

**RAJALAKSHMI ENGINEERING COLLEGE**



**PROJECT THESIS**

**THE UNSEEN  
GAME DEVELOPED IN UNREAL  
GAME ENGINE**

**April 2025**

# **THE UNSEEN**

**A GAME PROJECT THESIS**

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*in partial fulfilment for the course*

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## **BONAFIDE CERTIFICATE**

Certified that this project report “**THE UNSEEN**” is the Bonafide work of “**UDAY KIRAN K (221701062), NAVEEN S (221701502)**” who carried out the project work for the subject CD19641 – Game Design and Development under my supervision.

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## **Abstract**

The project “THE UNSEEN” this game design project presents “Escape from the Forest” a first-person shooter (FPS) set in a mysterious and dangerous forest at night. The objective is for the player to escape by unlocking a visible door located deep in the forest. To open the door, the player must find a key and a book scattered somewhere within the fog covered environment. The forest is enveloped in dense fog and darkness, limiting visibility and creating a haunting, tense atmosphere as players navigates the terrain. Throughout the journey, the player must explore the forest, and survive attacks from monstrous creatures that roam the area. These enemies emerge from the shadows and fog, adding suspense and unpredictability to the gameplay. Players must balance their search for the key items with defending themselves against constant threats. Weapon and limited resources are hidden throughout the map, encouraging careful exploration and strategy. The first-person perspective immerses the player in the eerie environment, heightening fear and tension. As the narrative unfolds, the player uncovers secrets about the forest and the significance of the magical book. This project aims to deliver an intense, atmospheric experience blending survival, action, and exploration for fans of horror-themed FPS games.

## **ACKNOWLEDGEMENT**

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## **Game Design and Development:**

In my game design and development project, I created “Escape from the Forest” using Unreal Engine, combining storytelling, art, and technology to deliver an immersive first-person shooter experience. The game places players in a dark, fog-filled forest at night, where they must find a key and a magical book to unlock a visible door and escape, all while surviving attacks from monstrous creatures. Throughout development, I applied core principles of game design by conceptualizing the narrative and gameplay mechanics, designing atmospheric environments with fog and lighting, and implementing combat systems, enemy AI, and item interactions using Unreal Engine’s blueprint and coding tools. This project showcases how various disciplines programming, level design, art, and sound—work together to create an engaging, interactive experience that challenges and entertains players.

### **UNREAL ;**

I used Unreal Engine as the primary tool for game design and development, integrating key elements such as level design, character creation, and interactive mechanics. Unreal Engine provided a powerful environment for building detailed 3D assets, applying realistic lighting and fog effects to enhance atmosphere, and using the blueprint system to program gameplay logic without extensive coding. I utilized its material editor to texture environments and models, created AI behaviour for enemy characters, and implemented first-person shooting mechanics through built-in templates and custom modifications. By combining these features, I was able to prototype, test, and iterate on gameplay elements efficiently, ensuring a polished and immersive player experience.

## Game Posters:





# 1. Introduction:

## 1.1 Game Description

**“Escape from the Forest”** is an intense first-person survival shooter that plunges players into a mysterious and foreboding wilderness where danger lurks behind every shadow. Set in an otherworldly, fog-shrouded forest under the cover of night, the game challenges players to navigate treacherous terrain, evade deadly creatures, and unlock the path to freedom. What begins as a simple journey quickly spirals into a desperate fight for survival as the forest reveals its dark secrets.

In **“Escape from the Forest,”** players step into the shoes of a lone survivor, armed with limited weapons and driven by a singular goal: to escape the haunting forest by locating two critical items—a **key and a magical book**—needed to open a mysterious, ever-present door standing deep within the woods. The door is visible from the outset, a symbol of hope and escape, but remains locked until the necessary items are found.

As players explore the forest’s winding paths, abandoned clearings, and decaying ruins, they will encounter grotesque monsters born from the forest’s dark energy, relentlessly hunting any intruder.

Each corner of the forest is a test of courage and strategy. Dense fog limits visibility, hiding threats in the darkness, while eerie sounds echo from unseen places. Players must manage scarce resources, solve environmental puzzles, and fight or flee from monstrous attackers to survive. Every step deeper into the forest uncovers unsettling clues about the origins of the creatures and the sinister forces behind the enchanted door.

## 1.2 Type of Game

**“Escape from the Forest”** is a **first-person survival shooter** set in a dark, fog-filled forest at night. The game challenges players to explore a dangerous environment while fending off monstrous creatures using limited weapons and resources. Players must locate a key and a magical book to unlock a visible door and escape, balancing combat, exploration, and puzzle-solving. The game creates tension through low visibility, eerie soundscapes, and unpredictable enemy encounters. Survival depends on careful strategy, quick reflexes, and resource management. With its atmospheric setting and action-driven gameplay, the game delivers a suspenseful, immersive experience. Players must stay alert as they uncover the forest’s dark secrets and fight to survive the night.

## 1.3 Game Concept:

Find a key and a magic book to escape. Fight scary creatures that hide in the mist - they attack when you make noise or use light. Your mind plays tricks as you stay longer (seeing things that aren’t there). Run to the big gate when you have both items, but monsters will chase you. At the end, choose: burn the book to stop the curse, or keep it and escape fast. Made in Unreal Engine 5 for super-realistic scary forests and monster sounds.

## 2. Characters:

In this game there will be three important characters, each with their own unique backstory and role in the unfolding narrative. Additionally, the game features a variety of experimental creatures that serve as enemies along the gameplay.

### 2.1 Rook:

Rook is a main character resourceful survivor equipped with a pistol and flashlight, designed for quick movement and tense combat encounters. His name reflects strategic survival, while his simple design keeps players focused on gameplay.



Figure 2.1 - Rook

## 2.2 Vith:

Vith moves at the exact same speed as the player - neither faster nor slower. It mirrors the player's movements, always maintaining a fixed distance unless attacking. The key threat comes from its perfect movement synchronization - it can't be outrun, only through sharp turns or environmental obstacles.



Figure 2.2 – Vith

### 2.3 Ylgra:

Ylgra presents a deliberate close-quarters threat designed to test player positioning and timing. The creature moves at 85% of player speed but employs sudden burst movements to close distance when attacking.



Figure 2.2 – Ylgra

### 3. **Environment:**

The game unfolds in a suffocating, fill with fog in forest . Thick mist coils between the blackened trees, reducing visibility to mere feet, while the moonlight struggles to penetrate the dense canopy above, casting eerie, shifting shadows across the uneven terrain. The air is heavy with the scent of damp earth and something more sinister—a metallic tang that clings to the back of your throat. Every sound is warped by the fog—a snapped twig might echo from the wrong direction, a guttural growl sounding inches away when its source is much farther. The trees themselves seem to twist when not in direct sight, their gnarled roots snagging at your feet like skeletal fingers. Patches of bioluminescent mushrooms pulse faintly in the dark, their sickly green glow illuminating swirling mist but revealing little else.







### 3.1 Door:

A locked door stands as your only escape from the forest. To open it, you must find the **key** and the **book** hidden in the darkness.

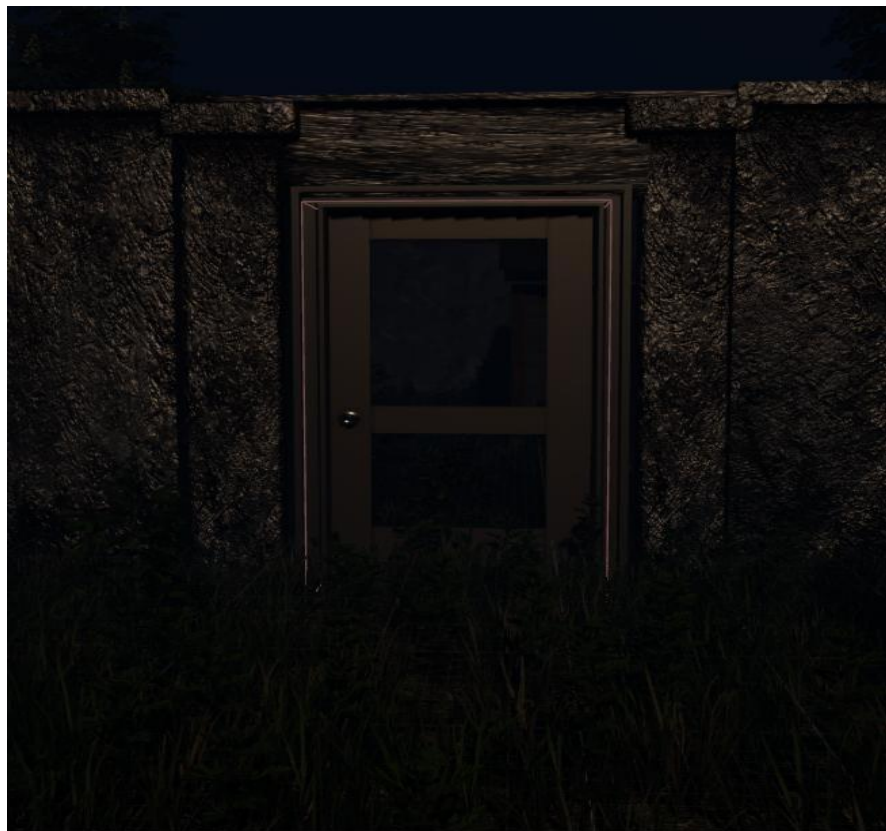


Figure 3.1 – Door

## 4. Story:

You wake up trapped in a dark, foggy forest crawling with monsters. Your only escape is a locked door deep in the woods. To open it, you need to find two things: a hidden key and a book. As you search, the monsters attack relentlessly. The book's notes help you fight back, revealing weak points and behaviours. When you finally get both the key and book to the door, you face a choice: leave and let others suffer the same fate, or stay and use the book's knowledge to wipe out the creatures for good.

## 5. Game Play:

### 5.1 Goals:

The main goal of the game is simple yet challenging: **escape the forest**. To do so, players must locate and collect two essential items—a key and a book—that are hidden deep within the forest. Only after finding both items can the final door be unlocked, leading to freedom. However, the journey is anything but straightforward. The forest is teeming with terrifying creatures that make every step dangerous and uncertain. Players must balance exploration, combat, and survival strategies to stay alive. **5.2 User Skills:**

- **Problem-solving:** Some Levels require players to engage with High Difficulty puzzle which allows the players to experience immersive play and the ability to solve puzzles in a brief period given to them.



- **Stealth:** Sneak past enemies and avoid detection to survive. Some level requires players to purposefully use stealth to avoid game end or player being dead.
- **Resource management:** Manage limited resources such as health items and ammunition to survive the challenges ahead. Players will have access to certain amount of space on their inventory to use their resource or store them. It is necessary to store the items collected from the area and discard the other evidence.

## 5.3 Game Scenes and UI:

### 5.1.1 Main menu:



Figure 5.3.1 – MainMenu

### 5.1.2 Pause menu:



Figure 5.3.2 – Pause menu

### 5.1.3 Settings menu:

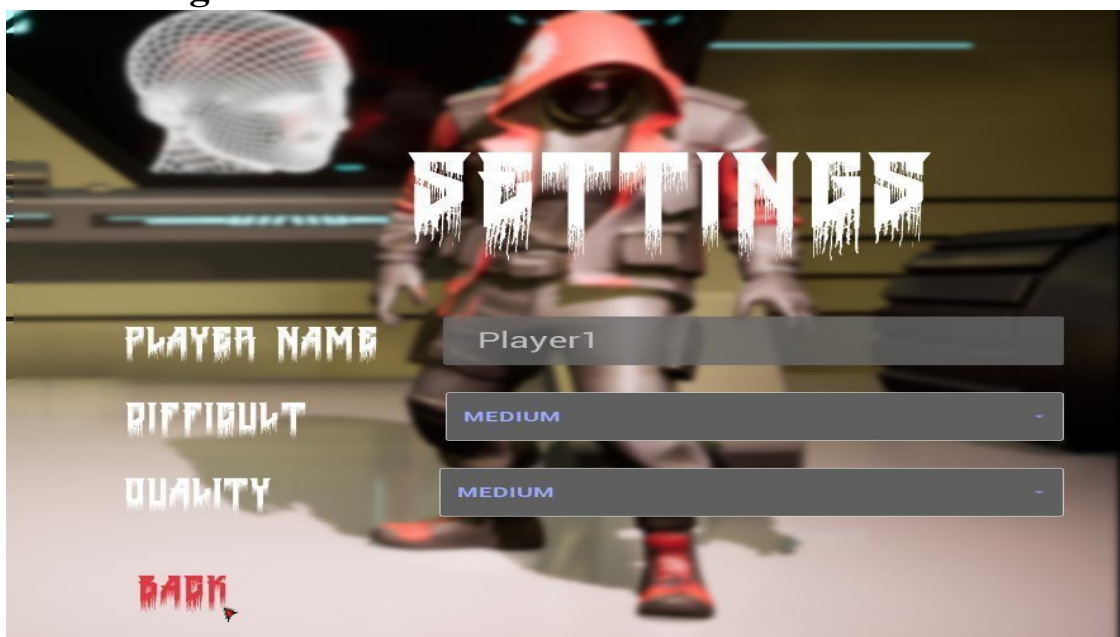


Figure 5.3.3 – Setting's menu

### 5.1.4 Victory Screen:

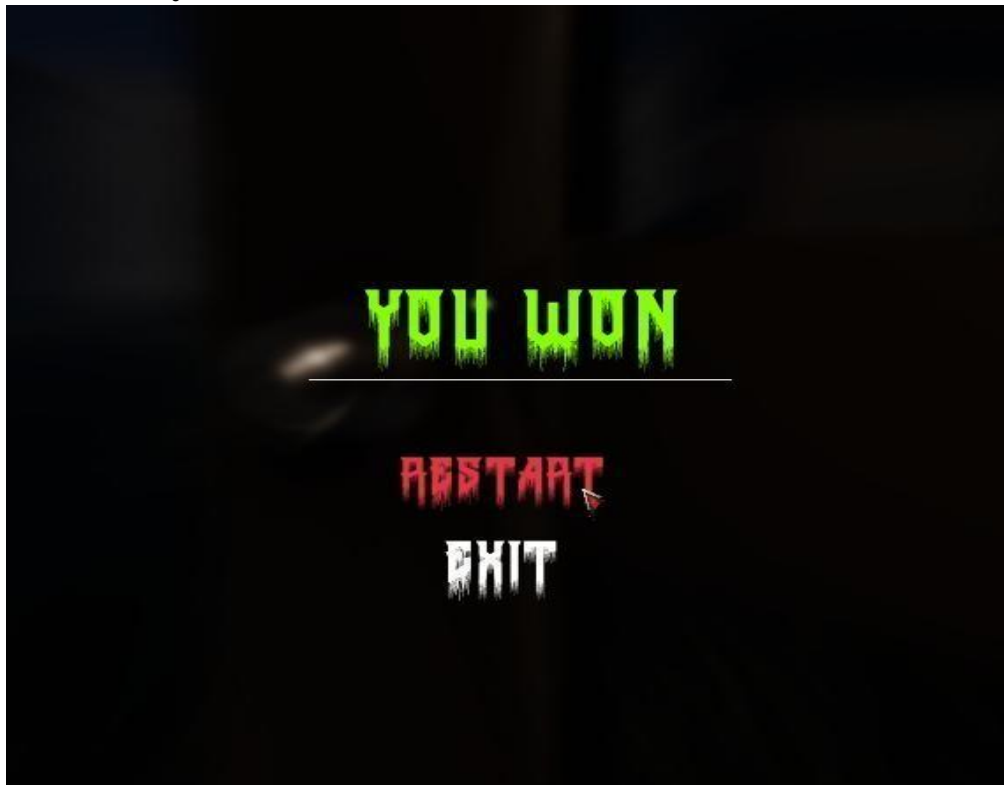


Figure 5.3.3 – Victory Screen

## 5.4 Game Mechanics:

### 5.1.1 Exploration:

In *Forest Escape*, exploration is a core element. Players will thoroughly search the dark and haunting forest environment for critical items such as the **magic key**, **ancient book**, and hidden clues that reveal the backstory. Exploring ruins, caves, and secret paths also rewards players with resources like ammunition, health kits, or lore documents.

### 5.1.2 Puzzle-solving:

To progress through the forest and unlock the final escape door, players must solve **environmental puzzles**. These may include symbol-matching, lever systems, or item-based puzzles that require careful observation and logic.

Some puzzles might guard the location of essential items or open new areas.

### 5.1.3 Combat:

Combat in the game is fast and tense. Players face horrifying **monsters** using a combination of **firearms**, limited **melee weapons**, and strategically placed **environmental traps** (like spiked pits or fire hazards). Ammo scarcity and enemy strength force players to choose their battles wisely.

### 5.1.4 Stealth:

Since resources are limited and enemies are dangerous, players can **sneak** past creatures to avoid unnecessary conflict. Moving quietly, hiding behind trees or ruins, and staying out of enemy sightlines become vital to survival in certain areas, especially when low on health or ammo.

### 5.1.5 Controls (Adapted for *Forest Escape*):

- **W, A, S, D / Arrow Keys** – Player movement
- **Shift** – Sprinting through the forest to escape threats or move quickly
- **F** – Interact with the environment (open doors)
- **Esc** – Pause menu (includes inventory, settings, and lore log)

## 5.5 Game Settings:

- ☐ **Player Name**( enter the name)
- ☐ **Difficulty** (Easy,medium,high)
- ☐ **Quality**(low,medium,high)
- ☐ **Back**

## 6. Demographics

Forest Escape is designed for mature audiences, specifically players aged **18 and above**, who enjoy intense, story-driven gameplay with horror and survival elements. The game blends suspense, combat, and mystery, appealing to a diverse range of players:

- **Horror Fans:** Players who enjoy atmospheric and tension-filled horror games will be captivated by *Forest Escape's* eerie setting and terrifying monster encounters.
- **Exploration & Puzzle Enthusiasts:** Gamers who love to search for clues, solve environmental puzzles, and unlock hidden areas will appreciate the forest's layered secrets.
- **Survival & Strategy Players:** The need for resource management, stealth, and smart decision-making appeals to players who enjoy tactical gameplay.
- **FPS Action Gamers:** Fans of first-person shooters will be drawn to the combat system, featuring firearms, traps, and stealth-based encounters.
- **Casual Horror Players:** With intuitive controls and adjustable difficulty, *Forest Escape* also caters to players looking for a more accessible yet thrilling horror experience.

## 7. Advantages and Disadvantages

### 7.1 Advantages

- **Immersive Setting:** The haunting forest environment and sound design create a deeply atmospheric experience.
- **Dynamic Gameplay:** A mix of exploration, combat, stealth, and puzzlesolving keeps the gameplay varied and engaging.
- **Engaging Story Progression:** Players are motivated to explore and uncover hidden lore and narrative elements that enhance immersion.
- **Customizable Difficulty:** Adjustable settings allow players to tailor the challenge to their preferences.

### 7.2 Disadvantages

- **Intense Horror Themes:** The dark atmosphere and frightening moments may not be suitable for sensitive or younger players.
- **Linear Objective Structure:** While exploration is encouraged, the single escape path may reduce replay value for some players.
- **Puzzle Complexity:** Players who are less experienced with logic-based gameplay may find certain puzzles frustrating without guidance.

## 8. System Requirements

The **minimum system requirements** for *Forest Escape* are:

- **OS:** Windows 10 64-bit
- **Processor:** Intel Core i5-4590 / AMD Ryzen 5 2600
- **Memory:** 8 GB RAM
- **Graphics:** NVIDIA GTX 970 / AMD Radeon R9 390
- **DirectX:** Version 11
- **Storage:** 21 GB available space

## 9. Development:

### 9.1 Platform used:

▪ **Unreal Engine:** Unreal Engine is a powerful real-time 3D creation platform developed by Epic Games. It is widely used for developing high-quality 3D and 2D games, as well as applications for simulation, architecture, and virtual production across platforms including PC, consoles, mobile, and VR/AR devices.

▪ **Cross-Platform Development:** Unreal Engine supports cross-platform development, enabling developers to build games and applications that can be deployed on multiple platforms with minimal changes. This allows for broader market reach and streamlined development.

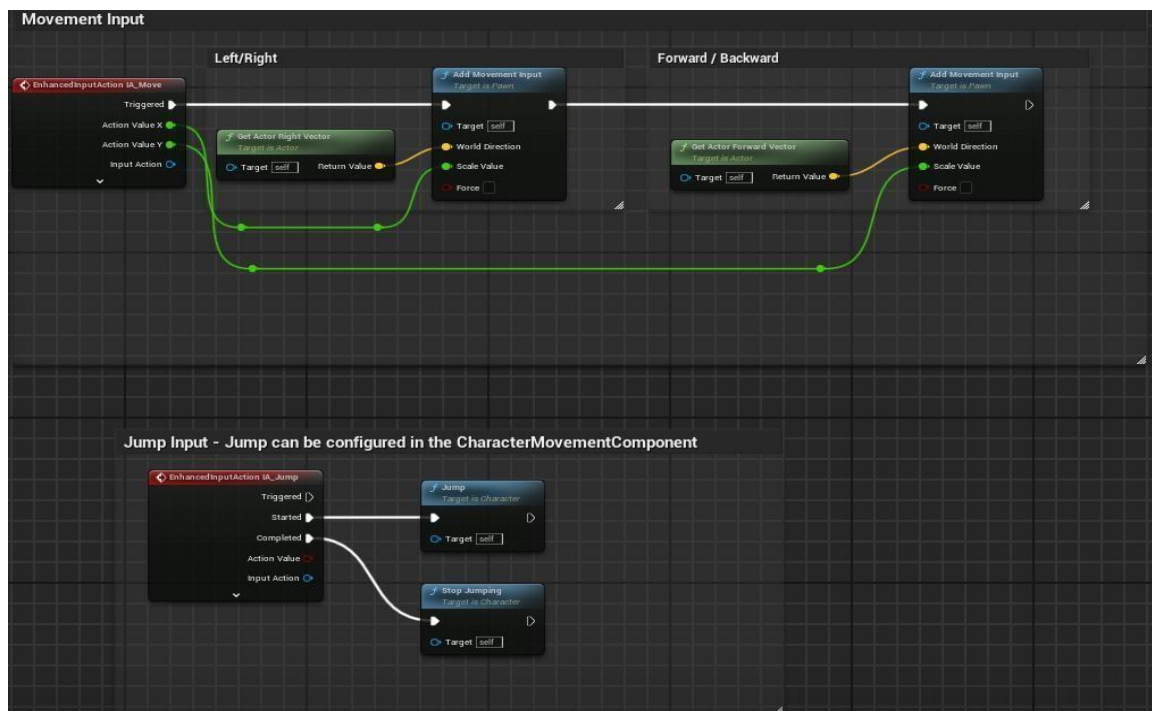
▪ **Blueprint Visual Scripting:** The game was designed entirely using Blueprints, Unreal Engine's visual scripting system, which enables developers to create gameplay mechanics, logic, and interactions without writing code. This approach allowed for rapid development and easier debugging without the use of Visual Studio or traditional programming.

▪ **Physics and Animation:** Unreal Engine includes advanced physics simulations through Chaos Physics and features a comprehensive animation system using Animation Blueprints and Sequencer. These tools were used to create realistic character movements and environmental interactions.

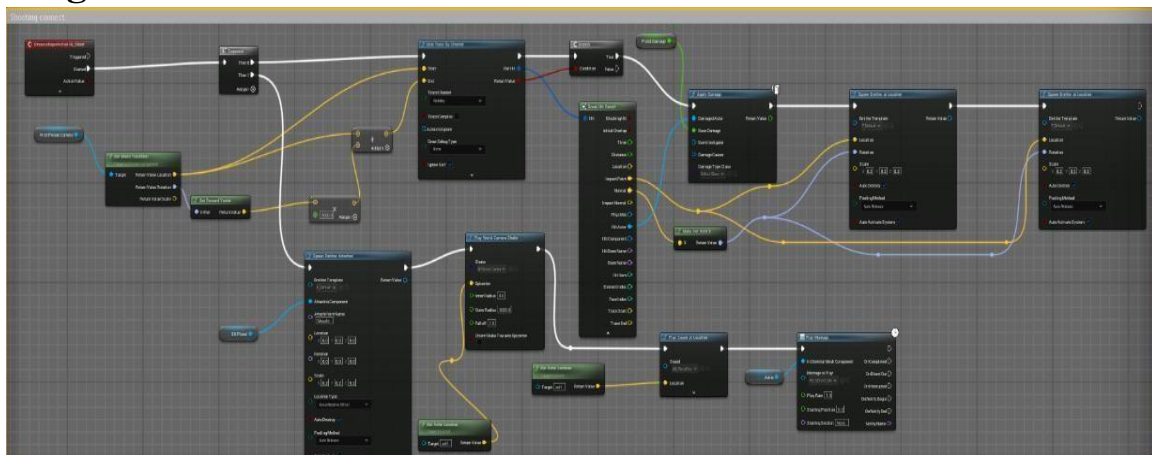
## 9.2 Blueprint:

### 9.2.1 Player Movement and action:

#### Movement:

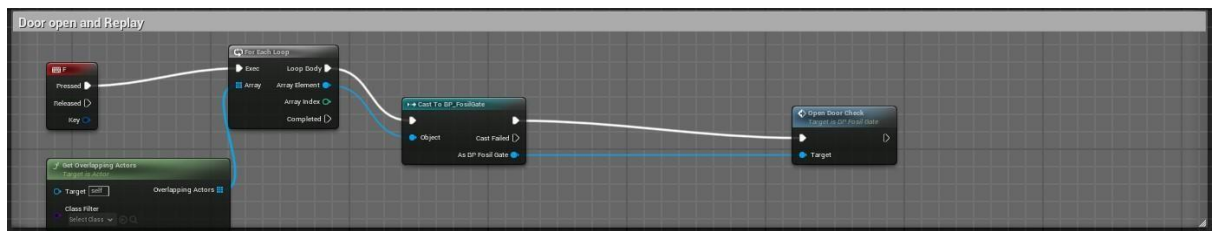


#### Shooting:

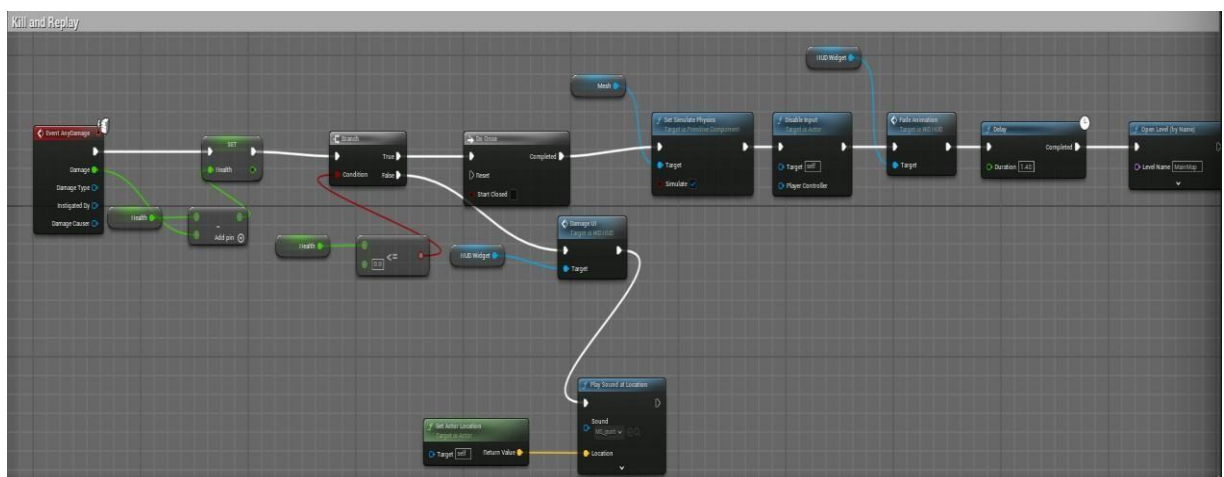




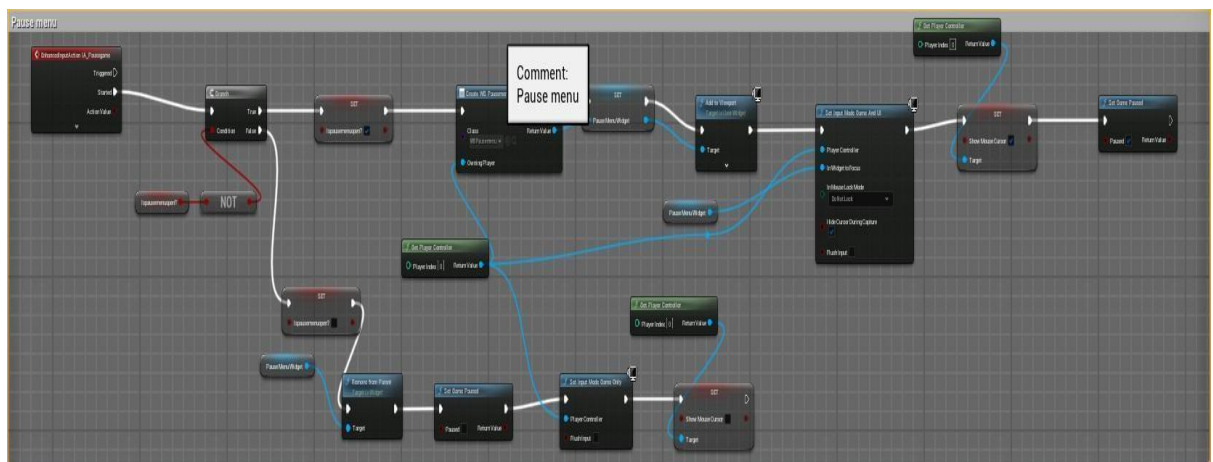
## Open Door:



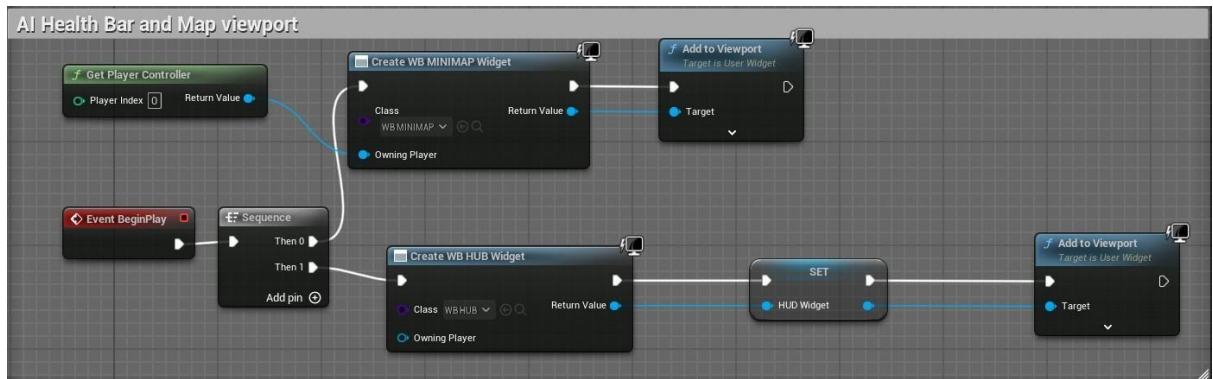
## Replay:



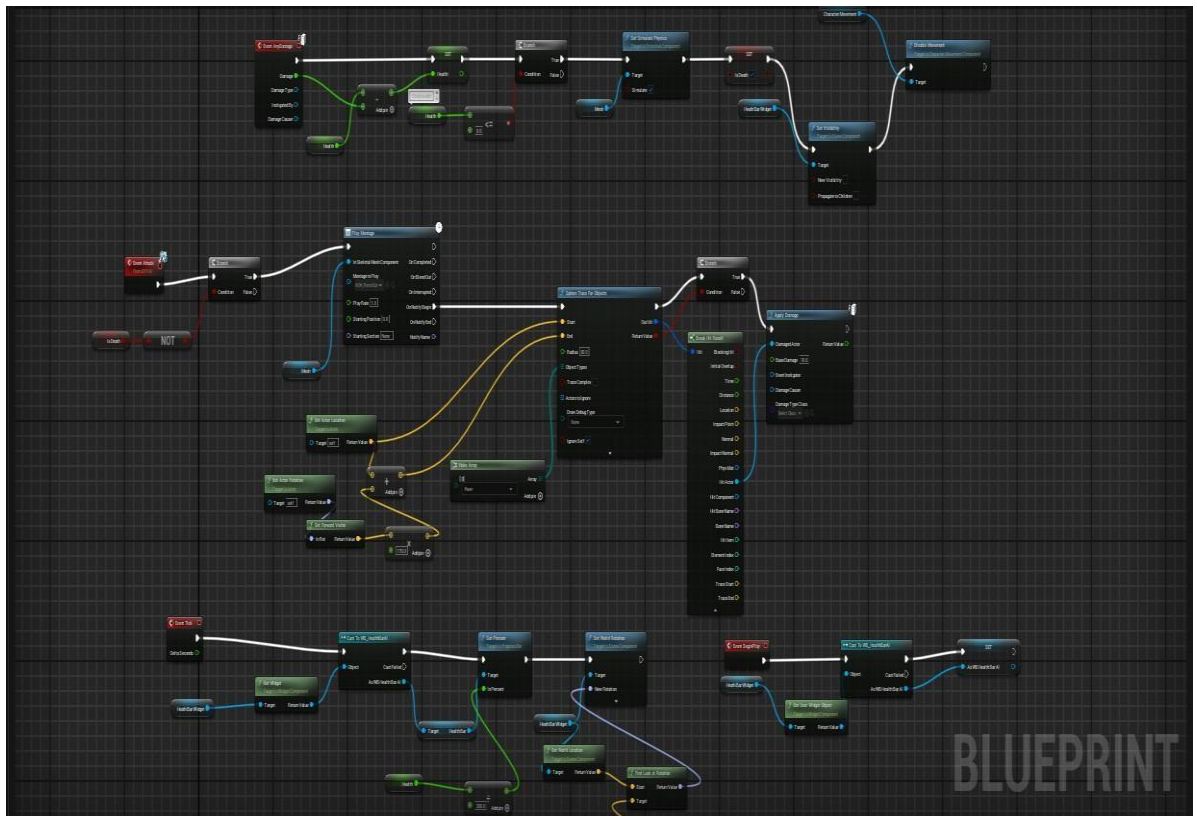
## Pause menu:



## Health Bar and Map Viewport:



## 9.2.2 Enemy Movement:



### 9.3 Audio:

Audio plays a crucial role in establishing the psychological horror atmosphere in Asylum, turning every hallway, creak, and breath into a source of unease. The sound design was carefully crafted to manipulate tension, build suspense, and immerse the player in the game's terrifying environment.

- **Ambient Soundscapes:** A chilling blend of ambient layers—such as flickering lights, echoing footsteps, low-frequency rumbles, and unsettling whispers—creates a constant feeling of being watched or followed. These soundscapes shift dynamically based on player movement and location, reinforcing the sense of dread.
- **Character Dialogue:** Distorted voices, cryptic monologues, and emotionally charged dialogue deepen the narrative and enhance immersion. Voice lines are sometimes intentionally unclear or overlapping, creating a disorienting and paranoid experience for the player.
- **Sound Effects:** Every sound is designed to provoke a reaction. Sudden metallic bangs, distant screams, and grotesque creature noises are used sparingly but effectively to shock and unnerve players. Environmental cues—like broken glass, dragging chains, or slamming doors—add realism and heighten tension.

### 9.4 Software's Used:

- Unreal Engine
- Blender

## 10. Conclusion

**“Escape from the Forest”** offers a thrilling, immersive experience where survival, exploration, and combat are key. Set in a mysterious, fog-filled forest at night, the game challenges players to navigate an eerie world filled with dangerous creatures and hidden secrets. By combining atmospheric tension, resource management, and puzzle-solving elements, the game creates a gripping narrative that keeps players on edge. The immersive first-person perspective, along with intense encounters and the need for strategic decision-making, ensures an engaging gameplay experience. Ultimately, **“Escape from the Forest”** promises to deliver a memorable survival horror adventure that captivates players with its haunting atmosphere and intense action.