Game Design Document (GDD)

NUN WITH A GUN

Cameron Vanderberg, Angelo Constantinides, Melissa De La Vega, Nicole Anne Alfonso, Ebenezer Ikekhide, Enrique Estrada, Gabriel Macaraeg, Joshua Swan, Michael Parodi, Igor Ferraz
Professor Sasso
Cogswell University of Silicon Valley
GAM355

April 18, 2022

Table of Contents

*Hyperlinked Table of Contents

1. High Concept

- Title: *Nun with a gun*
- Genre: *Action Adventure/ Survival Horror*
- Perspective: Third Person
- Platform: *PC*
- Game engine: Unity
- Programming Language: C#

1.1 Backdrop

The lore for the story of the game is as follows:

A nun has become aware that her church is the reason for the zombie apocalypse and is determined to escape the island in which she lives to find help. With the aid of other rebelling nuns she travels through the island looking for helicopter pieces and weapons to defeat the zombies on the island. However, as she goes through the island things seem to fall out of place. The nuns begin to fade and the zombies look more human. The nun is actually mentally insane and has created this zombie apocalypse scenario to satisfy her killing tendencies.

1.2 Hook

The game begins as a normal zombie shooter in which you need to escape the island and find help.

For the initial cutscene, the nun is unhappy with her life. She dismisses another day of church and watches the townsfolk with a nervous expression. Her Senior Nun takes note of the player characters unease, and ominously lets her know that there is a larger plan for her future. The nun takes up the task to solve the mystery of the zombie apocalypse and bring forth the truth of the town's situation.

However, as the story progresses the player becomes aware that something is off; that maybe they aren't the hero they believe they are.

1.3 Game Loop

The game loop is as follows:

The player receives a quest, is tasked to fight zombies and retrieve items. After the player finishes the task, the player is rewarded with upgraded items and the next area is opened for the player to proceed. This is the basic breakdown of the game loop and how it functions and is maintained in the game.

1.4 Core Game Mechanics

The core game mechanics are the basic fighting/shooting mechanics:

Fight zombies to survive.

Progress through gated zones to get to the goal.

Finish tasks to proceed quests.

1.5 Scoring/ Leveling/ Progression

There is no scoring system. There is a reward system for the player. For every time the player manages to complete a quest, they are rewarded with a stronger weapon. The zombies for the proceeding areas will be more difficult to fight.

The player will start off with a basic melee weapon and a basic gun. The player will progress through these gated areas. The key items the player retrieves each have a piece of lore tied to the world. The key items are important to each zone. The player character will forcibly take the item ideally making the player experience a gradually increasing narrative dissonance where the player will slowly realize that the player character is not the Hero of the game.

1.6 Goals

The main goal of the player is to obtain the helicopter pieces and escape the island.

The sub goals are finishing each chain of quests and obtaining better weapons to survive each zone.

Other goals include killing as many 'zombies' as possible to survive.

1.7 Unique Features

The most unique features would be the quest system as well as the smart AI for both Zombies and NPC's.

1.8 Look and Feel

Low poly, very kid friendly as it can be.

It has a brighter feel to a game about killing these and at some points feels cartoony.

2. Features List

2.1 Art and Sound Implementation

       The Art and Sound Implementation will work as most games do, to give context to the world you are in, while still giving it a feel and style. We plan to use a Low Poly graphical style to build our game in. As the player goes through zones, we will definitely see the style change more and more depending on where you are in the city. However the overall atmosphere is designed to just give off a ruined, zombie filled city.

2.2 Quest System

       The way the Quest System is going to work is like the following: Around each zone you can find a few NPC's each having a quest for the player. Quests can be divided into two categories. One is the *Main Quest*. These are quests that push the plot of the story and help you get a better grasp of what you are doing. The second are *Fetch Quests* or *Side Quests*, these are quests that you can find that reward you with SCRAP and flesh out the world a lot more.

2.3.1 Enemies

       There is only one type of enemy, that is the Zombies. The Zombie's however are a pretty scary force just because of their sheer numbers, and they are tankier than one might expect. Easy enough to fight one on one, but if too many surround you they can be a true challenge.

2.3.2 Allies

       Allies in this world are fellow nuns who have escaped the church before you. They will guide the player to their objectives and will encourage them on their journey. But be careful, they are not all that they seem.

2.4 Level Up System

       Leveling up in this game does not work the same as many others. In our game the level up is unlocking new zones or districts in the world. This not only gives the Player access to new weapons, but also increases the difficulty because that means more zombies.

3. Game Mechanics & Engineering

*Stretch goals

3.1 Movement Engineering

WASD, Mouse controls
- W - Move Forward
- A - Move Left
- S - Move Down
- D - Move Right
- Mouse - Camera controls

3.2 Health*

Health Items
- Open inventory to access health items
- Use and regain health

3.3 Shooting

GUN CONTROLS
- MMB scroll - change to Gun Weapon
- LMB, LMB hold - Shoot
- RMB hold - Aim

MELEE CONTROLS
- MMB scroll - change to melee weapon
- LMB - melee attack
- LMB hold - melee combo attack

3.4 Actions

Keyboard
- [Enter] - Various, Interact (Quest Journal), Advance text
- [G] Show/Hide cursor
- [X] Enter/Exit vehicle

3.5 Scrap*

Found Via Quests
- In some quests you will be asked to find and bring scrap back this will allow for certain triggers to happen ie. giving you a weapon or unlocking a door.

3.6 Progression

Chain Quests
- Finish a series of quests to advance onto the next quest
- Once all tasks are complete, the player reaches the goal

4. Asset List

4.1 Engineering Asset List
List of possible Controls (*Stretch goals)

- Running
- Shooting
- Looting *
- Jumping
- Healing
- Interact with NPC
- Switch Weapon
- Crafting (SCRAP)*

Detailed Game Mechanics

- Zombie AI
- Zombie Progressive Difficulty
- Loot Probability*
- Workbench*
- Waypoint*
- Entrance key SCRAP check*

4.2 Art Asset List
Characters:
- Player Character (Nun)
- Quest Giving NPCs
  - Sister Dalorius, Sister Martha, Sister Agatha, Sister Margarethe (Nuns)
- Enemies:
  - Zombies (Male, Female)
  - Generic NPCs
  - Boss

Environment:
- Backgrounds/Backdrops
  - Zombie apocalypse
    - Broken+Abandoned Buildings, Cars
    - Corpses
  - Zone 1: CHURCH
  - Zone 2: CONSTRUCTION
  - Zone 3: RESIDENTIAL
  - Zone 4: PORT
  - Zone 5: HOSPITAL

Items:
- Weapons:
  - Guns: Pistol, Rifle, Machine Gun
  - Melee: Cross stake, Bat with Nails, Machete
- Quest Items
  - Item 1: Battery, Item 2: Lights, Item 3: Propane tank
- Other items to interact with

○ Healing, Ammo for each weapon

Animation:
- Player Character:
    - Idle/Walk/Run/Talk/Jump/Attack/Taking DMG
- Friendly NPC:
    - Idle/Walk/Run/Talk/Jump/Attack/Taking DMG
- Enemies:
    - Idle/Walk/Aggro/Attack

VFX:
- Character (PC, NPC, Enemies) Attacks
    - Attack/movement/hurt/healing

UI:
- Start Menu
- Options Menu
- Inventory Screen
- Quest Journal
- Map
- Health
- Weapon

4.3 Audio Asset List

Player Character:
- Walking
- Attacking (Yelling/Grunting)
- Movement
- Dialog
- Dying

NPCs (variants):
- Walking
- Attacking (Yelling/Grunting)
- Movement
- Dialog
- Dying

Enemies (variants for all enemies):
- Fighting
- Dying

Weapons:
- During Fights
- Reloading
- Holding weapon

Ambient Noises (rain, leaves, splashes, etc.)

Music:
- Overworld Music
- Fighting Music
- Boss Music

5. Extra

5.1 Outstanding Bugs
- Spawners can spawn items inside meshes making them unreachable
- Cursor does not show when quest dialogue pop up, must press "G" for the cursor to show
- Zombie Spawner spawns all zombie facing the same direction and static
- Some areas in the map are missing collision making player fall off the map
- Zombies can attack from afar without needing to reach player
- Zombies can attack even when "dead" on floor
- There is a hole in one of the zones (right next to the zombie horde)
- Multiple buildings lost their colliders

5.2 Two More Weeks
- Retexturing the 3D models to better resemble the character designs.
- Create Zombie Bosses for each zone.
- Fixing colliders
- Implementing the story dialog to fit the quests.
- Decorate mini-map
- Add victory screen

5.3 Four More Weeks
- Implementing original UI assets.
- Creating in-game beginning story cutscene
- Sound effects
- Implementing character expression assets.
- Creating a Tool Tip system to teach the player how to play the game.
- Save states.

5.4 Team Member Contributions
[Writer]
(Project Lead) Cameron Vanderberg: Dialog [1] [2]. Story [1], Created NPCs, GDD, Slides [1], Music [1]
Angelo Constantinides: Dialog [1] [2]. Story [1], Created NPCs, GDD, Slides [1]
Melissa De La Vega: Dialog [1] [2]. Story [1], Created NPCs, GDD, Slides [1]

[Artist]
Nicole Anne Alfonso: Level design, Created barriers+Fixed collisions for [Zone 5], [Various artworks], Main menu concept [1], Character design [1] [2] [3], [Sprite design], GDD, Slides [1]
Ebenezer Ikekhide: Level design, Created barriers+Fixed collisions for [Zone 1], Boss monster concept [1], GDD, Slides [1]
Enrique Estrada: Level design, Created barriers+Fixed collisions for [Zone 3], GDD, Slides [1]
Gabriel Macaraeg: Level design, Created barriers+Fixed collisions for [Zone 2], UI design [1], GDD, [Title Screen UI and Logo], Slides [1]
Joshua Swan: Level design, Created barriers+Fixed collisions for [Zone 4], Prop edits, GDD, Slides [1]

[Engineer]

Michael Parodi: Zombie AI, GDD, Slides [1], Weapons
Igor Ferraz: Quest Machine [1], Minimap [1], GDD, Slides [1], Title Screen, Zombie AI