Gashashi: Horror Themed 3D game

A PROJECT REPORT

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BONAFIDE CERTIFICATE

Certified that this project report titled **"GASHASHI"** is the bonafide work of **"Abdus Shafiq (22BCG10173), Shefali Dewangan (22BCG10088), Gautham Ashok (22BCG10159), Kanishka Prajapat (22BCG10131), Riya Raj (22BCG10119)"** who carried out the project work under my supervision. Certified further that to the best of my knowledge the work reported here does not form part of any other project / research work on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

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ABSTRACT

This project report presents the development of a 3D game “Gashashi”, highlighting the key aspects of our game creation journey. We embarked on this endeavor to design an engaging and enjoyable gaming experience. The report covers the game's concept, design, development process, challenges faced, and the final outcome. Our aim was to create a fun and interactive 2D game that showcases our creativity and technical skills. The report provides insights into our game's features, mechanics, and the technologies used. Overall, this project demonstrates our commitment to game development and our passion for creating 2D games. This document provides detailed insights into the game's features, mechanics, and the advanced technologies employed during its creation.

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1.INTRODUCTION

1.1 Introduction

“Gashashi” is a chilling and immersive horror game that plunges players into a world of despair and darkness. As the player ventures through a dark forest, they must fight off zombies to proceed to the end, surviving the miseries the dark forest has plunged onto the them, escaping the clutches of darkness.

1.2 Motivation for the Work

The motivation for "Gashashi" arose from our willingness to learn and create the best experience that we can provide a player in the 3D world. We aimed at creating a game to completely engage the player in the realistic environment.

1.3 About Introduction to the Project (including techniques)

We introduce “Gashashi” as an immersive horror game with spine chilling sound effects and nerve-wracking visuals.

1.4 Problem Statement

The problem we aimed to address is the lack of 3D horror games in mobile. We wanted to overcome this challenge by creating a game that offers an enjoyable experience.

1.5 Objective of the Work

Our objective was to create "Gashashi" as an engaging gaming experience. We strived to offer players a chance to experience horror as though they are experiencing it in real life.

1.6 Organization of the Thesis

This thesis is organized into several sections that detail the game's development, including the concept, design and technical aspects.

1.7 Summary

In summary, "Gashashi" is a project born from the curiosity and passion for 3D games and this report will take you through the journey of how we achieved this blend, presenting the game's development process.

2.LITERATURE SURVEY

2.1 Introduction

This literature survey is an exploration of the existing knowledge and methodologies relevant to our project, "Gashashi". While our game is a basic horror game, we have delved into related areas to understand the broader context of game development.

2.2 Core Area of the Project

The core area of our project is the development of "Gashashi" a straightforward horror game. This area primarily focuses on game mechanics, design, and user experience.

2.3 Existing Algorithms

In our literature survey, we found several existing algorithms used in the development of horror games. While "Gashashi" is not a complex game, we explored these algorithms to gain insights into enhancing gameplay. These include:

2.3.1 Algorithm1

Algorithm1 is development of AI based enemies. The algorithm makes the enemy behave in a described manner pertaining to the situation that they encounter.

2.3.2 Algorithm2

Algorithm2 offers insights into game physics and collision triggers that are an important aspect to developing an FPS shooter game.

2.3.3 Algorithm3

Algorithm3 gives information about the environment and the visual aspects of our game. The game is graphically immersive, we learned these algorithms to ensure alluring visuals and optimal gameplay.

2.4 Research Issues/Observations from Literature Survey

The literature survey gave insights on the basics of game development that helped us to understand game logic and actor manipulation. Although it did not pose any issues regarding the development of a horror game per se, we found the survey to be helpful as it set foundations for the 3D game.

2.5 Summary

In summary, the literature survey helped us to grasp the basic knowledge of game physics, level design & development, game modes and many more such concepts that are used in all games and not just horror games like "Gashashi". We reviewed existing algorithms and methods to ensure that our game was optimized for the best user experience and gameplay, drawing from the principles and practices of the wider gaming community.

3.SYSTEM ANALYSIS

3.1 Introduction

In this system analysis for "Gashashi" we create a clear picture for developers and players alike how to create and design a horror experience and what specific elements that can be implemented in horror games in order to actually make a horror game that instill fear in the players that experience the game.

3.2 Disadvantages/Limitations in the Existing System

The existing system has some limitations:

Limitations: In windows there are many horror games but on android platforms, there are a limited number of horror games that are not very enjoyable to play.

3.3 Proposed System

To address these limitations, we propose:

3.3.1 Platform availability

We plan to create this horror game for android platforms specifically but we have also decided to widen our platform availability to windows and VR to draw out the emotions of the player.

3.3.2 Enhanced Gameplay Visuals

Through this project we will encourage a deeper dive into giving the user a realistic experience of our horror-based game.

3.4 Summary

The proposed game aims at enhancing user experience while being abundantly available in the android market. We aim at providing an engaging and spine bending experience to the user.

4.SYSTEM DESIGN AND IMPLEMENTATION

4.1 Introduction

In this section, we will outline the system design and implementation for "Gashashi". We'll break down the game into modules to provide insights into its structure and functionality.

4.2 Module 1 Design & Implementation for Actor Development

Module 1 is focused on developing AI enemies, game physics and triggers. It includes:

Design: The enhanced enemies using advanced Artificial Intelligence are capable of tracking the player through various ways, by sense of hearing, sight and damage that the player causes to the enemy. The game physics involved make the FPS game more immersive by incorporating reload mechanisms and given existing ammo to play the game.

Implementation: This module has been implemented using the vast and diverse platform of the unreal engine software that provides with a visual scripting language called “Blueprints”.

4.3 Module 2 Design & Implementation for Environment

Module 2 focuses on the development of the environment. It involves:

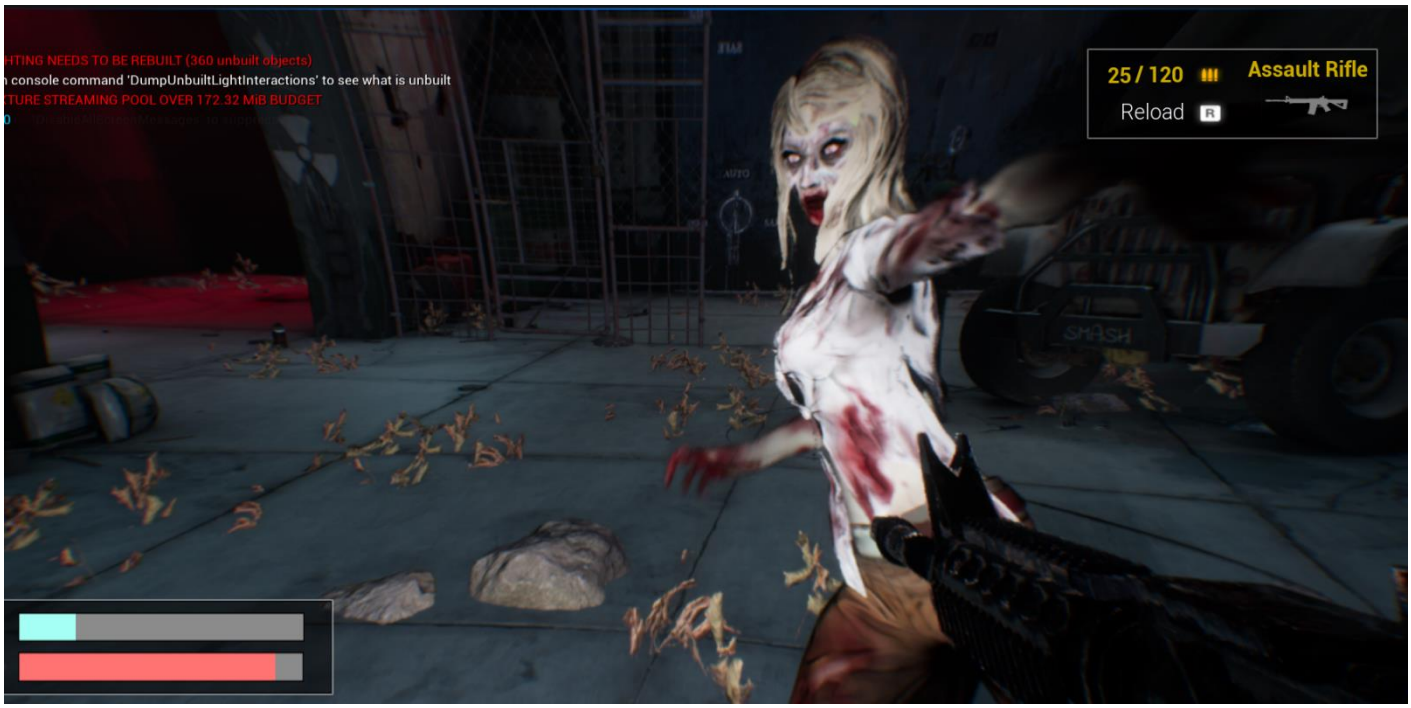
Design: We have created a realistic environment by importing assets and designing a level for the player to play on centering around a dark themed forest and an abandoned shackle houses with spine chilling sound effects.

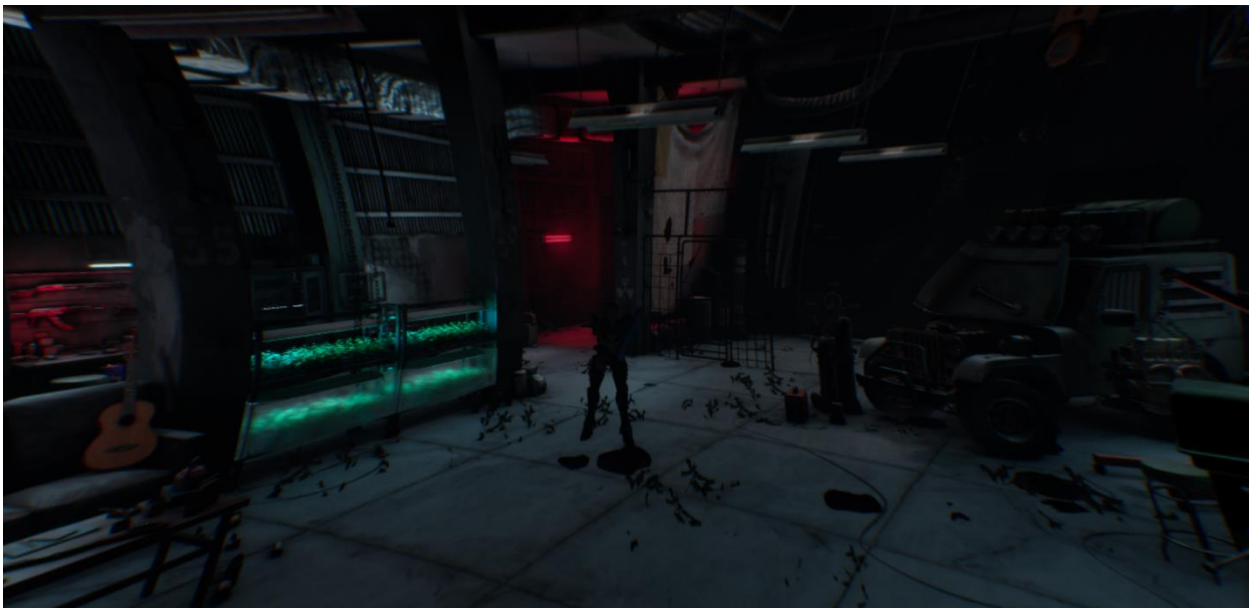
Implementation: The implementation of this module took place in the unreal engine software from where the assets were incorporated into the level and the sound was included through Blueprints.

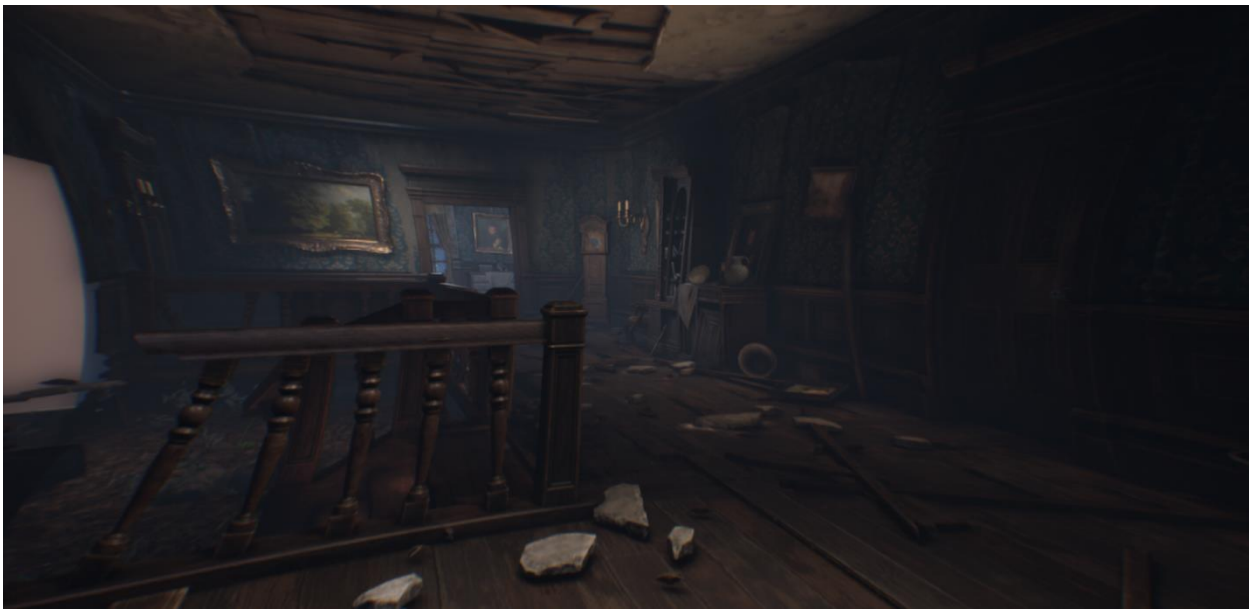
4.4 Summary

The system design and implementation for "Gashashi" includes clever and smart AI enemies that are fun to tackle along with contributing to the game's functionality and player experience. These modules are meticulously designed and expertly implemented to create a seamless and enjoyable gameplay environment.

SNAPSHOTS:


HTING NEEDS TO BE REBUILT (360 unbuilt objects)
console command 'DumpUnbuiltLightInteractions' to see what is unbuilt
TURE STREAMING POOL OVER 172.32 MiB BUDGET
25 / 120
Assault Rifle
Reload
R





5.PERFORMANCE ANALYSIS

5.1 Introduction

This performance analysis for "Gashashi" evaluates the performance of the game. We'll measure its performance using specific metrics and present our findings in a clear and concise manner.

5.2 Performance Measures

We will use game analytics and usability testing for analyzing the performance of our game and incorporate feedback enthusiastically.

5.3 Performance Analysis

Enabling users to play the game “Gashashi” has resulted in interesting insights on our game and many more aspects where we can cover the features where we lack in. By calculating and considering valuable feedback we have made the UI of the game more interactive and have used this analysis to make sure that our game is progressing smoothly by iterating the analysis process.

5.4 Summary

In summary, the performance analysis of "Gashashi" works on enhancing the User Interface and experience. By incorporating the necessary feedback, we can iterate the development process to make our game more optimal.

6.FUTURE ENHANCEMENT AND CONCLUSION

6.1 Introduction

We look forward to the future of the game “Gashashi” and plan to introduce it to bigger platforms like windows and Virtual Reality.

6.2 Limitations/Constraints of the System

"Gashashi" is a thrilling and horror themed game, but there are certain limitations to it such as the absence of multi user friendly platform, a cleaner development and accurate optimization

6.3 Future Enhancements

In the future, we aim to address these limitations and constraints by:

Multiplayer mode: Two players will be able to fight side by side and proceed further in the level defeating the enemies as they go by.

Enhancing Graphics: We will make the visuals clean and sound in the future.

Incorporating Advanced Obstacles: To make the game more challenging, we will introduce advanced obstacles and interactive elements.

Introducing character features: We plan to incorporate certain features to different characters by giving the user a wide range of guns and rifles to choose from as they clear levels.

6.4 Conclusion

In conclusion, "Gashashi" has been a very interesting project to work on and we are enthusiastic about the future it holds. We plan to work on incorporating all the other features that we can to make our game exciting for the user. With every feedback we get, we will analyze and strive to make our game better for the users, providing them with an explorative and clean environment to play in.

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