Fear Of My Dreams Technical Report

Degree Programme Name: BSc (Hons) in Computing

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Contents

Executive Summary

Fear of my Dreams is a first-person RPG (Role Playing Game) game made in the Unreal Engine 4 this is one of the mostly used game development engines used today. The objective of the game is to collect all the goals in the level to escape the dream that the player is trapped in. The level puts the player up against three different enemies in the game that are all part of escaping the dream. As the player progresses though the levels the player must find all the goals to leave the dream but while the player does this there will be grouping of enemies throughout the level which will try to stop them as the move around finding the goals to escape. The progress of the player will be tracked so that will know how many goals they have collected and how many they still have to collect in the level and if they do not complete the level they will be returned to the main menu of the game. As the game starts the player will be drop in a house and they must exit the house to the outside to find the goals to escape the dream. The HUD/UI of the game is easy and simple so as not to confuse the players. There will be a guide telling the player about each part of the GUI so that the players will not be lost playing the game. When the user completes the game, they will be told that the game is over then return to the main menu of the game.

Introduction:

Game Concept:

Fear of my Dreams is a first-person RPG horror game that puts the character Adam in one of his past nightmares when he was a child and he must fight the demon of his nightmare and find the keys to escape the dream so that he can go escape the dream to wake up. He wakes up in a house that is not familiar to him and a place that reminds him of an old block of houses that he used to live by when he was a child. The enemy demons remind him of the old drawing he drew when he was a child. So now he must face his childhood nightmares and escape to the real world.

Background:

At the beginning of the research into the background for the development of the project. I decide that it will be a game as I have an interest in the gaming industry and various games. At the start when I decide that I will be doing the game I consider how gaming has changed over the years and the industry itself. When the industry started, it was very small with only small companies making that game which took them serval years to develop them as they had to first make the tools to develop the game and then they would have to make the game in the engines they made for the games. After the industry started to make a name for itself more people started to notice and then more companies start to make game for them like Sony, Nintendo & Microsoft. In the earlier days, they were still very basic game to today's games which are much bigger. In recent years, the gaming industry has become much larger and the gaming industry is now linked to nearly everything in some way. With this been the case more people are playing games and developing technology that they would use in their game they are also using them in everyday tasks.

One of these companies is Unreal which is a well-known gaming company for their gaming engine that companies have been using over the years. The Unreal engine is in its fourth generation with the Unreal Engine 4. Which is their most successful gaming engine that unreal have to date as lots of companies are using it for their own games but Unreal themselves are encouraging colleges to tell their students about the engine and how it can be used to start making their own games with their engine. The Unreal engine is easy to use if you have used other gaming engines but it you are using it for your first time there is lots of different document on their website with simple to follow guide that make it easy to learn and when they feel more comfortable with the engine they could do most of the work in the engine without the help from the unreal guides and other documents they use to help teach people to use the engine.

Unreal also started a good few years back with their engine only been used by them for their games. They made serval games with their engine when that first became a company. Their earlier game were mostly shooter games that focused on that but after they decide that they would leave the games the focused most on developing the second engine after they made their first set of games When their second engine was develop that started making a newer game on this engine and it was very successful it was called Unreal Tournament. This was still one of their earlier game but they kept the game going when they moved onto their third generation of their engine and they also made the next evolution of the Unreal Tournament in this engine. When they finished with their game they then release the Unreal Engine 3 to the public so they could develop their own games. From then on, they work on the Unreal Engine 4 but only in recent years they give the public access to it and from then on it has moved up in the ranks in the gaming industry.

Research:

At the beginning research stage of my project I mostly focused on where to begin and what type of game and game genre I hope to use. I stared looking at some of the populator games at the time and the games that most people were talking about. I looked on various types of platforms (*Steam, Origin, Uplay and Play Store*) that game where been sold on and that rating they were get on them. From there i got a very simple list and the most populator genres that are out and coming out at that time and worked from there.
The genres I came across the most at that time were:

Role-playing
Strategy
Racing
Thriller
Horror
Survival RPG

Once I knew what type of games were populator I could move onto what best suited what I would like to make in a game and what genre best suited me for this. When I looked at the genres I collected from the platforms I looked into which I like the most by looking at which gave me the most freedom to work with as some of the genres limited me in some ways and others gave me way too much freedom which made it a bit harder to decide on how I wish to process in making the game.

So then when I decide that I would go with Horror as my genre I was happy that I could do what I need with the game and be happy that I could work well so that I would not lost interest in the development of the game. From here now I would have to decide on what game engine I would be using as well as the software that I would be using for the compounds of the game. For the research for the best engine to use I went back to some game platforms that were selling the game and I looked at the horror games and the engines they were using for the game. From this I found out that some of the more populator games were using private engines that were not available for the public use. Then I decide that I would consider what engines were the most populator to use by beginners in game development and what best suited the for developing their game at the time.

From here I found out that there were two to three big engines that beginner developers were using. These engines were Unity, Unreal Engine 4 and the Cry Engine. I had previously used the Unity engine so I was familiar with some of the features that the engine offered. Then I decide that I wanted to use a new engine and learn from using that engine so I decide that I would use the Unreal Engine 4 for this project. Once I knew what Engine I was using I then had to decide what way I was going to develop the game with code.

As I decided I consider the two ways that the unreal engine 4 offered and worked out the pros and cons of which was better to use and learn from. The unreal engine offers C# coding or their own Blueprint coding that is only available to the Unreal Engine 4. I know some basic C# coding for working with the Unity engine but if I was confused with some of the coding there isn't much help online for the C# coding in the Unreal engine so then I decided to look at the Blueprint coding system that unreal has and what help I can get from online if I was to get confused while coding this way. There was lots of different way of help on this so I decide that I would use the blueprint coding system that unreal uses and this would make it easy so that I would learn something new for this as I was working on the game. I finally decided that I would go with using the blueprint coding system that unreal engine 4 has.

For the next part of my research I decide what types of software I would use that would make I easy for me to implement into the game and that wouldn't take most of my time away from the developing of the game. I looked at what software's I know and looked online for software's that most developers would use for developing games. From this I already knew of a good few technologies I could use like Blender, Maya, 3Ds max, photoshop etc.. When I finally decide, what would work best for me and the time it would take to use I decide that I would be using Blender for the modelling of the 3D objects in the game, Photoshop for any editing of textures as well as making textures for the game and for the character I would use Abode Fuse and Mixamo website which work together for creating the characters, rigging and animating them.

Lastly I research what way I would like the users to play the game and how. I decide the PC would be the easiest to pick up and play the game as it could be played with a keyboard and mouse or a controller as the game would make it easy to use and navigate while playing the game.

Game Breakdown:

Overall Styling of the Game:
- The main genre of the will be Horror.
- It will be looking from the first-person view of the character (*this will make it feel like the player is the person in the game*.)

Environment (World Setting):
- The environment is set in the nightmare's housing block.
- Dark dream world made within the character's mind.
- No weapons for the player to use but their hands to defend themselves.

Characters Breakdown:
- You play as **Adam** a normal man that is having a hard time in his life trying to remember the game times in his life when he was a child and when life was easy. But on one night he gets dragged back into one of the nightmares he had when he was younger and now he is trapped there and much find out how to escape and where the keys to doing this are.
  - ***Enemies:***
    - The enemies of the game are old fragments of people from his past that have manifested a nightmarish character trying to stop him from escaping by any means and keeping him in the dream he has created.
      - Can kill the player
      - Can detect the player with sight and audio detection abilities.

Aims:

The aims of Fear of dreams for the game are broken down into two sections functionality and style to better understand all the aims for the game clearly.

The functionality Aims for the game are as follows.

- ✓ Create a first-person horror experience
- ✓ Create a fully level so that the player feels like they are playing a different level each time they play the game.
- ✓ Have access to change the graphic size in the fully build start menu.
- ✓ Have the functionality so that the players could use either a keyboard and mouse input or use an external controller input wired/wireless input.

The style objectives for the game are as followed:

- ✓ Create custom 3D assets made in blender. Theses custom assets will consist of the following:
    - o My own 3D objects that use throughout the game.
    - o My own 3D structures custom models used for the structures in the game.
- ✓ Create different character for the game so that it will not feel like you are fighting the same enemies over and over again.
- ✓ Create all character and rig them using Adobe Fuse & Mixamo and select their animation that will be used for different for each character.
- ✓ Create a large level so that the player doesn't get lost but can still know where they are going.

Technologies:

Hardware:

Controller:

The controller will be used to control and play the game, can be used wirelessly connected to the PC or connect with a wire to the PC so that it can play the game.

Keyboard & Mouse:

The player can use a keyboard and mouse to play and control the game if they do not chose to play the game with a controller or if they don't have access a controller. The game can also be played on a laptop but it would be hard for them to play with a trackpad so it is reamented that the player use an external mouse with the laptop.

Software:

List of software being used:

- ➢ Unreal Engine 4
- ➢ Blender
- ➢ Photoshop
- ➢ Mixamo
- ➢ Fuse

Brief software used:

The main parts of the levels and mechanics functionality will be built using the Unreal Engine 4 game system even thought that the Unreal Engine give you the tools to make most of the assets in the engine. I will use blender to create most of the custom 3D assets that will be imported into the Unreal Engine 4 and the textures will be made and edited in Photoshop and for the animation, character creation will be done using Adobe Fuse and Mixamo.

Unreal Engine 4:

It will use the unreal engine for these:

- ➢ Level Design
- ➢ Game Mechanise
- ➢ Game Layout (*UI, HUD & GUI*)
- ➢ Animation & movement of character assists
- ➢ Custom system design
- ➢ Management of assets and 3d models

Blender:

I will use blender for the following:

- ➢ **Main 3D Modelling:** the 3D assets & props that are used in the with the character and the structures
- ➢ **Main 3D Structure:** the 3D structure assets that use for the building in the game that the character moves around and interacts with.
- ➢ **Main Character Assists:** the 3D object that the character uses in the game while moving around.

Photoshop:

I will use it for the following:

- ➢ Environmental textures
- ➢ 3D Model textures
- ➢ Screen Textures
- ➢ In-game designs

Mixamo:

I will use Mixamo for the rigging of the character that were made in Adobe Fuse. When the characters are rigged by Mixamo then from the list of animations that Mixamo offers can select the animation that work the character for the game.

Fuse:

I will use adobe fuse for the creating of the character that will be used in the game and then when the characters are made they are uploaded to Mixamo for the rigging.

User Requirements:

The user requirements are as follows:

- ✓ The users must have a PC or a Laptop to run the game and they must by able to install the game on their device.
- ✓ The user must first have a keyboard and mouse to play the game.
  Or
- ✓ The user must have an external control that can connect to the device wired/wirelessly.
- ✓ The user must a valid fully build version of the game to play it.

Requirement Specification:

The requirements specification will give a number of variables that the user will receive while playing the game, they are:

1. The user will understand the controls and input required to play the game within the first 5 minutes of playing the game and using the menus.
2. The user will have a basic understanding of the story once they enter the level and started playing the game.
3. The user will have to search throughout the level to find the goals they will need to escape the dream and finish the level.
4. Once the user starts the game they will have to avoid the enemies so to complete the level if they don't they will fail to complete the level and lose the game.

Functional Requirements:

The functional requirements for the game are as follows:

- ✓ **Start Game**
- ✓ **Player Movement**
- ✓ **Play Game**
- ✓ **Settings**
- ✓ **Exit Game**
- ✓ **Complete Level**
- ✓ **Resume Game**
- ✓ **Back to Menu**
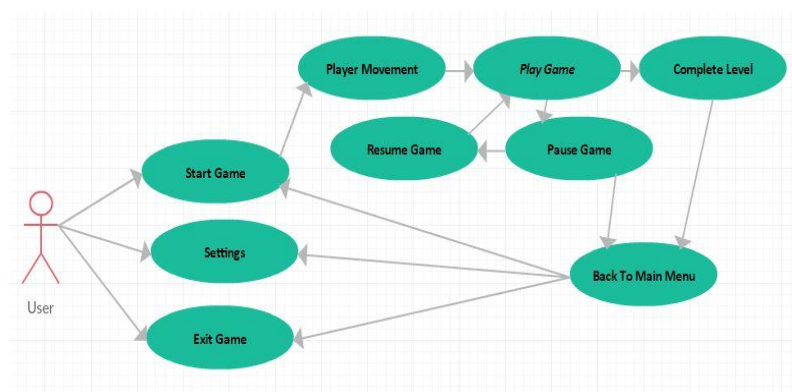
Use Case Diagram

Start Game

Description & Priority

This is one of the main function of the main menu and the user should be able to start the loading of the level from here which then will let the user to play the game.

Use Case

Scope

The scope of this use case is to let the user start the level up and then let the user play the game from the main menu.

Description

This use case describes the function of starting the game up from selecting the start game button from the main menu and when the user does this it will load the game to the game window.

Flow Description

Precondition

The game has start up and loaded the main menu to the screen.

Activation

This use case is active when they user selects the start game button from the main menu.

Main flow

1. The game has started up
2. The game loads the main menu to the screen.
3. The user then selects the start game button from the main menu on the screen.

Exceptional flow

1. The game has started up.
2. The game loads the main menu to the screen.
3. The user then selects the start game button from the main menu on the screen.
4. But nothing happens

Termination

The user closes the game from the main menu with the pause menu or close the game window.
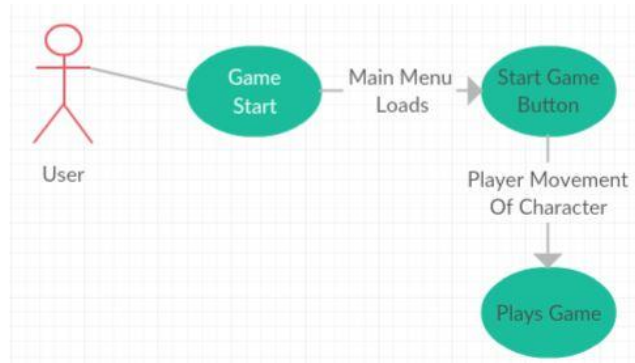
Post condition

After the user selects the start game button it will load the level and then it will open the level so the user can play the game.

Player Movement

Description & Priority

This is the main functionality of the game as the user plays the game they must be able to move around so that they can play the level and complete the game.

Use Case

Scope

The scope of this use case is so the user can play the game by taking the input from them and moving around the level of the game.

Description

This use case describes the function of the movement of the player character that the player must be able to do in order to play the game.

Flow Description

Precondition

The user has selected the start game button from the main menu and then the level will then be load so the player movement then be activated.

Activation

This use case starts when the level has loaded from the main menu and then the player has started giving input form the input device they are using.

Main flow

1. The level loads from the main menu
2. Then the users input sends input to the player movement from the device they are using
3. The game then takes the input from the device and move the players character.
4. The steps 2 & 3 continue throughout the whole level so that the player can move within the level.

Termination

This only stops when the player has stop giving input through the device they are using otherwise it does not terminate.

Post condition

There is no post condition from the player movement as there will always need to be some input from the player while they are playing the game.

Play Game

Description & Priority

The user must be able to move their character and collect the item within the level so that they can play the game.

Use Case
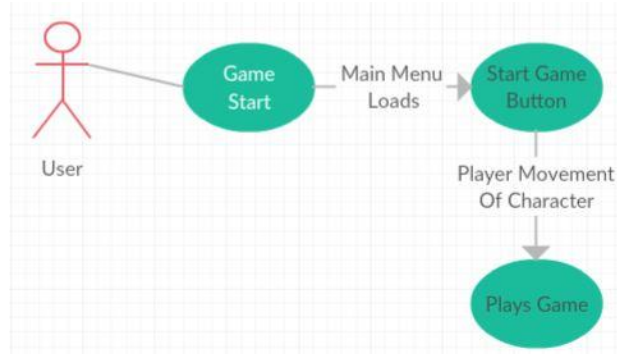
Scope

The scope of this use case is for when the user is playing the game and collecting the item within the level.

Description

This use case describes when the player is playing the game and collecting the item in the level.

Flow Description

Precondition

The user has selected the start game button from the main menu and then started to give input from the device there are using to play the level.

Activation

This is active when the user has started the level and give input from the device they are using.

Main flow

1. The level starts up.
2. The user starts to give input from their device.
3. The user moves around the level.
4. The user collects the items in the level
5. The user attacks the enemies in the level.

Termination

This is terminated when the level is completed and all the items are collect within the level.

Post condition

Still doesn't end until the player has collect all the item within the level other than that when the player dies in the game.

Pause Game

Description & Priority
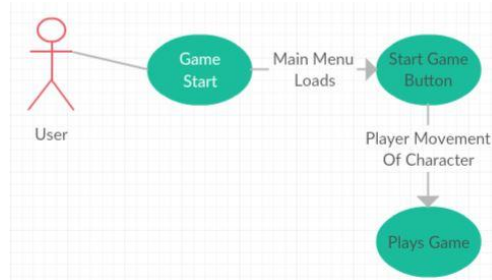
This is one of the main functions of the user while they are playing the game when the user selects start game in the main menu and the level loads then the user can pause the game which will enter the pause menu.

When the user wants to pause the gam in the middle of playing the game.

Use Case

Scope

The scope of this use case is to allow the user to open the pause menu from when they are playing the game.

Description

This use case describes the function of when the user selects the pause menu button from the controls while there are playing the game.

Flow Description

Precondition

The user selects the start game button in the main menu and the game loads to the level.

Activation

This use case starts when the user pushes the pause menu button which will load the pause menu to the screen.

Main flow

1. The user is currently playing the game.
2. The user pushes the pause menu button.
3. The pause menu loads to the screen.
4. The user has the option to choose from the menu.

Exceptional flow

1. The user is currently playing the game.
2. The user pushes the pause menu button.
3. The pause menu doesn't load to the screen.
4. The user repeats to try get the menu.

Termination

When the user selects the resume game which will bring them back to playing the game or when the user selects the back to main menu option to bring them back to the main menu.
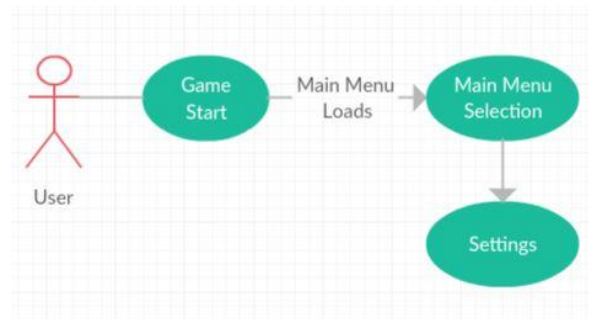
Post condition

The menu loads up the Pause menu to the screen giving the user the options to resume the game or back to main menu.

Settings

Description & Priority

This is one of the main functions of the user in main menu of the game when the game starts up. When the user wants to change the graphical settings of the game.

Use Case

Scope

The scope of this use case is for when the user wants to change the graphical settings of the game when the user is in the main menu

Description

This use case describes when the user enters the settings options when the game loads and displays the main menu to the screen.

Flow Description

Precondition

The users has started the game and the main menu has loaded up onto the screen so the user can make it selection.

Activation

This is active when the user has select the settings button from the main menu when the game loads the menu.

Main flow

1. The game has started up
2. The game loads the main menu to the screen.
3. The user then selects the settings button from the main menu on the screen.
4. The game then loads the options in the graphics section of the menu.
5. Then when the user has change the settings returns to the main menu

Exceptional flow

1. The game has started up
2. The game loads the main menu to the screen.
3. The user then selects the settings button from the main menu on the screen.
4. The game then doesn't load the options in the graphics section of the menu.

Termination

The games loads the main menu and exits the game.

Post condition

The game then loads the settings options for when the user has changed the options of the game.

Exit Game

Description & Priority

This is one of the main functions of the user in the main menu of the game when the game starts up.

When the user wants to exit the game.

Use Case
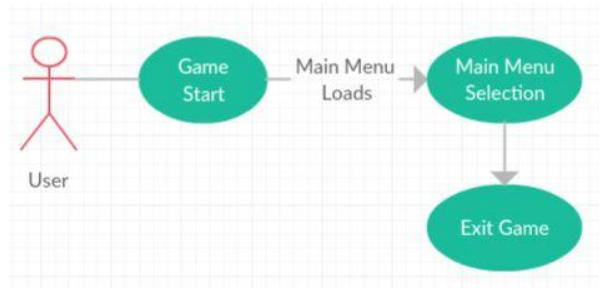
Scope

The scope of this use case is for when the user wants to exit the game from the main menu.

Description

This describes when the user wants to exit the game from the main menu.

Flow Description

Precondition

The users have started the game and the main menu has loaded up onto the screen so the user can make it selection.

Activation

This is active when the user has select the exit game button from the main menu.

Main flow

1. The game has started up
2. The game loads the main menu to the screen.
3. The user then selects the exit game button from the main menu on the screen.
4. The game then loads for few seconds
5. Then the game closes to the desktop of the computer.

Termination

The games loads from the main menu and closes the game.

Post condition

The games loads from the main menu and closes the game.

Complete Level

Description & Priority

This is the main goal of the game to collect the items in the level so that the player can escape the dreams and complete the level.

Use Case
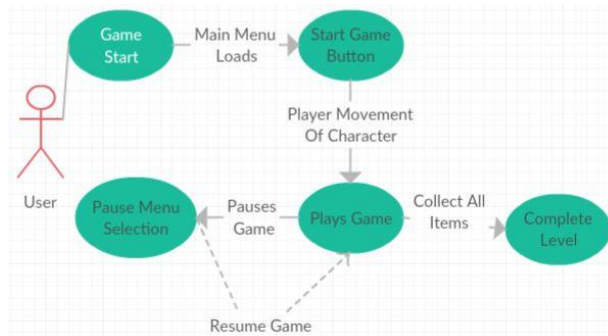
Scope

The scope of this use case is for when the user has collect all the item throughout the level.

Description

This use case describes when the user has collected all the items in the level and when they have the level will end.

Flow Description

Precondition

The user must be playing the game and collect all the goals so that the user can process through the level.

Activation

This is active when the user has collect all the goals in the game so when they have them all they can complete the level.

Main flow

1.   The game has started up from the main menu.
2.   The user is playing the game.
3.   The user is collecting the goals to complete the level.
4.   The user collects all the items in the levels so to complete the level.

Alternate flow

1.   The game has started up from the main menu.
2.   The user is playing the game.
3.   The user doesn't collect the items in the level.

Termination

This is terminated when the user has collect all the items within the level so then the level end.

Post condition

After this is done the level will end and then it will display an end screen to the player telling them they have completed the level and then they will return to the main menu.

Resume Level

Description & Priority

This is one of the main function of the pause menu for when the user wants to return back to the game and continue playing while they were not able at that time.

Use Case
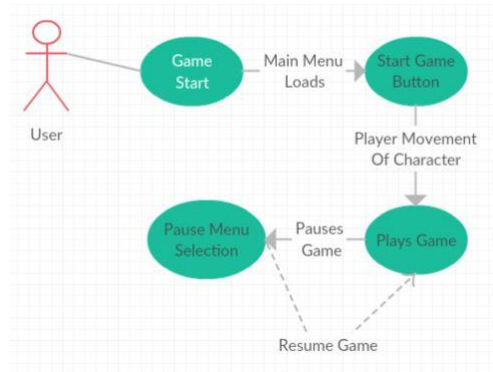
Scope

The scope of this use case is to allow the user to return back to playing the game from the pause menu when they are playing the game.

Description

This use case describes the function of the user returning back to playing the game when they are in the pause menu and then selecting the resume game button from the menu options.

Flow Description

Precondition

The user pushes the pause menu button while playing the game to display the pause menu to the screen.

Activation

This is active when the user selects resume game from the pause menu when the user has entered the pause menu.

Main flow

1. The user selects the pause menu button from the control while playing the game.
2. The game then loads the pause menu to the screen.
3. The user then selects the resume game button from the pause menu options.
4. The game then returns to playing the level.

Alternate flow

1. The user selects the pause menu button from the control while playing the game.
2. The game then loads the pause menu to the screen.
3. The user then selects the back to main menu button from the pause menu options.
4. The game then loads to the main menu screen.

Termination

When the user selects the resume on it will close the pause menu and return the user back to playing the game.

Post condition

When resume game is select it will bring the user back to playing the game to continue play.

Non- Functional Requirements:

Performance/Response time requirement

The performance requirement is decided by how the user's PC can handle the running of the game. This is determent by how well the hardware is in the user's PC is using. The performance can be change when the user changes the graphic sizing in the options settings.

The settings that are set will determine the response time for the game when the game boots to the in-game actions, for this reason I will include some options in the main menus options menu it will let the user change the graphics size in the settings, so the players can adjust to keep with the machine needs.

Availability requirement

The user can have full access to the game as there is no need to be connect to the internet as this will have no online assets so this mean that the users can play the full game and have no need to go online to get further content for the game.

The Game can be possible accessed on multipliable platform these platforms are as follows:

Option 1: Deployed to social media or websites

- ✓ Can add content to a site that is design for the game or other sites that offer the game on their site for users to test and play.
- ✓ This can give the owner of the content full control of the content or near full control of this content as it may only limit the content so to who only knows about the game and where they can find the game.
- ✓ Place their content on social media can be good if they wish to get users to test their content but may not be the best case for the full game if the owners wish to include a pricing to their content.

Option 2: Digital Online/Offline Distributors

- ✓ Can use a basic digital copy on the game by using a disc to store the content on it.
- ✓ Can be placed on steam greenlight marketplace which gives users an account to vote for what enters to the marketplace and what gets a place in the main steam market place.
- ✓ Greenlight gives users access to the beta of the game so that it can be tested so to give the owner record number of statistics so that the can change content to improve their content
- ✓ Greenlight gives users access to game as it will give each game equal viewing time so that it can be seen by every user if they are search as steam greenlight is still a small social media group this give user a better rating at knowing what is needs to be changed and is good in their content
- ✓ Set control over how the pricing is set on their content

Option 3: Unreal Engine 4 Marketplace

- ✓ Unreal provides users with the availed to add their content to the market place allowing them to charge a price for their content or giving free access to their content.
- ✓ Set limited control over the content as unreal has the final conformation on what content goes on their marketplace as what doesn't
- ✓ Has limit feedback for the content on the marketplace as only gives the owner download count.

Recover requirement

The recover requirement is that the user should be able to access the game as long as the game on the PC or Laptop that the game install on as there is no need to mess with any other file to play the game or to run the go on the device.

Reliability requirement

The game's reliability requirement should be easy as the game must always be able to run and execute for a .exe file. When the .exe has been executed the Unreal Engine 4 should take over and apply the settings for the game. The game should also be compatible with most external controllers, keyboards and mouse as if they wish to use either for the game as the game should play with both.

Portability requirement

The portability requirement for the game is that the game should be able to be play anywhere as long as the user has a PC or laptop as this is all that is needed to install the game from the .exe file and that is all that is needed to install the game on the device and play.

Security Requirement

There is very little to no security needed for the game as the game does not require access to the internet while the user is using the game. Therefore, the only requirement the users need is to ensure that they can have proper security/ access to the machine they are installing the game on as the game should only be executed with a .exe file to install the game.

Reusability Requirement

The 3D assets that are used in the game can be reused if the game is to be changed in the future or if they wish to include more content to the game like future content for the game or other game. These assets could all so be used on gaming marketplace for other user's games as these assets could be changed to be used on these marketplaces.

Implementation:

Each of the implementation sections are breakdown into detail parts that are implemented into the game.

Main Menu implementation:

The Main menu is simple to understand as there is only three option to choose from on the Main Menu. The blueprint for the Main Menu is broken down into the three menus button. The Start Game button when it is selected is loads the level for the player and when the level loads is removes the menu from the screen and gives the player in-game controls of the character. For when the controls are active for the player to play the game they can only use the mouse only in the main menu to select the menu options or the controllers controls to do the same while in the game. The exit game button will just activate a control to close the game to the desktop of the computer. The options menu will open the hidden panel that holds the options settings so that the user can change the settings to suit their machines. The settings let the user change the quality of the graphics size.
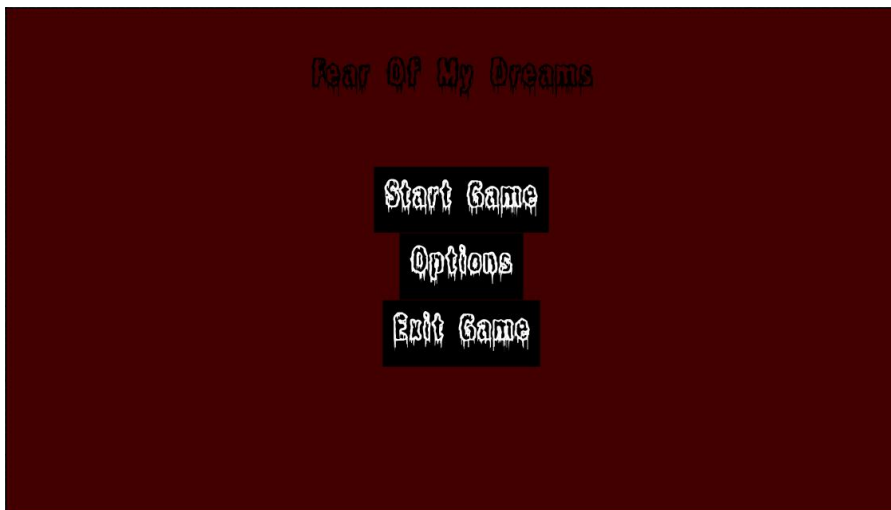
Main menu screenshot showing what will details will be displayed to the player.

Main Level Implementation:

The main level environment is broken down in two area. The housing block and the outside areas of the block.
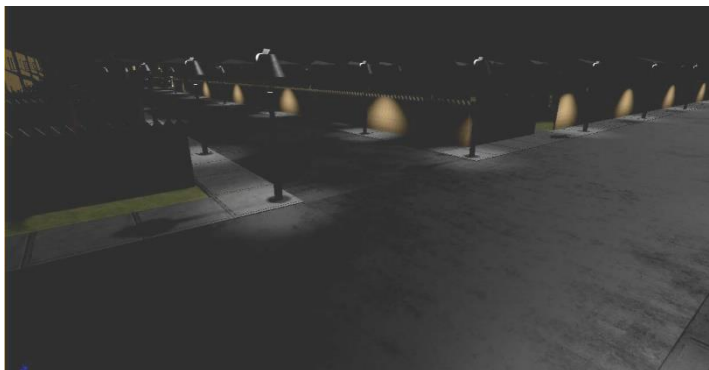
The Housing block is filled with serval houses that the player can enter as well as a small park in the centre of the houses. The player can move around the houses as well as the park attacking or avoiding the enemies that roam the level.

The outside of the housing block is a small forest surround the houses that the player can also roam around search for the keys to escape the level. Each of the areas will contain different amounts of keys for the player to collect to escape the level.

Pause Menu

Menu Breakdown:

The Pause menu is only used in the game when the play wishes to pause the game while they can't play. The pause menu gives the user access to resume play which will bring them back into the game so they can play or they can go back to the main menu by selecting the Quit to main menu button from the menu.

The Resume Game takes the pause game and un-pauses the game for the play giving the play access back to the in-game controls and removes the pause menu from the screen so that the player will be able to continue playing the game.

The Quit to main menu button executes a command in the unreal engine that opens the main form a different section of the game so that the player can use the menu. The controls are not changed as the player will have the same controls as the pause menu and not the in-game controls.

Main Character Implementation:

The main character was created within the Adobe fuse program. It was made in different parts while using the software. Firstly, you need to select all the individual parts of the body and then when that is done you can then model the character to the way you want the character to look. When the character was created, you can then apply the clothing also within the software and design how the clothing should look on the character.

Controls:

The controls of the player were set in the project settings within the unreal engine itself. These settings were set to action keys that are set so that when they are called in a blueprint. Each key or mouse axis is set in the project settings of the game so when the input axis is called in the blueprint the corresponding keys are then activated then they will perform the action that is set for the keys from the blueprint and the settings. If the keys are set under the move forward or backwards they take the vector of the axis and then apply this to the movement they use when the character moves in the game. This is the same for the left and right axis movement for the player. For the mouse is a little different as it takes the axis as X & Y for X been up and down and Y left and right while moving the player camera.
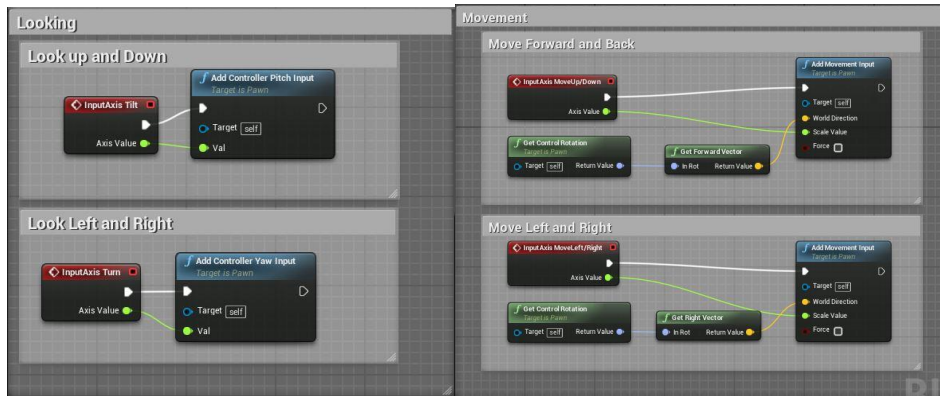
The in-game controls for when the player activates the pause menu the player presses the set key then when the keys are released it takes some of the controllers from the player and letting the player only use the mouse to select the options on the menu and then the pause menu is then displayed to the screen for the player to use.
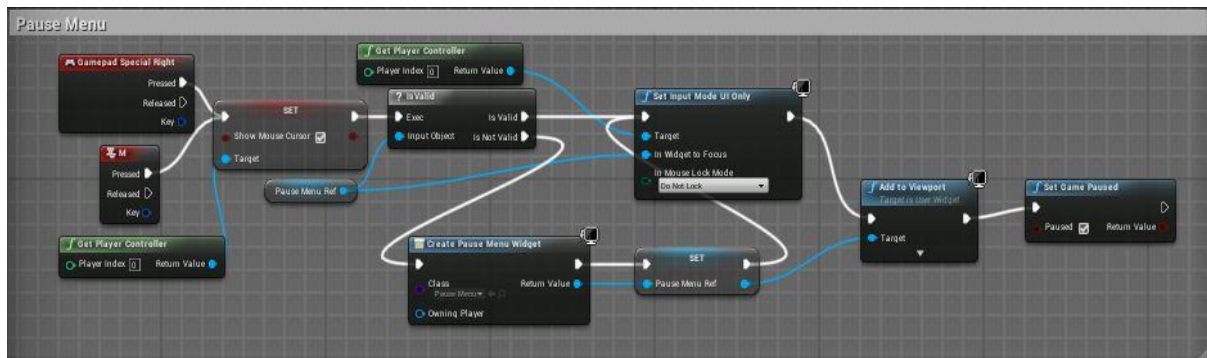
Animation:

The animation for the character are broken into three parts first is the blends for the animation of the character. The blend takes the animation of the character and then set them to a graph like form with the idle animation being at the bottom of the graph with a speed of zero with means that the player isn't moving and when the player starts to move it moves the graph into the next node on it with this being walking animation of the character this is the half way point of the idle and running animations. When the player character passes the walking speed it moves into the running animation of the character. This is the final stage of the animations for the character.
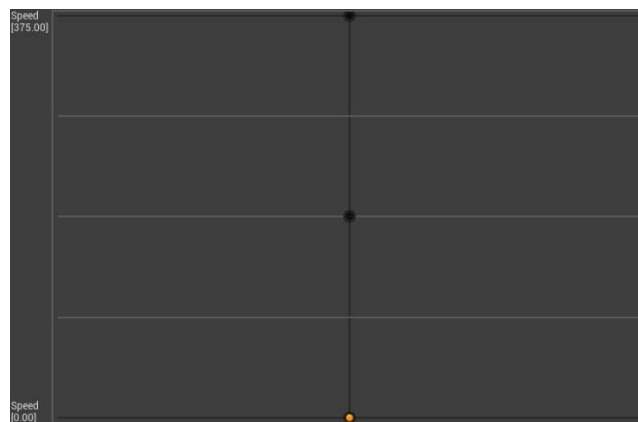
Enemy Character Implementation:

Enemy AI:
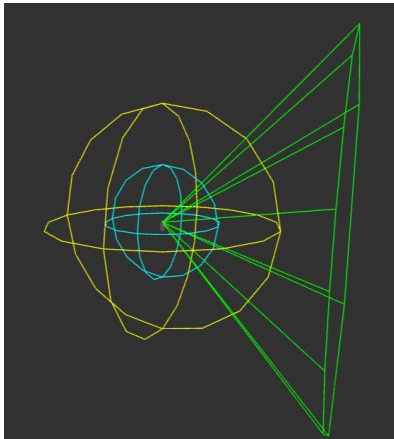
The enemy characters AI works in two ways first is the pawn sensor that is attached to the characters Blueprint models. This is the eyes and ears of the character the pawn sensor acts as the eye for when the enemy is search for the player as the enemy roams the level. The pawn sensor works by taking the enemy character and setting itself as the source. When the character comes into view of the pawn sensors view the next part takes control by taking the source and then taking the player characters' location and moving the enemy character by taking its speed and moving it towards the player's character trying to catch the player so that the enemy can interact with the player.
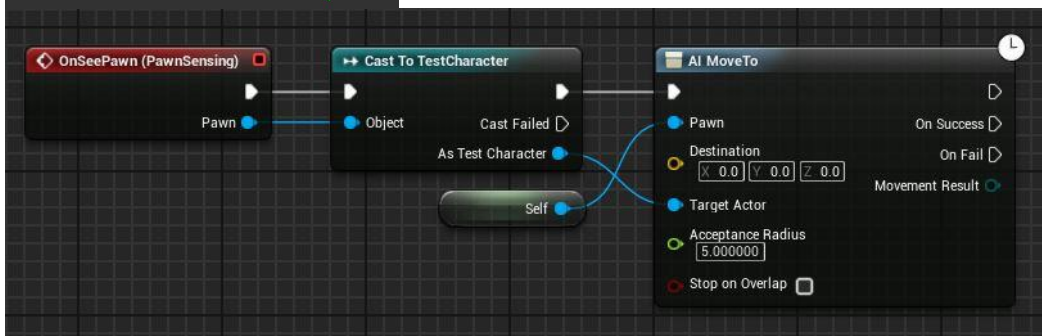
The second the part of this is related to the nav mesh bounds that is set within the games level. The nav mesh bounds is the area that lets the Enemy AI control where the enemy can move to within the level. This nav mesh takes all the models in the level and generates all the nav mesh walkable areas that the enemy can walk on within the level. This lets the enemy character roam the map search for the player within the level. While the enemy roams the map, it will use the pawn sensor as well as the nav mesh so that it can search the level as well and attack the player.

Enemy Animations:

The animation for the character are broken into three parts first is the blends for the animation of the character. The blend takes the animation of the character and then set them to a graph like form with the idle animation being at the bottom of the graph with a speed of zero with means that the enemy isn't moving and when the player starts to move it moves the graph into the next node on it with this being walking animation of the character this is the half way point of the idle and running animations. When the enemy character passes the walking speed it moves into the running animation of the character. This is the final stage of the animations for the character.

Testing:

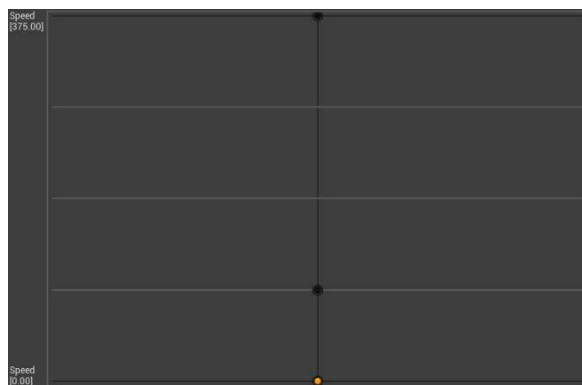### Overview

Testing is really needed in gaming as if there is no testing done then if there was any problems with any of the features of the game or any other parts then the players couldn't play the game which would results in the not wanting to play the game as it maybe be unplayable or that it may have lots of different bugs that will affect the game which the users doesn't like to see in games. If there was no testing done then you wouldn't be able to ensure that all the features of the system are in the game or that the functionality might not meet the desired requirements.

The tools used in the testing of Fear Of My Dreams:

➢ **Unreal Engine 4 Test Projects:** Built project solely for the testing of major features to the project and the system so that they are separate from the main project so that it won't affect the main project.
➢ **Unreal Engine 4 Test Levels:** Built test levels so that I can test minor features that project has in the test project so that it wouldn't affect the main project I knew they worked in the project.
➢ **Early game test Beta:** This is an earlier version of the game so that keep main and minor part can be tested before they are finalised.

Methods I used for Test Fear of My Dreams:

➢ Unit Testing
➢ Customer Testing

Each part of the testing is show and explained in its headings below and any participants who took they feedback is below too.

Unit & Integration Testing

Unit testing was done throughout the development process of the project, to ensure that certain function requirements where developed and build right in a way so that it would work well in the game and not affect the main development of the project.

What I used for doing my Unit Testing process:

✓ Test Projects not related to the game project
✓ Test Levels in the project test each as they are made in the game

Unit Test: Import 3D Models

Tools Used:

✓ Test Project
✓ Test Level

Reason for the Unit Test: I carried out multipliable tests as I was making the project. I done this test to see when the 3d models are been imported into the project and place in the test level will they interfere with any of the object in the level or cause any errors for the game while it been in the level.

Process:

➢ Made the models in blender, saving them and exporting them as .fbx files to be used in the Unreal Engine test project level.

➢ Then imported them into the project I check to see if any error happens when it finished importing them into the engine.

➢ After they were imported fully I place them into the test level and used the test character to interact with the object to see if it caused any problems with it.

➢ If no problems happened I moved onto getting the textures set for the object to see it any problems happened to the surfaces of the model or the textures on the model.

➢ If all was ok with the 3d model then the model could then be imported into the main project and changed to suit what was needed for it in the game.

Problems: While import the 3d models into the engine there were a few issues with the models themselves with some of the face on the models not a appearing as well as an error that kept appear if the models were not set the right way when they were been imported into the engine.

Solutions: The fixes for the first problems was a bug in blender when some of the models are been created it results in some of the faces on the models appearing backwards when they are been created so all that is needed to be done was to select the face and the face its linked to and use the option in blender to flip the face to the right direction. Second problem could be solved when the models are being exported for the unreal engine they have to set the edges to the models so that they are saved right and will not cause the errors in the unreal engine.

Unit Test: Import Characters & Animations

Tools Used:

✓ Test Project
✓ Test Level

Reason for the Unit Test: I tested the characters as they are being imported as well as the animation that work for the characters. I done this so that I knew that the character would work in the unreal engine as well as not cause any error within the engine. I also tested the animation as I know there can be a few problems when animations for characters are not imported correctly into the unreal engine.

Process:

➢ Made the characters using Adobe Fuse software and then uploaded the character to Mixamo for the rigging of those character when they were rigged and the animations were made I then uploaded them to the test project for testing.

➢ After the models were imported to the engine they were then check in the world to see if there were any errors with the model of them or their textures.

➢ If they we ok then they were used to make a blueprint for the character to move as well as a blueprint for the animation to work when the character is move.

➢ If all worked then they were tested and then finished to be import into the project to be used in the game.

Problems: The problems that occurred when the models were being imported into the test engine was that when they were placed in the test level the textures were not set right so they appeared to be see though which was not correct for the engine.

Solutions: I solved this by going into each texture material and changing the properties so that the character were not transparent when they were in the game engine.

Unit Test: Menus & GUI

Tools Used:

- ✓ Test Project
- ✓ Test Level

Reason for the Unit Test: I done testing on the Menus & GUI's as if they didn't work it would be hard for the users to navigate the game and wouldn't be able to play the game fully as they would always get stuck at the main menu and not be able to proceed to play the game.

Process:

- ➢ Made the Menus and GUI's using the built-in tools that the unreal engine 4 provides for making them.
- ➢ When each was creating I then made each of the menu blueprints so that they will work in the game for when the user is interacting with them.
- ➢ When the blueprints were made I then place them in the game so when the game starts or when in the level, they will then work as the game is played and that none will stop working or cause errors while in the game.

Problems: Some of the elements appeared the same so could get confusing when you are making the blueprints.

Solutions: I solved this by finding out how to add comments to the blueprints which made it easier to organise the blueprint into section to know what which done.

Unit Test: Game Mechanics & Blueprints

Tools Used:

- ✓ Test Project
- ✓ Test Level

Reason for the Unit Test: I done the for the blueprints as if the blueprints for the game didn't work correctly then the user would be able to play the game and they would be able to complete the levels and it wouldn't be fun for the player.

Process:

- ➢ I made each blueprint for the game in the blueprint editor so organised the blueprints and name them so that no blueprint would get confused with another blueprint.
- ➢ When each blueprint is made I then tested it by using the tools that unreal engine provides to have on screen testing so that you know when one element is no be used are is not doing what it should.

Customer Testing:

 A Customer user study I gave an earlier version of the game to the test group of people and asked them to play the game three time until the end of the game and after each time right down some general feedback about the game and any bugs they came across while they played the game so this could be changed later to improve the game and fix the bugs the tester came across while they played the game.
Before they started the game, I explained that I was still an early version of the game and that their feedback would really help in the development of the game. At the beginning, I explained the controls to each of them and what the goal of the games is as this was still yet to added to the game which would be after this test so to inform the player while they are playing the game.

There was a small group of five testers aged between 19 – 23.

As the testers played the game and recorded their feedback I watch them play the game without interacting with them to record my own feedback to help with the see how the controls of the game would work and if they needed to be change to make it easier for the users to use.
From this I learn that some for the testers found the controllers ok but a few got confused with some of the buttons while playing the game. From this I have changed the controls to be simpler for the users.

For their feedback was very general and mostly focus on the look of the menus in the game and the movement of the character and the enemies.

> ➢ They said that the Menus need to be improved need to look friendlier to the user and not so plain to see.
> ➢ The also concluded that the menus need to include more colour to add to the style of the game and to change the font of the text of the menu to a more horror themed font to give the user more of a horror theme style.
> ➢ For the character movement, they concluded that the player movement was very stringy and it need to be more flexible so that it will move easier with the controls.
> ➢ The also said that the enemies need to be slowed down as they were moving too quickly as the player seemed to be slower than them which made it harder for the player to play the game. This would be ok if there was different difficulty for the game.
> ➢ The controls need to be change so that if was friendlier to the user and they can understand them so not to get so confused with the controls.

Most of the feedback was very helpful to the game as it gave me more insight into what the players might want in the game and how they would like the play the game.

GUI:

This section will cover all the different menus and screen GUI's that will be in the game that the user will have access while they are playing the game that they will need to navigate between in order to play the game.

All the menus and screens are very basic, as they will only have simple buttons and text on the screen with a plan background because if the screen had too much content it would take away from the game and distract the player.

Menus

Main Menu:

Description: This interface appears when the game has started up. This lets the player start the game when they select the start game button on screen, they can also change the graphics size by selecting the options menu button.
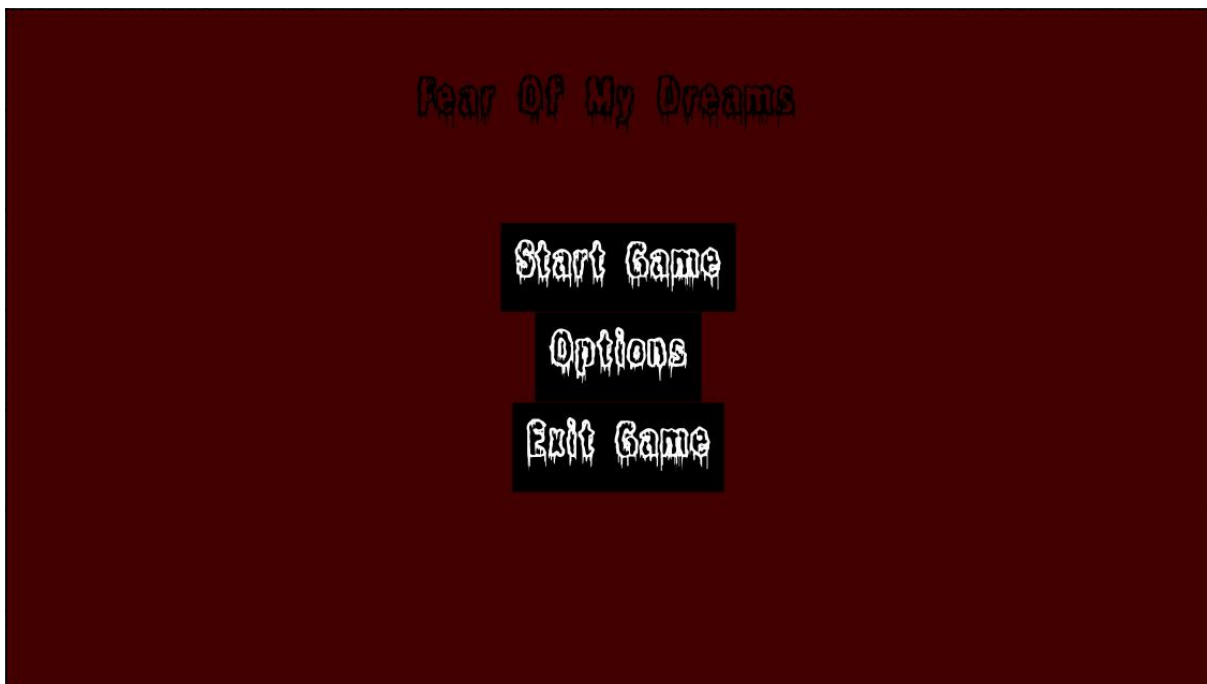
Options Section:

Description: This is part of the main menu it will let the user change the sizing of the graphic size that the screen will run on so that it will not affect the games performance.

Pause Menu:

Description: This interface appears to the player when they select the key or button while in the game. This interface give the user the option to return back to the main menu, exit the game and resume back to the game they were playing.
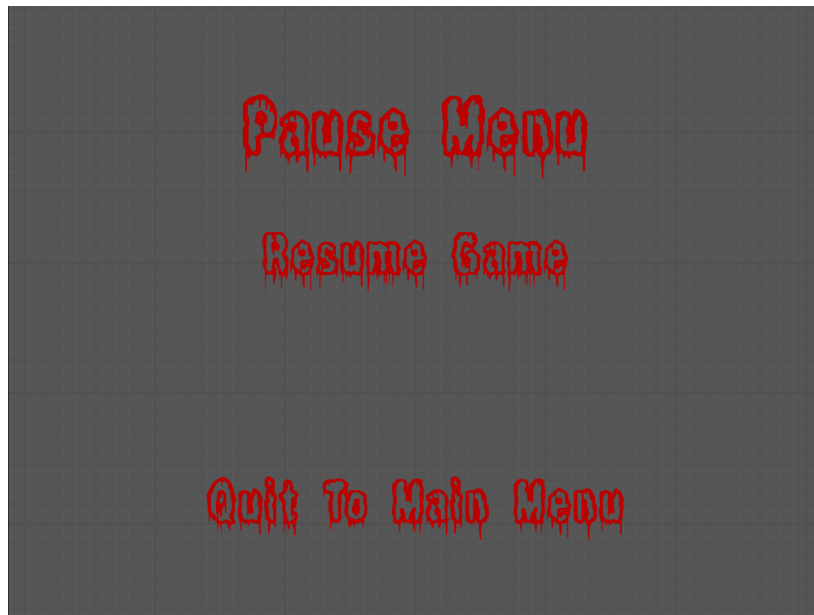
Death Screen:

Description: This screen appears when the player dies while in-game, this screen informs the player that they have been died and they are trapped in the game. This gives the user the option to start the level again or return to the main menu.

Finish Level Screen:

Description: This screen appears when the player has collected all the objects while they are in-game. This screen then tells the player they have finished the level when a message. This screen give the user the option to return to the menu or exit the game.
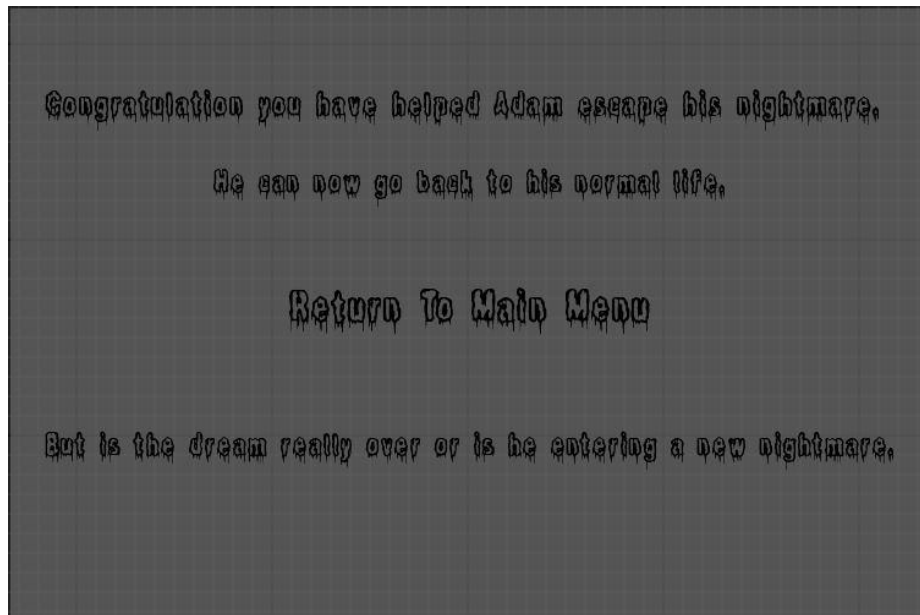
In-Game Goals screen:

Description: This screen appears when the player has started the game. This screen will inform the players what's the goal of the level and how they are to complete the level. This will only be show for 15 seconds so they can read it and inform them what to do.
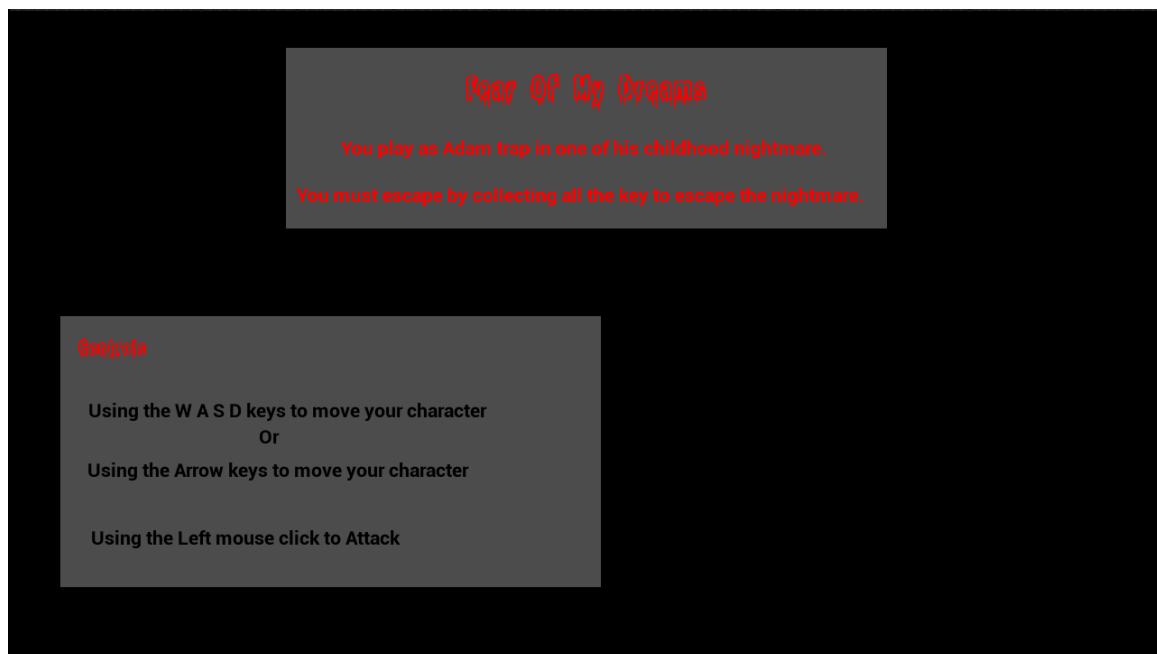
Character and Level Previews

This section of the project report will show the characters and the level environment

The main character that is in the game is shown here.

The environmental level preview to show to feeling the play will interact while playing the game.

Conclusion:

Milestones & Problems

Milestones: I set myself a goal to reach so that I could get this project finished within the set time for the project which is broken down into two section:

Self-set goals: These are the milestones that should be done over the course of the two sections to make sure the smaller parts work as well as look nice while they are in the game. These are the following:

- ✓ Make the menus and the in-game screen for the game.
- ✓ Testing menu as they are made in the game.
- ✓ Add the sound effects to the game parts.
- ✓ Testing the character's animation and movement while in the game.
- ✓ Testing to see if the AI is working correctly and not affect anything it shouldn't.

Required to do: These milestones are the main parts of the project that will need to be done to complete the parts for the game so that the play can play the game. These are deadlines that I set myself to do so that they could be done of the game these are:

- ✓ *Make the characters for the project.*
- ✓ *Animate the character using Mixamo.*
- ✓ *Create the 3D assets that will be use for the project.*
- ✓ *Create the 3d Structure that will be use for the project.*
- ✓ *Create the in-game mechanics so the player can play the game.*
- ✓ *Creating the AI that will run the enemy character in the game.*

Problems: The problems that happened while in the development of the game and outside of the game engine while making the assets that will be used in the game as well as the character and animation they will use.

Fuse/Mixamo: These were easy to use as I create the character a few times making sure that I was happy with them and that they worked well in the engine so that they wouldn't affect the games functionality or the mechanics when interacting with the other parts in the game. The main problems I had with Fuse and Mixamo was that when I first made some of my characters for the game and I was happy with them. But Fuse was updating their software as they have changed company ownership which made the software change. Some of the requirements it had changed so when the software updated the older character files I made when within the older software version, I the opened back up the files in the new software which then reset all the characters features back to the original character. This made it so that I had to recreate the characters in the new software.

When Fuse updated its software it also updated their Mixamo website for the rigging of their characters and the file type that could be used when the characters have been rigged. There was a download file type that was made for the Unreal Engine but when the website change or updated it removed this option on the website so that it was when the files were to be downloaded to be used for the Unreal Engine they were just basic files as this meant that there needed to be changes made to the files when they were imported into the Unreal Engine. These changes affected the textures and the animations of the characters so that meant that the textures had to be fixed and so did the animations so that they could be used with the character models when they were in the game.

Blender: I made most of my 3D assets that would be used in the Unreal Engine. I had very little to no problems with the models but the problems I did have slowed down some of the process of creating the model's assets for the game. As when the models are imported to the Unreal engine if the .fbx files are not set a set way they can interfere with some of the performance of some the game parts, while in the game as it may result in them been having to be reloaded in slowing down the performance of the game. While I researched the problem, I found out that this was an easy fix as there was only needed to make some change to the models as well as how they are exported from blender to be imports to the unreal engine. The other problem I had with blender was when the models assets are been create in blender and other parts are been done that when the models are been moved or creating new parts on the models that some of the faces of the models can sometime get flipped so this results in the face been missing when imported into the Unreal engine this is a well know bug but there is a simple option in blender that when the face is selected the option let the face be flipped back to the right direction so that it will reappear when in the Unreal Engine 4.

The last problem was understanding on how realistic my goals should be and how my limitations are set. This made it that I planned on doing too much a once not focusing on the main parts of the game and focusing on the small not so important parts a wasting time but I found out this just before it was too late to go back and that I got what I planned to do but still missing the parts I over planned to do.

Further Development & Research

Further Development goals for Fear Of My Dreams:

New Levels: By creating newer levels and taking older levels and changing them so that with newer assets they could be changed and made better with more time to work on them so that the player has more functionality in the levels to interact with while playing the game.

New Characters: By giving the players more characters or including a way for them create their own type of character that they can use in the game as well as customise it for their play.

New Enemies: This we be creating newer enemies for the game and create newer ways they could interact with the player in the game as to also recreate the older enemies can recreate them so to improve them within the game.

Add more functionality: Doing more research into way that the play can interact with objects and with the newer ways the character can move this will increase the playability of the game and can improve on what the players might look for in the game.

Research goals for Fear Of My Dreams:

User Reviews: By using reviews from tester or player who have played the game I will take into consideration what they said and implement it in the future and move forward.

Continue Learning & Update the game: I will continue working on Fear Of My Dreams to further increase my knowledge of the Unreal Engine and with this knowledge apply it to the game so that the game can improve to get better for future plans with it.

Closing Statement on future development and research for Fear Of My Dreams is that I hope to come back to this game one day and start from the beginning and create everything from nothing and improve on where I felt that it needed improving as well to apply newer knowledge that I will have gained over the next few years when developing newer game.

I hope to learn this new knowledge by starting a small group of people and making a game to see if we could someday turn that small group of people into a new Irish gaming company. This will give me new goals after college as well to further my knowledge in this area.

I plan to continue this specialisation to further my knowledge in this area of Game Development. This is where I hope to continue growing my knowledge and further evolving so to make good games as well as to re-make Fear Of My Dreams to better it and myself.

Appendix:

Project Proposal

Objectives

The main objective of the project is to develop a game that will let people enjoy themselves will they play the game and maybe scare them to. The game will have one level with different scare elements in it which will take on different types of nightmares that you may encounter in your life. These different nightmares will be from the small nightmares like being afraid of the dark, to the bigger nightmares where you are being trap in a dark place alone and not been able to escape it.

The target market for this is late teens (17) and adults (18+) as it may scare the younger ages. With this being for a higher age group this give me a chance to go into more detail with some of the ideas for the nightmares such as being followed by a character called Death I can make this as scary as I want so that it will scare the player as well and maybe just them some future nightmares.

The game will consist of one large level that will bring together elements from different ideas. These ideas were parts of different level idea but all brought together into one. This will make it so that will the player is playing the game there will be different elements to scare them in the game and it will seem that they are not playing the same level repeatedly.

I am using some random generation aspects in the levels for creating some of the 3D environments as well as the enemy generation which will generate some random parts to the levels so that they don't always run the same.

Background

As I am a big Horror game and Horror movie fan I thought that I would do something that interested me in the game I am developing for this project, so that I could make the most out of the horror part of the game with the nightmares. From playing other game types from horror to adventure games I found out that if I bring the two game types together I could have fun working on them in the game as is it a bit different from normal adventure game and horror games.

Will playing different horror games I learned what will scare the player while they are playing the game and what aspects emerge the players in the gaming experience while they are playing. With horror games this make the player feel like they are in the moment and they are the player in the game so that anytime they jump from been scared by an enemy or that they have died in the game it will make them feel like they are scared and don't want to play the part again.

But with most horror games to feel like the player is immersed in the game and that the environment is set so that it has a dark feel to the game so that the player can barely see what's on front of them but hear what is in the distance so they don't want to go any further then they have to.

Technical Approach

The Approach I plan on using is to breakdown all the parts of the game into individual sections to work on. I will start working on characters for the game as they will take the longest to model and animate in the game. I will make the characters in Adobe Fuse and will be doing the animations for the character both in the website Mixamo to create them and using them in the Unreal Engine 4 for the controlling of the character movements in the engine.

For the environments, I plan on breaking them up into one big level so that I can work on the one level and not affect the other parts in the games development. As each the level's environment is completed and tested with the characters, so that the players can't enter or can't access parts of the environments they shouldn't while playing the game.

When the level and characters are complete I will start working on the physics for the level so that the player can play the level and complete it as they go along while playing the game.

When all these parts are complete I will do most of my main testing myself so that I can find the bugs in the game and when I have finished testing the game I will get others to test the prototype of the game so I can see any bugs that may come up will they play the game.

Special resources required:

The type of software I will be using are:

•   The engine for the game that I will be using is the Unreal Engine 4 with its built-in blueprint and C++ coding editor for the develop in the engine.

•   I will be using Blender, 3ds Max and Adobe Fuse for the 3d modelling of the characters as well as the object that I will be use. Some of the 3d modelling will be done in the engine as well, as there is a 3d environment editor in the engine.

•   I will also be using Mixamo an online editor that will let me rig the characters for the game as well as makes the animation for the characters so that they can be used in the game for the movement of the characters in the engine.

Project Plan

Software Project	173 days	Tue 27/09/1(	Thu 25/05/17
Project Proposal	14 days	Tue 27/09/1(	Fri 14/10/16
Requirment Spec	13 days	Mon 17/10/1	Wed 02/11/16
Project Prototype	24 days	Tue 01/11/1(	Fri 02/12/16
Character Design & Animation	7 days	Tue 01/11/1(	Wed 09/11/16
3D Object Modeling	7 days	Wed 09/11/1	Thu 17/11/16
Enviroment Modeling	7 days	Thu 17/11/1(	Fri 25/11/16
Level Physics	7 days	Sun 25/12/1(	Mon 02/01/17
Project Devepolment	117 days	Mon 05/12/1	Tue 16/05/17
Testing	21 days	Tue 03/01/1	Tue 31/01/17
Project Completion	76 days	Tue 31/01/1	Tue 16/05/17
Final Report	39 days	Mon 03/04/1	Thu 25/05/17
Report	25 days	Mon 03/04/1	Fri 05/05/17
Show Case Prep	5 days	Mon 08/05/1	Fri 12/05/17
Presentation Prep	9 days	Mon 15/05/1	Thu 25/05/17

Monthly Journals:

Reflective Journal: September

My Achievements

This month I didn't do much as it was my first week. I started by doing some research in different types of coding for the game. I done some coding by making some destroyable wall and seen if I can use this for the game. I also done some work on creating some test characters to use for the coding in the game so I know how to bring in created characters and how to animate them in the game.

I done my notes for my pitch project presentation in the last week and had my presentation in the first week of the next month and they approved it so I could go ahead with the project with was good now I can continue my work on the project.

My Reflection

I feel my research into coding destroyable walls went well as I know now how to best use this as I could apply this to other structures in the game so that the game will not also be the same each time the levels are played by the gamers.

With my research with the characters I made I now have a way to bring in the characters into the game engine and how to bring the animation I have with them so that they can work in the game for the player's character in the game.

Intended Changes

For the next month, I will do more research into how I can best use the random generation with the destroyable structures and how I can get the random generation to spawn the destroyable structures as the level begins and that all the structures will not be missing when the structures spawn. I also will have to decide on how many character I will need for the enemies in the game as well as how many playable characters I will be using and what each character's animation will look like as they are being used in the game.

Supervisor Meetings

Haven't been assigned a Supervisor yet
Date of Meeting: N/A
Items discussed: N/A
Action Items: N/A

Reflective Journal: October

My Achievements

This month I continued my research on random generation aspect in the Unreal Engine 4 by looking up different types of tutorials on how to do this and looking on the Unreal Engines website where they have lots on documents for teaching you on how to do different topics. I also done more research into testing and working with 3d character models and 3d objects in the Unreal Engine 4 and what are the limits of what you can do with them in the Unreal Engine 4. I worked on making different types of characters to use in the game for player and for the enemies in the game.

My Reflection

I feel my research into random generation hasn't been going well as there is not a lot of information on random generation in the Unreal Engine 4 so I will have to keep looking into this. But my research into getting character models and 3d models to work in Unreal Engine 4 is going good as I have been working on creating different types of character models of different sizes and with different structures. Also, working with getting 3D models to work in Unreal Engine 4 is going great as I have had no problems in this yet.

Intended Changes

For the next month, I will do more research into using random generation and how I can get the random generation work. I will also work on setting up the enemies for the game so they will attack the player and they will function right. I will work on developing functions the player can you while they are playing the game and I will also design and program the UI for the player to see and that it works and looks ok while play the game.

Supervisor Meetings

Haven't meet my Supervisor yet meeting is set to be after reading week.

Date of Meeting: 10th Nov 2016

Items discussed: Still to be done

Action Items: Still to be done

Reflective Journal: November

My Achievements

This month I continued my research on random generation aspect in the Unreal Engine 4 by looking up different types of tutorials on how to do this and looking on the Unreal Engines website where they have lots on documents for teaching you on how to do different topics. I have made a test character for the game and also animated the character also made an use controller for the character so that the user can move the character around the game. I have also Made one of the two main UI and GUI that is need in the game. I have also added in some of the AI function that I may need in the game but still they are working progress they work in small parts but are good to see how they work.

My Reflection

I have done more research into random generation is a bit more better now as I have done some more work with working with different parts on different project. So now I can use random generation a bit more in small part first for the project. I have created a test character for the game and put it into the game, add animations to it and made a controller so what the user can control the character in the game. With this I also done research and work on UI and GUI for the game while working on other projects.

Intended Changes

For the next month, I will work on getting a prototype made for the midpoint and will also work on all the documents for the project. I will also work on the development of the game so that I will have a main prototype made for the midpoint so that I can show the project off in the midpoint and get some great feedback for the project and so they can see what progress I have made on the project and where the project is heading.

Supervisor Meetings

Date of Meeting: 8th Dec 2016

Items discussed: Talking about what we have done in are project and what will we need to have done for are midpoint presentation and are we up to date with everything we are doing.

Action Items: Talked about what we could do to further improve on arounds in our projects

Reflective Journal: December

My Achievements

This month I had my mid-point presentation so I worked on getting the last of the bit done before I had to present the project in the midpoint. After I done my mid-point for the error that came up I worked on researching the solutions for the errors that happened to me before I had to present the mid-point. When I found the solution for some of the errors I add it to the list of what needs to be changed for the project to work as it should. After I done some of the research I focus on my exam and study for the exams coming.

My Reflection

From working on the project for the mid-point I learn some of the main errors that came up for me can be fix by changing some of the smaller things in the project and from my research on the other parts to the project I could make the game itself run smoother so that the game can be easier to run as well as be able to change some of the settings to the game so that it will not be so heavy to run for the game on low grade computers.

Intended Changes

For the next month, I will work on fixing the last of the problems that came up, continue doing more research and completing the major parts to the project.

Supervisor Meetings

Date of Meeting: Still to be decided when were back

Items discussed: N/A

Action Items: N/A

Reflective Journal: January

My Achievements

This month I continued my research into improving the performance of the game will the game is running as well when the user is playing the game. While doing this research, I worked on applying different ways to improve on the game's performance to see which worked for the game the best from doing this I found that the different ways improved the game in different areas so now I will be working how to bring the different ways together so that these can improve the game in all areas. While working on different 3D model objects I have made multipliable models of the same models so that the user can decide on what type of detailed models they would like in the game so that it and feel better to play and that it will not affect the performance will the user is play as higher detailed models can affect the performance of the game while running.

My Reflection

I have worked to further improve the performance of the game by changing the settings of the game as well as the ways the game run while the user is gaming the game. I have found different ways to doing this but will work to see which is bested to use so that it's easier to run. I also worked on making different models for the characters in the game as well as the enemies that the player will face in the game and some of the 3D model's objects that will be used in the game so that the scenes in the game can look and feel real to the users play experience.

Intended Changes

For the next month, I plan to continue working to improve the performance of the game as well as work on making more models and objects to be used in the game. I also plan on working on more the of game mechanics and working to improve the usability of the game so it easy to play and understand.

Supervisor Meetings

Date of Meeting: 3th Feb 2017

Items discussed: We talked about the midpoint, about how we ended up with the marking we did and on what areas of the project that we need to work on to improve are grades as well as what we could add to our projects so they are more appealing to the users.

Action Items: Talked about the midpoint before the exam and what could be improved in the project.

Reflective Journal: February

My Achievements

This month I worked on making the main parts of the levels by creating more 3d models to fill out the levels. I then continued working on more of the models that I have still yet to add to the levels as they will still need to be worked on. I also worked on making more changes to the performance to help with it running on the computer.

My Reflection

I felt that working on some of the models were much easier than some of the bigger models as when the models were finished and place into the game I had to make a few changes to the model so that it would work and fit right in the place in the game. When the main models were finished and place in the game I worked on fixing their textures and setting it some that the models will not affect the performance of the game while playing it.

Intended Changes

Next month I will be working on making the poster for the showcase and adding the last of the parts to the game. From there I will fix any problems with the last of the models and then I will add the last parts of the mechanise for the levels. When there are, all done, I will work on getting the testing done on the game by myself and getting others to test the game so I can see other play the game and see parts that need to be fix for

Supervisor Meetings

Date of Meeting:

Items discussed: We talked about what we will have to add to the projects to get the them from before the showcase and what changes we will have to add the projects to make them look and run better.

Action Items: Talked about the projects and what changes could be made to the projects before the end of them at the end of the semester.

Reflective Journal: March

My Achievements

This month I worked on making the last of the models for the game so that they could be add game and set so that they are working and not affecting the performance of the game. I had to remake some of the enemy characters as some of the files that were linked to the game had broken and the had to be removed from the game and recreated so that they wouldn't affect the game while it was running. When these were changed I then had to reapply them to the mechanics in the game so that they could work again in the game. But as some of the mechanics were linked to the character at the time I had to remake some of them for the game. I also worked on some of the poster for the game but will be finished and will done before the showcase.

My Reflection

I felt that working on some of the last of the models was easy but when the character went wrong it took me a bit of time to fix them so that they would work again with the game. When I was working on remaking the parts that broken with the game I knew most of it as I could remember most of it as so didn't take as long as when I first made them. When I finally finished fixing the problems with the enemy character and fixing the mechanics for the game to work.

Intended Changes

For the next few weeks I will be working on finishing the poster for the showcase and doing all the main parts for testing the game. If I come across any problems to the game while doing my testing I will change them and fix them so that they will not affect the game while it is running or been played. I may also make so changes to the settings so to make it perform better will the users are playing the game.

Supervisor Meetings

No meeting in March will plan future meeting in April

Date of Meeting: N/A

Items discussed: N/A

Action Items: N/A

References:

Software Links:

These are the links to the various technologies that I use for the making for the 3D assets and main assets that I used for my game as well as the making of my game.

Adobe.com. (2017). Buy Adobe Photoshop CC | Download photo editing software free trial. [online] Available at: http://www.adobe.com/ie/products/photoshop.html [Accessed 5 May 2017].

Adobe.com. (2017). Create 3D models, characters | Download Adobe Fuse CC (Beta). [online] Available at: http://www.adobe.com/ie/products/fuse.html [Accessed 5 May 2017].

Foundation, B. (2017). blender.org. [online] blender.org. Available at: https://www.blender.org/ [Accessed 5 May 2017].

Mixamo.com. (2017). Mixamo: Quality 3D character animation in minutes. [online] Available at: https://www.mixamo.com/ [Accessed 5 May 2017].

Unrealengine.com. (2017). Game Engine Technology by Unreal. [online] Available at: https://www.unrealengine.com/download [Accessed 5 May 2017].

References

Game Links:

This is the link for the documents I used online for the making of my game as there is a lot of different elements in the development of the game for this library of documents that unreal provides for their developers and the marketplace that unreal provides if you wish to buy any assets for the game.

Docs.unrealengine.com. (2017). Unreal Engine 4 Documentation. [online] Available at: https://docs.unrealengine.com/latest/INT/ [Accessed 5 May 2017].

Unrealengine.com. (2017). Marketplace - UE4 Marketplace. [online] Available at: https://www.unrealengine.com/marketplace [Accessed 5 May 2017].

This is the link to where I got my audio files that are used for the elements in my game

Freesound.org. (2017). Freesound.org - Freesound.org. [online] Available at: http://www.freesound.org/ [Accessed 5 May 2017].

Dafont.com. (2017). DaFont - Download fonts. [online] Available at: http://www.dafont.com/ [Accessed 5 May 2017].