Necronomicon

**Project Outline**

A First Person, survival-based shooter; the objective of the game is to kill all the zombies in an un-dead apocalyptic city, cleansing the city of the undead. The player will shoot through hordes of zombies which attack the player and try to kill the player. Placed around the map are interactable powerups and weapon unlocks collectables which the player can use to assist them in their goal and enhance the players ability. Upon defeating the horde. The player must face the final boss of the level which must be defeated to finish the game. The target audience of the game are 16+ year olds due to the crude humour as well as violence towards human being like objects according to PEGI rules. The game has a development time of 1 month with no budget. The platforms supported are Windows and Linux systems.

**Characters**

|  |  |  |
| --- | --- | --- |
| **Name** | **Description** | **Picture** |
| Walker (Enemy AI)  Actions:   * Idle * Walk * Attack * Die | Slow walking character, that walks towards the player if close to the player and pursues the player until it has died. Has more health than the ‘runner’ and can deal more damage, however, is slower than the ‘runner’. |  |
| Runner (Enemy AI)  Actions:   * Idle * Walk * Attack * Die | Fast running character that runs towards the player if close to the player and pursues the player until it has died. Has less health than the ‘walker’, and less health however is faster than the ‘walker’. |  |
| Big Brains (Enemy AI)  Actions:   * Idle * Run * Attack * Die | Final boss of the level, it is a fast moving, large, high health enemy which is the only enemy present in the boss battle. It has a health bar and upon defeating it, the level finishes. |  |
| Shotgun (Player Control)  Actions:   * Shoot * Reload | The shotgun is a short range, low magazine size, long reload time weapon. However, the weapon has the second highest damage output as compared to other weapons. The gun has infinite ammunition. The shotgun is one of multiple weapons the player can use if unlocked. |  |
| AK-47 (Player Control)  Actions:   * Shoot * Reload | The AK-47 is a long-range low damage gun, with automatic fire. It has a large magazine size and a relatively short reload time. The gun has infinite ammunition. The shotgun is one of multiple weapons the player can use if unlocked. |  |
| Revolver (Player Control)  Actions:   * Shoot * Reload | The Revolver is a medium range, medium damage gun with a short magazine size with high damage output. The gun has infinite ammunition. The Revolver is one of many guns the player can use if unlocked. |  |
| Axe (Player Control)  Actions:   1. Swing | The axe is a melee weapon the player can use. It has a very short range, however the highest damage output. It is very high risk-reward ratio weapon. The axe is one of many weapons the player has access to if unlocked. |  |

**Controls**

1. Aim
   1. Mouse Input
   2. Right Joystick (Gamepad)
2. Move
   1. ‘WASD’ (Forward, Left, Back, Right)
   2. Left Joystick (Gamepad)
3. Shoot
   1. Left Mouse Button
   2. Right Trigger (Gamepad)
4. Use Interactable
   1. ‘E’ Key
   2. North Button (Gamepad)
5. Jump
   1. ‘Space’ Key
   2. South Button (Gamepad)
6. Crouch (Toggle)
   1. ‘Left Control’ Key
   2. East Button (Gamepad)
7. Sprint (Toggle)
   1. ‘Left Shift’ Key
   2. Left Joystick Press (Gamepad)
8. Pause (Toggle)
   1. ‘ESC’ Key
   2. Menu Button (Gamepad)
9. Menu Select
   1. Left Mouse Button
   2. South Button (Gamepad)

**Meaningful Interactions**

1. Pause Menu
   1. Pauses game when pause button is clicked.
   2. Freezes the game until resumed.
2. Powerups
   1. When the player interacts with the powerup they get given a special ability.
   2. Placed throughout map.
3. Weapon Interactions
   1. When a player has a gun or weapon, they can fire the gun or swing.
   2. Reduces the ammo in the weapon.
   3. Affects enemy health.
   4. Can reload the weapon.
4. Start Game
   1. Starts game when start button is clicked.
   2. Can start game when transitioning between different parts of the game.

**Game World**

1. Rules of the World
   1. Player
      1. Has Health, which is lost if attacked by a Zombie.
      2. Has access to 4 different weapons which can be unlocked.
      3. Can pickup powerups.
      4. Can jump, sprint, crouch and move around the world.
      5. If Health reaches zero, player dies and the game ends.
      6. Player can roam freely around the map.
   2. Weapons
      1. Has Infinite Ammo
      2. 4 different weapons which can be unlocked upon collecting collectables.
      3. Each weapon has varying stats.
2. Content of the world
   1. Pickup/Powerup
      1. Can be picked up by the player if they interact with it.
      2. Can activate a variety of abilities for the player.
      3. Can also allow the use of different weapons.
      4. Spawned randomly throughout the map.
   2. Weapons
      1. Has Infinite Ammo
      2. 4 different weapons which can be unlocked upon collecting collectables.
      3. Each weapon has varying stats.
   3. Collectibles
      1. Player gains points by destroying enemies.
   4. NPC’s
      1. Walker
      2. Runner
      3. Big Brains (Boss)

**Game Experience**

* + - Visual Experience
      * First Person Perspective
      * Zombie Theme
      * High Quality Graphics
      * Dystopian Style of Map
      * City Based Map
      * Aesthetic appropriate menus.
      * Ambient Lighting
      * Animations
        + Gun Magazine Change/Reload
        + Melee Weapon Swing.
        + Collectible Idle Animation.
        + Zombie Behaviour Animations
    - Audio Experience
      * Background Music Loop, Dark Theme.
      * Sound Effects
        + Gun

Shoot sound.

Reload sound.

Change Magazine sound.

* + - * + Melee Weapon

Swing sound.

* + - * + Zombie

Idle/Run sound.

Attack sound.

* + - * + Final Boss

Idle/Run sound.

Attack sound.

* + - * + Collectible Sound

Pick-up sound.

* + - * + Player

Walk sound.

Jump sound.

Occasional Commentary.

**Game Mechanics**

1. Player Controls
   1. Gamepad Input
   2. Keyboard and Mouse Input
2. Interactable System
   1. Controls variables in game.
3. NPC Navigation
   1. Paths NPC’s can travel.
4. Map Limits
   1. Player cannot go past set areas.
5. Player Manager
   1. Governs Health and other such variables of the player.
6. NPC Manager
   1. Governs Health, Behaviours, and other such variables of the NPC.
7. Weapon Manager
   1. Governs Ammo, Fire rate, Behaviours, and other such variables of the Weapons.

**Enemies/Obstacles**

1. Zombies (Boss too)
   1. Animations
      1. Idle
      2. Run
      3. Attack
   2. Scripts
      1. Zombie Controller
   3. Behaviour
      1. Idle
      2. Attack (If within close distance)
      3. Follow (If within distance)
   4. Obstacles
      1. Must defeat Zombies with weapon of choice to complete game.
      2. Must not be killed by Zombies to complete game.