Abstract: A horror experience set in the snowy woods. The player explores the supposedly abandoned shed to hunt down paranormal activity. As the player moves through the environment, they will encounter objects that will establish atmospheres of fear and anxiety.

The interactive environment project's topic/theme will be an entirely fictional topic of investigation. The topic will be a horror experience that takes place in the woods in the middle of nowhere. My topic will mainly focus on an atmospheric and ambient environment rather than jumpscares and surprises. Suspense and uncertainty are also aspects that will be included in my project to make sure the player/viewer is fully immersed and aware of their entire surroundings while experiencing the project. The horror topic will be addressed in this small yet detailed environment by going to a supposedly abandoned shed within the forest, which will include objects and hints that may send anxiety and uncertainty to the player. The project will include a short narrative, where the player is a paranormal hunter and is told by their boss to explore the abandoned shed to discover the mysteries behind the shed and its owner. As the player goes through the environment, they will try to find out why there is paranormal activity and why someone is living in the middle of the woods. The title for this project will be called "The Barren Land".

My project takes a lot of inspiration from the survival horror game *Resident Evil Village*. The environment is a snow-filled forest with a rundown shed, which is similar to the setting of Village. The blue and foggy atmosphere and "feel" is also similar to Village's. Aspects of horror and suspense in my environment also take inspiration from the game, as in both the player traverses through unknown and barren territory.

The media the environment will present are plentiful amounts of nature, interior and exterior objects. Most of the nature objects, such as trees, rocks, branches, grass, and terrain textures are from the "Real Landscapes" asset pack. Included are high quality models and textures to give the scene a realistic look. Dynamic animations such as snow and wind controllers are also from the real landscape asset pack. Objects such as the shed, interior objects, toilet, and snowman are from separate asset packs. All of them have a unique way of presenting "horror" to the player, where there are sounds and animations to make players feel uneasy. There are snow, fog, and fire particle effects, which add more to the atmosphere. Interior objects include certain objects that will add to the interactive experience, where players will react to animations/on-trigger events for the objects.

The idea for scripted events is to create an anxious feeling while playing. For interior objects, like a clock or goat-head, the intention is to add animation such as the clock dropping to the floor with a glass cracking sound and the movement of the goat head while it is speaking. Other ideas include the fire for the campfire going out when the player is in a certain position, or the snowman moving when looking away or getting closer. I also plan on adding an NPC that will look from afar towards the player and will slowly move closer, which has to do with the horror experience and narrative.

The scene will include audio to add more immersion to the environment. As of now, the project has:

- Ambient background sounds of grass and trees rustling, wind whistling, and birds chirping to add more to the forest atmosphere.
- Sounds of door banging from the wind in the toilet.
- Voice lines for the goat head.
- Voice lines for the snowman.
- Antonio Vivaldi's The Four Seasons Winter playing on the radio.

Sounds that will possibly be added are:

- Ambience for interior
- Glass shattering
- Voice lines for NPC

Since the project will run on the oculus build, the intention is to add pickups for objects to add immersion to the scene. The use of vr controllers will allow the player to pick up any objects within the shed in the environment. The use of VR headsets will also add to the experience a sense of immersion and agency, as viewers will experience it through their own eyes in a true first-person view.

While the objects and events define the aspects of the horror environment, the most important part of the project will be the post-processing. Included effects include:

- Ambient Occlusion: a shading technique to darken corners of objects. This fits more to the "forest" and horror experience.
- Bloom: Adds a glow (in this case blue) to the scene.
- Vignette: Adds shadow and reduces brightness of the edges of the camera to add more focus to the center.
- Motion Blur: Add streaking effects when the camera moves to replicate realistics eye movement of a human.
- Color Grading: Adds to the atmosphere and environment by adding color effects. In this
 case, temperature, saturation, contrast, and a blue color filter is added as a stylistic
 choice.

The scene is colorless and barren without the use of post-processing effects. Adding these effects contribute to the "horror" I intend to display in my scene. These filters are also inspired by *Resident Evil Village*'s colors within its environment.

As I said before, there will be a narrative for the scene as well. It begins with a paranormal detective/hunter (you) who was tasked to investigate an abandoned shed in the middle of the woods. Your boss tells you to check out the place and to do it fast. After a long drive to the forest, you see that the place was not left behind. There is still a campfire that is still set on fire, and radio and lights that are turned on. As you move into the shed, you realize there is something suspicious about it. You will find out who lives there and why someone is living in the shed.

The intended audience are those who are fans of horror films and games. However, those who wish to experience the atmosphere of the snowy woods and emptiness of abandoned buildings would enjoy this experience. While there aren't that many jumpscares or surprise elements compared to other horror films and games, I believe the atmosphere and sense of uneasiness and anxiety add to the immersion and would be a good fit for the intended audience.