complete the learning of development tools, the general framework of the game story, and the art style of the game interface.

In the semester of 2023, project will complete the plot details of the game, complete the game art drawing, complete the game script and code. Complete the game project until it is ready to run for at least two chapters.

## Data management plan

Data management will be finished by github, a folder will be created in the repository and this folder will be dedicated to storing project data, update logs, etc.

## Deliverables

The final deliverable files of the project are: 1. Game ontology, initiator (executable file) 2. Game code 3. Game update log 4. Game data management files.

# References

## Citations and references adhering to University guidelines or IEEE

## 1. Lim Eng Lye and Mas Idayu Binti Md Sabri, "Learning history through computer game authoring," 2013 8th International Conference on Computer Science & Education, 2013, pp. 746-750, doi: 10.1109/ICCSE.2013.6554007.

## 2. S. A. E. Campos, B. A. M. Morales and Á. A. V. Núñez, "Open-Source Game Engine & Framework for 2D Game Development," 2022 IEEE Engineering International Research Conference (EIRCON), 2022, pp. 1-4, doi: 10.1109/EIRCON56026.2022.9934816.

## 3. N. F. M. Nusran and N. A. M. Zin, "Popularizing folk stories among young generation through mobile game approach," 5th International Conference on Computer Sciences and Convergence Information Technology, 2010, pp. 244-248, doi: 10.1109/ICCIT.2010.5711065.

## Formatting Requirements:

## Your written assignments must be presented in the following format:

* It must be word-processed in 11-point Arial font
* It must be black text on a white or ivory background
* All pages must be numbered
* Margins must be as follows: Top: 1 inch, Bottom: 1 inch (2.5 cm), Left: 1.25 inches, Right:
* 1.25 inches (3.2 cm)
* Use a line spacing of 1.5
* Numbers and captions to figures and tables should be at the bottom of the figure or table. If the figure or table is mounted sideways into the report, then its bottom is on the right-hand side of the report.
* The report should not normally contain more than 80 tables/figures.

## Written Presentation

* The project proposal must have a concise written presentation and referencing style.
* It should also have a clear & logical presentation.