

University of Regina

ENSE 400/477

Project Startup

Project Night Terror Requirements & Specifications

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1 Introduction

1.1 Purpose

The purpose of this project is to create a twisted, scary, and enjoyable gaming experience in a first person perspective.

1.2 Scope

1.2.1 In Scope

This project will have two non-playable characters (NPCs); one that guides the player and one that is the main antagonist. Along with these two, there will be enemy NPCs that will challenge and/or attack the player and passive ghost NPCs. The enemy NPCs will consist of at least 3 different demon characters that are all affected by light to some degree. The NPCs will also have varying levels of AI depending on their purpose.

The playable area will be a landscape similar to Qu'Appelle Valley, Saskatchewan and will also include interiors and/or exteriors of popular haunted buildings inspired by different areas in Qu'Appelle Valley.

The game will have items such as a gun, flashlight, or cross. These are used to defeat enemies and aide the player. These items and the player's health will be upgradable by finding collectables in different areas.

Also in the scope of the project will be dynamic menus, i.e. menus that change, as the player progresses and also the ability to save the game. Music and sound effects will be added to enhance the over experience. Sub objectives will also be used to add to the story and add a means of getting an upgrade. The story will be told by NPCs, collectibles, etc. The collectibles will be audio files, letters, items, etc.

Finally, accessibility options will also be added to allow for subtitles, brightness changes, speed of the playable character, etc. to allow for a user-friendlier gameplay.

1.2.2 Out of Scope

This project will not include any form of multiplayer. The project will also have a limit on quality of graphics, number of assets, in depth voice acting, sound track, etc.

1.3 Main Objectives and Success Criteria

- 1) Realistic Landscape & Environmental Creation
 - a. Key buildings with interiors and/or exteriors
 - b. Qu'Appelle Valley area
- 2) Two main Non-Playable Characters (NPCs)
 - a. Passive ghost (guides player)
 - b. Mostly passive demon (main antagonist)
 - c. Multiple NPC with Varying AI
 - d. Passive NPC mostly minimum AI (walking around, etc.)

- e. Various Enemy AI levels (Attacks, abilities, etc.)
- 3) Dynamic menus such that it changes as player progresses Ex. Main Menu environment changes from sunny to stormy
- 4) Multiple items (flashlight, pistol, etc.)
- 5) Upgradable Items
 - a. Optional (Can complete game without them)
 - b. Usually obtained in side objectives
 - c. 0 to 3 upgrades per item
- 6) The ability to save progress and return to that point without penalty
- 7) Start to Finish Aspects
 - a. Main menu
 - b. Opening
 - c. Main Game
 - d. Credits
 - e. Some Music & Sound Effects
- 8) Collectables
 - a. Letters, texts, messages, etc.
 - b. Objects that relate to area
- 9) A set of main and side objectives

1.4 Secondary Objectives

- 1) Easter eggs & references
- 2) Trophies, achievements, etc.
- 3) Create a multiplatform game, i.e. for Xbox One, PS4, etc.
- 4) New game+ (second play through)
 - a. Harder and different NPC AI
 - b. Level changes
- 5) Complete Set of Music & Sounds
- 6) Voice Acting
- 7) More Items
- 8) Better Details

- a. Environment (Nicer grass, water, etc.)
- b. Items (Intricate design)

1.5 Constraints

Constraints of the project include time to complete tasks, having to learn new or more in-depth tools, money, etc. To limit strain of constraints the project will be designed while also watching tutorials, using free programs, using easy to use programs, and using helpful software.

1.6 Overview

Project Night Terror is a first person realistic horror game that will allow players to experience a story driven game from start to finish. The player will be able to find collectables, items, and different leveled non-playable characters. The game is based around ghost stories, real locations, and/or fictional events in Saskatchewan.

2 Proposed Project

2.1 Functional Requirements

Table 2.1-1. Shooting a Weapon

Number	Requieiment
1	User must be able to pick up ammo
2	User must be able to reload weapon
3	User must be able to fire a weapon
4	Enemies must take damage and despawn when health is 0

Table 2.1-2. Picking Up an Item or Collectable

Number	Requieiment
1	User must be able to pick up an item
2	The game must show the user has the item
3	The game must show the user information about the item
4	Item must despawn once added to inventory

Table 2.1-3. Saving & Loading

Number	Requieiment
1	Saving and loading must hold information that will allow the user to return to the exact same playable state
2	Saving or loading needs to say when it is finished.
3	Loading needs to inform if save exists or not
4	Saving and loading must be done across levels to save progress

2.2 Non-functional Requirements

Table 2.2-1. Heads Up Display

Number	Requieiment
1	Game must display useful in game infromation
2	Game must update the above information
3	Information must make sense and adds to the experience

Table 2.2-2. Menus

Number	Requieiment
1	Menus must have same format
2	Menus must have good information and be easy to find it
3	Menus must change and update whenever the player opens them

2.3 Software Requirements

The only main requirements needed for the project is an easy to use game engine. For this project, Unreal Engine 4 will be used.

2.4 System Models

2.4.1 Scenarios

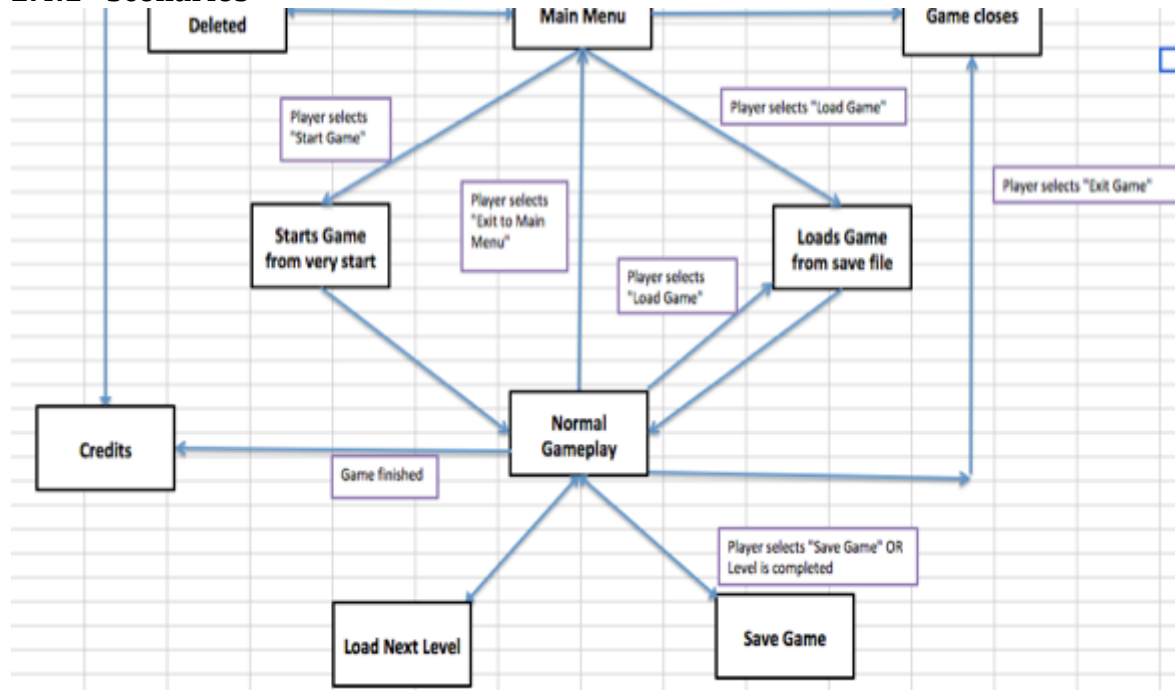


Figure 2.4-1. Basic Flowchart of the Game

2.4.2 Object Model

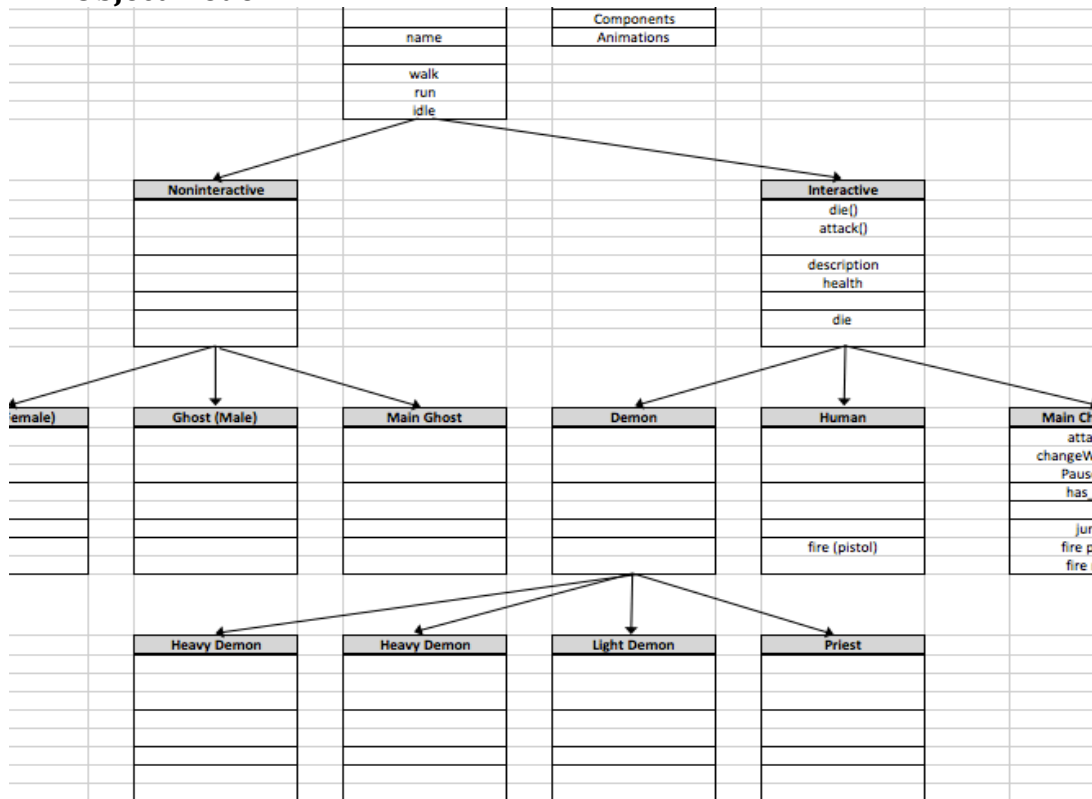


Figure 2.4-2. Character Class Diagram

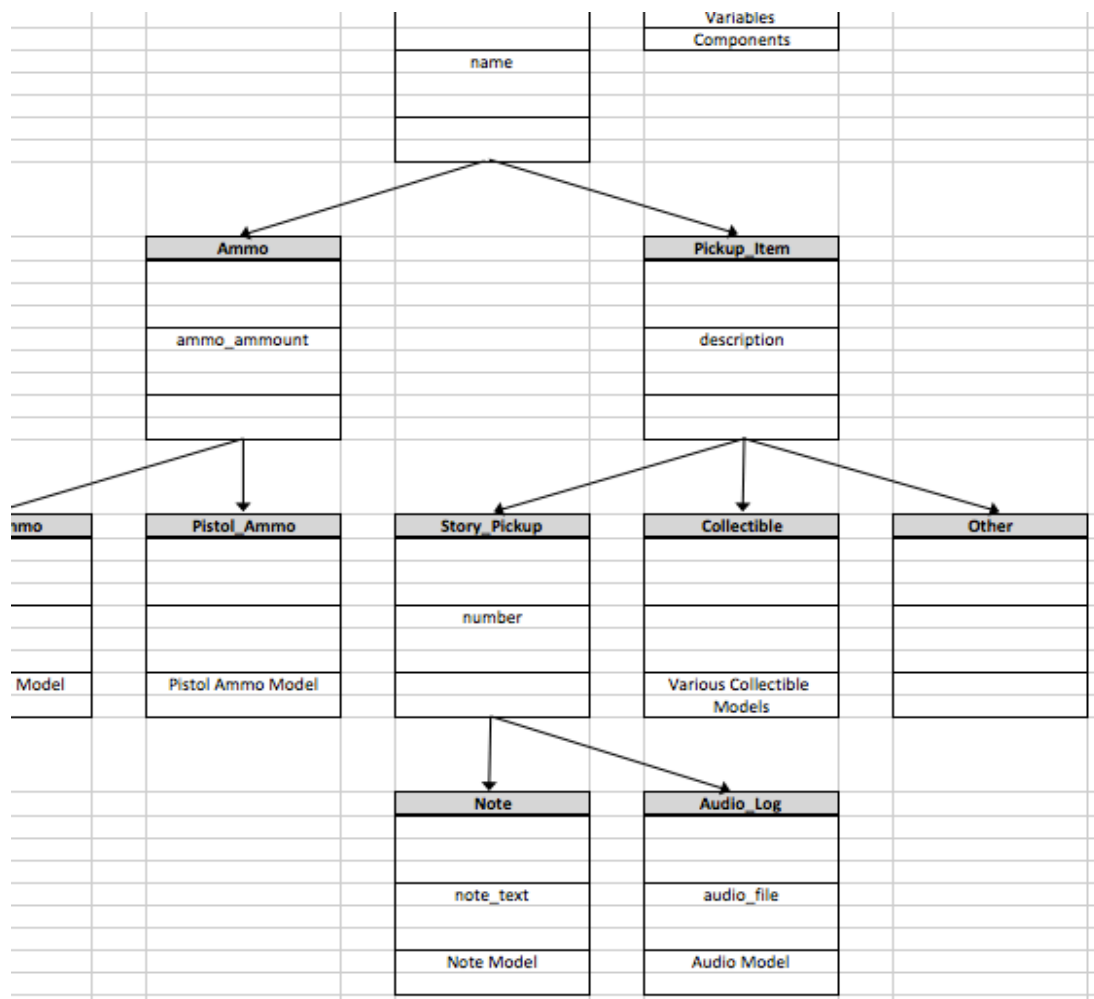


Figure 2.4-3. Collectable Class Diagram

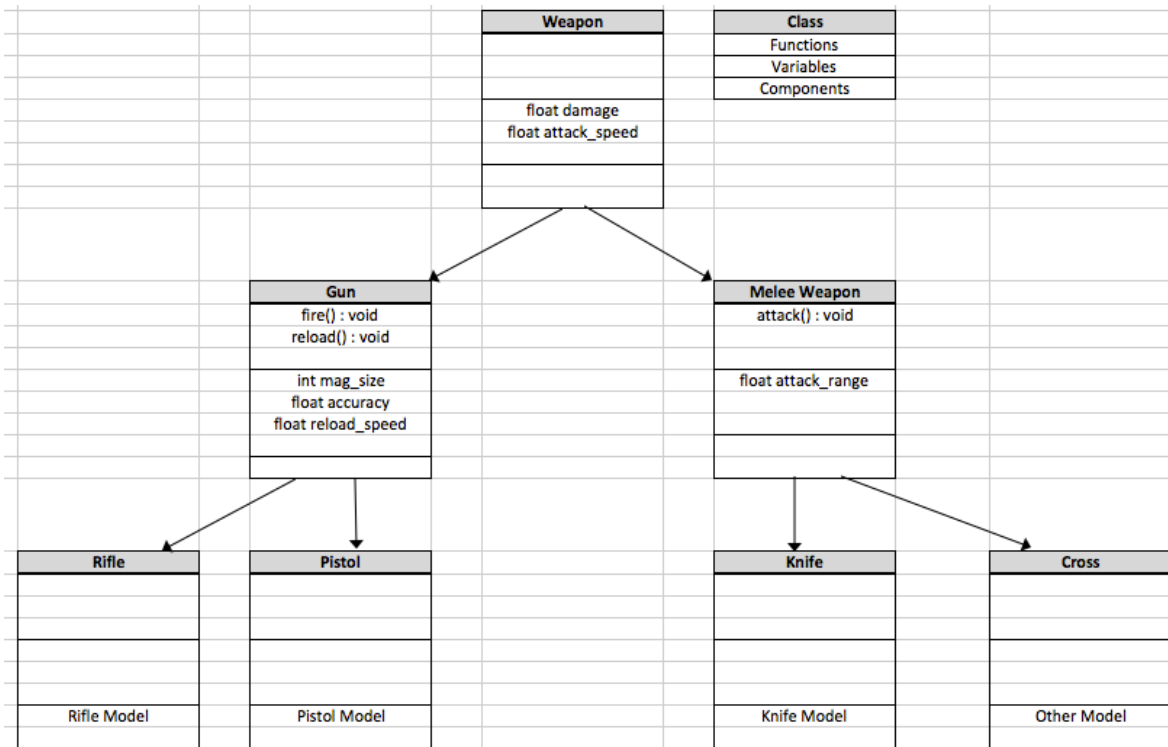


Figure 2.4-4. Weapon Class Diagram

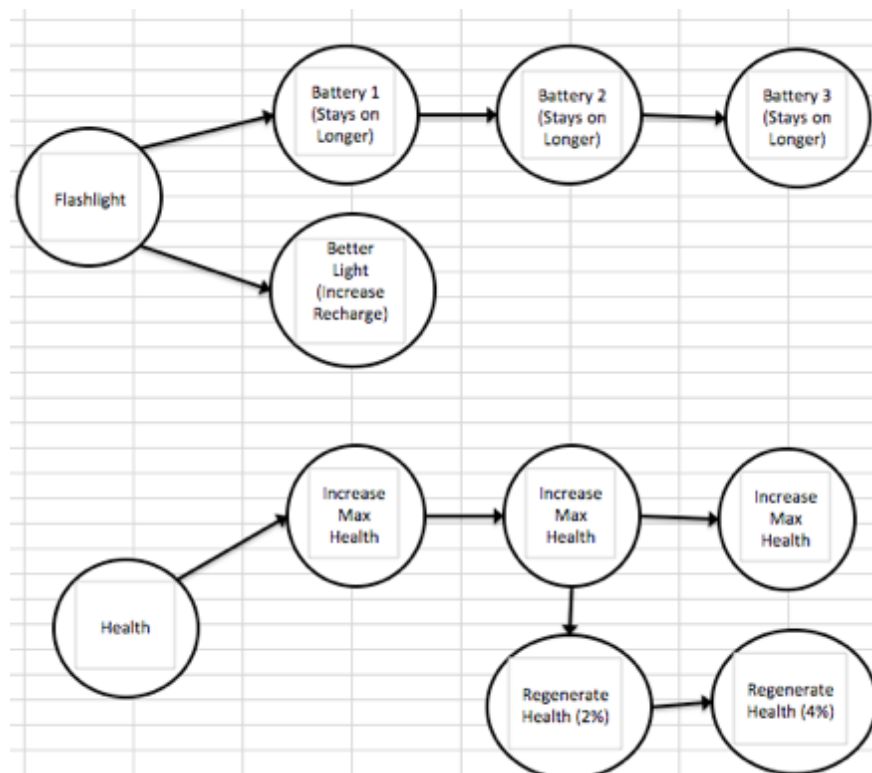


Figure 2.4-5. Example of Perk Trees

2.4.3 User Interfaces & Menus

This section gives a brief overview of the different user interfaces (UI) and menus the player will encounter.

The head up display (HUD) is what the player will see during most of the game, as it will be the information shown as they are playing the actual game. This includes health information, item information, and a motion sickness/aiming dot.

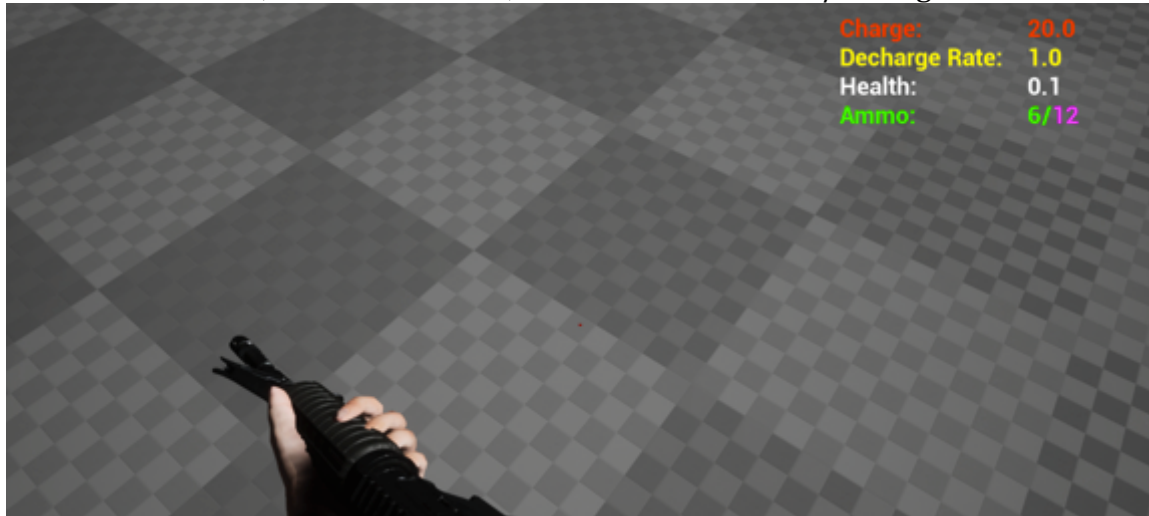


Figure 2.4-6. Basic HUD

The main menu is what the player will first see when the game is opened. The menu will allow the player to play a game from the start, load a saved game, delete a saved game, change settings, and exit the game.



Figure 2.4-7. Main Menu

The item menu will let the player view information about objectives, items, collectables, and perks. The player will also be able to select perks from this menu.



Figure 2.4-8. Item Menu

Pause Menu:

This menu will let the player save or load a game, view and change settings, exit to the main menu, and exit the game.



Figure 2.4-9. Pause Menu