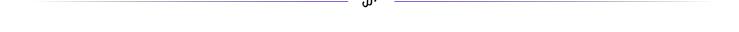# Escape room Technical Documentation

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📘 Technical Documentation

The Librarian's Last Request

Engine: Unreal Engine 5

Developer: Tay (aka @taysbookbabel)

Genre: Escape Room

Theme: Haunted Library Mystery

Level: Beginner

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🧠 Code & Blueprint Architecture Overview

◆ GameMode Blueprint: `BP_BP_ThirdPersonGameMode

- **Purpose**: Controls game rules, countdown, objectives,etc..
- **Key Variables**:
  - `Haskey(Boolean)` : Verifies if the character has a page in order to open the door.
- **Key Functions**:
  - `ConstructionScript` : No current function.

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◆ **Player Controller: `BP_ThirdCharacter**

- **Purpose**: Handles player input, interaction line traces, and UI.
- **Widget Integration**:
  - Interacts with `WBP_Countdown` (1 minute countdown) and `WBP_GameOver` (triggers the game over screen).

📕 `BP_ObjectivePoint`

- **Type**: Actor Blueprint
- **Purpose**: Holds the objectives for the level.
- **Core Logic**:
  - Uses a collision box to trigger a message to the player. It interacts with the podium mesh that holds the book on top of it in level one.
  - Reacts to player walking into (or colliding with) it. .
  - Objective is not displayed on the screen until the player collides with the objective point actor.

📘 `BP_DoorKey`

- **Purpose**: Holds the code for the pages of the book that the player must retrieve to open the door.
- **UI**: Tied to `BP_Door` .
- **Validation**:
  - If correct, the player will not be able to open the door and escape until they have found the page within the level.

📕 BP_Door

- **Purpose**: Has the code for the actual door and door frame which stays closed unless the player has the key (page of the Book of True Names)
- **Logic**:
- Activates the rotation of the door so it turns open.

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💼 Assets Summary

Category	Name	Purpose
Mesh	bigpipe_v2_a_big_pipe	Walls
Mesh	billard_table	Pool Table
Mesh	bookshelf_short_lowpoly	Bookshelves
Mesh	chalk_board	Green Chalkboard
Mesh	cupboard_wooden_rusty	Rusty Cupboard
Mesh	de_humani_corporis_fabrica	Book on Podium
Mesh	dirty_leaking_concrete_wall	Leaky Wall
Mesh	japanese_bulletin_board_01	Bulletin Board
Mesh	neo_gothic_stone_column	Stone Podium
Mesh	old_desk_04_freepolyorg	Library Tables
Mesh	old_pillar	Old Rusty Pillar
Mesh	old_rusty_pipe_tube	Old Pipes
Mesh	old_wooden_table	Wooden Tabke
Mesh	rusty_japanese_arcade	Old Arcade Machine
Mesh	set_of_cardboard_boxes	Cardboard Boxes
Mesh	SM_Jelly_letter	Red Lettering
Material	M_	Floor
VFX	Niagara Sparkles	Glow Over The Podium

Category	Name	Purpose
SFX	Escape*Room_Librarian_Sound,grimyth*-_Deep_Space_Buddha	Librarian Laugh, Haunted Sound
UI	WBP_Countdown WBP_GameOver	Countdown/Game Over Screen

🔧 Technical Considerations

- **Performance**: Shelves and books are instanced where possible for efficiency.
- **Accessibility Goals for the Future**:
  - Red/Green colorblind-friendly filter in Post Process
  - Flashlight toggle for visibility control
  - Minimal Eye Strain
  - Visual Cues for HOH players