# Capstone Pre-Production

Description:

For my Capstone Project, I will be building an interactive simulation of an Escape Room, with a terror genre addition to stimulate the user's emotions and also make them have a change of mind around how they perceived paranormal situations.

To begin the experience, viewers will be presented with a very 90's horror games style Start Scene, where they will see a graveyard (very similar to the 90's games style, not realistic) in which they will start feeling what this game will be about. For this part, I was mostly influenced by the House of the Dead old games, and so I decided to add a very creepy audio clip with an unsettling message (the user is already dead, a paranoid idea that came from the "Sixth Sense").

"I see dead people."
–Cole Sear/Haley Joel Osment
The Sixth Sense (1999)
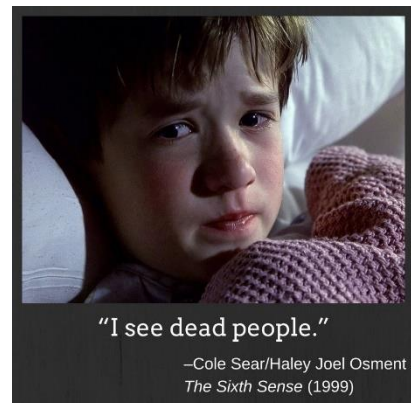
After that, when the user hits the Menu button (which simulates the old "Start" button), will access to the Game scene. This scene will be located inside a room that simulates where a family lived a long time ago, as the furniture will appear to be in bad shape. There will also be personal kid stuff (which always brings more terror to the user) and a couple of undead creatures. This idea comes from the now popular Escape Rooms, mixed with a little bit of Paranormal Activity influence.

Features And Dependencies:

1. 3D Models + Animations (Reference Images)

I will be using some elements to bring the paranormal sensation to the user:
- Undead creatures: they will creep out of unexpected places to hunt the user. This will require to create the 3D models and figure out how to make this animation.
- There will be paranormal animations simulating a haunted house: a flickering light bulb, flying objects…
- I will build some furniture using a 3D modeling program (Maya), and also some keys to unlock the door.
- Skybox: this will mostly be important in the Title Scene, as it's where it will be showed as if it was a 90's game, so I will have to find a Graveyard style Skybox.

2. Game Loop

   a. The user will have an intro scene explaining what happened to the family that lived there and how they died.
   b. Interaction for player with small elements and the door, also with the undead creatures.
   c. Hide keys in places easy enough to find to not frustrate the user, but difficult enough for the user to explore the room.
   d. Build moving system with the trackpad (like Paranormal Activity, the VR Game) for the user to explore the Room and find the keys to open the door and escape. Implement a system to rotate the camera 90⁰ degrees to navigate back and make the user feel less sick.
   e. Game Mechanic for player to try to escape the room:
       i. Make the user collect a number of keys.
       ii. If the player doesn't have all the keys, the door won't open. If the user has all of them, the door will lead them to their escape.
   f. Creating a system to exit the scene and load the title scene.
   g. Hints to guide player towards the right areas.

3. Other Effects

   a. Dark lighting, to make the user feel more scared of what he/she can't see.
   b. Particle Effects to reward users for doing a correct actions (collecting the keys).
   c. Spatial Sound effects for undead creatures, ambient sounds, and the start scene scary message.
   d. Make the user know when he can escape the room.

Capstone Scoping

4. 3D Models + Animations (Reference Images)

- Undead creatures: ~~they will creep out of unexpected places to hunt the user.~~ This will require to create the 3D models and figure out how to make this animation.
    - **To scope down, will have to forgo this animation. It's very difficult to achieve and requires more knowledge than I have. I will surely be looking forward to make this as soon as I know hot to do it.**
- There will be paranormal animations simulating a haunted house: ~~a flickering light bulb~~, flying objects…
    - **To scope down, will have to forgo this animation, as it feels very uncomfortable within the game.**
- I will build some furniture using a 3D modeling program (Maya), and also some ~~keys~~ to unlock the door.
    - **Revision: the keys build in Maya gave me some gravity problems that I couldn't solve, so I had to rebuild them using Unity's own 3D Game Objects.**
- Skybox: this will mostly be important in the Title Scene, as it's where it will be showed as if it was a 90's game, so I will have to find a Graveyard style Skybox.
    - **Revised: Achieved, it was very easy to find the type of Skybox that makes the user remember old terror games.**

5. Game Loop

a. ~~The user will have an intro scene explaining what happened to the family that lived there and how they died.~~
   i. **Revised: it made the game unnecessary long, as it doesn't really matter in this scenario how they died. What matters is that they're still souls and need our help.**
b. Interaction for player with small elements and the door, also with the undead creatures.
   i. **Achieved: made some kid toys for the user to grab and toss around, they keys are collected and the door changes the audio clip played when it's locked or opening.**
c. Hide keys in places easy enough to find to not frustrate the user, but difficult enough for the user to explore the room.
   i. **There was a tricky place where the key could be buried underneath some falling bricks and way to difficult to find, so I moved it to another place.**
d. Build ~~moving system with the trackpad~~ (like Paranormal Activity, the VR Game) for the user to explore the Room and find the keys to open the door and escape. ~~Implement a system to rotate the camera 90º degrees to navigate back and make the user feel less sick.~~
   i. **Revised: I opted for using teleport area system, as it makes the user less sick than moving around. The rotating system**

> **wasn't working and couldn't figure it out yet, but I will eventually!**

    e. Game Mechanic for player to try to escape the room:

        i. Make the user collect a number of keys.

            1. **Revised: The user will have to collect 5 keys (each of them frees one out of the five dead family member's souls.**

        ii. If the player doesn't have all the keys, the door won't open. If the user has all of them, the door will lead them to their escape.

            1. **Revised: When the user collects all of them, a message shows on the screen to prompt the user to use the door.**

    f. Creating a system to exit the scene and load the title scene.

        i. **Achieved: as soon as the user has all the keys and uses the door, it brings him/her to the Title Scene.**

    g. ~~Hints to guide player towards the right areas.~~

        i. **Revised: it wasn't needed, as the keys are hidden in places that are enough intuitive to find.**

6. Other Effects

    a. Dark lighting, to make the user feel more scared of what he/she can't see.

        i. **Revised: instead of making everything too dark that could make the user feel less where he/she can go, I opted for giving the Camera a red spotlight very similar to a flashlight to make it scarier and to know where he/she is pointing.**

    b. Particle Effects to reward users for doing a correct actions (collecting the keys).

        i. **Achieved: I reutilized the "KeyPoofPrefab" effect to make the user know he/she's on the right path collecting the keys.**

    c. Spatial Sound effects for undead creatures, ambient sounds, and the start scene scary message.

        i. **Achieved: there are ambient sounds for both scenes, as well as spatial sounds for the door and the undead creatures.**

    d. Make the user know when he can escape the room.

        i. **Revised: I used a text that pops up as soon as the user collects the last key, so he/she knows that it's possible to leave then.**